MINNESOTA STATE BOARD OF INVESTMENT

MEMBERS:

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

MINNESOTA STATE BOARD OF INVESTMENT MEETING

JANUARY 11, 1984

&

INVESTMENT ADVISORY COUNCIL MEETING

JANUARY 10, 1984

AGENDA

STATE BOARD OF INVESTMENT

Wednesday, January 11, 1984

9:00 A.M.

Room 118

State Capitol
Saint Paul

		TAB
1.	Approval of minutes of October 26, 1983 Board meeting	
2.	Executive Director's Report - H. Bicker	
	A. Quarterly Investment Review	A
	B. Equity Manager Performance	B
	c. Performance Review	C
	D. Portfolio Statistics	D
3.	Report from Investment Advisory Council - M. Malevich	
4.	Supplemental Report of Asset Mix Committee: Performance Objectives - H. Bicker, M. Malevich	E
5.	Suggested guidelines to review external money manager performance	F
6.	Venture Capital Paper	G
7.	Northwest Growth Fund Proposal	H
8.	Investment Guidelines for external bond managers	I
9.	External Equity Manager Contracts—options	
10.	Draft of proposed legislation	J
11.	Seminar	
12.	Manager updates	K

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

MINUTES

STATE BOARD OF INVESTMENT

October 26, 1983

The State Board of Investment met on Wednesday, October 26, 1983 at 9:30 A.M. in Room 118 of the State Capitol. Governor Rudy Perpich, Chair, State Auditor Arne H. Carlson, State Treasurer Robert Mattson, Secretary of State Joan Anderson Growe and Attorney General Hubert H. Humphrey III were present.

The minutes of the August 17, 1983 meeting were unanimously approved.

Executive Director's Report

Mr. Bicker reviewed the economy, inflation and interest rates. He stated the economy still shows strength, and staff believes the economy will continue to prosper. He cited factors that will result in continued consumer spending, such as the tax cut and the decrease in new unemployment claims. He also discussed other factors affecting the economic recovery, including the impact of inventory accumulation, housing starts, capital spending, and the large federal deficits. Mr. Bicker stated the staff anticipates an approximate 6.0% increase in the GNP whereas the consensus predicts a 5.2% increase.

Mr. Bicker noted that inflation for the year ending August 31. 1983 was up 2.4%. He stated that staff is concerned inflationary pressures will build as the recovery matures. He estimated an inflation rate of 6.7% for the year ending June 30, 1984.

Mr. Bicker stated that interest rates have declined moderately since the last Board meeting. Staff expects interest rates to fluctuate in a small range over the next 6-9 months. He stated that the stock market is currently driven by two primary forces: interest rates and earnings comparisons. He stated that stocks are relatively fairly valued at current levels.

Mr. Bicker reviewed the asset allocation for the Basic and Post Retirement Funds. The bond component of the Post Retirement Fund has moved closer to its targeted level, while the equity component of the Basic Fund is slightly greater than 65%. Mr. Bicker briefly reviewed portfolio statistics.

Mr. Bicker outlined a proposed timetable for implementation of the investment plan for the Basic Retirement Funds. He stated that the Minnesota Certificate of Deposit Program will be run in the short term investment fund by State Street Bank. Mr. Bicker noted that the index fund implementation schedule has been lengthened since the timetable was prepared to avoid forced trades and to reduce transaction costs. The program for index fund options will be delayed accordingly. Mr. Bicker reviewed the proposed schedule for the retention of bond managers, and stated it is appropriate to hire the managers in conjunction with the commingling of bonds if authority is granted by the Legislature. The real estate program will be implemented over the next two to three year period, and the reallocation to the equity managers will be completed pursuant to discussion at the last Board meeting. Mr. Bicker will present a paper on venture capital investments to the Board and Council at their next meetings in December.

Mr. Bicker reviewed a proposed resource program with Apache Oil Corporation. He stated the program follows the Board's guidelines and serves its goal of providing an inflation hedge for the portfolio. Ms. Malevich, Chair of the Investment Advisory Council, stated that the Council members do not have expertise to judge whether the proposal is a good investment. She stated that the Council interrogated staff at length to determine why it is a good investment. The Council recommends that the Board recognize and accept staff as the final authority on this type of investment. She stated the Council's role will be to monitor staff's due diligence, but the Council cannot analyze each individual deal. Ms. Malevich emphasized that these investments were similar to stocks and bonds in that the Council felt it was not necessary to bring each individual resource investment to the Board for specific discussion. She stated that the Council will be kept abreast of the investments being made. In response to a question from Mr. Humphrey, Mr. Bicker stated that the staff has discussed the investment with co-investors such as IBM, GM and Lutheran Brotherhood, and Advisory Council member Ken Gudorf. Mr. Bicker stated that if Board approval is granted, additional work will be conducted prior to the final commitment. Mr. Carlson stated that the investment is very conservative - - Apache and Shell Oil and the co-investors have strong reputations. He noted it is not that easy to get into oil and gas deals due to the tax benefits. Mr. Humphrey emphasized his concern that due diligence is performed. Mr. Carlson moved approval of the proposal. The motion passed unanimously.

Legislative Proposals

Mr. Bicker outlined proposals for legislation during the 1984 session: the commingling of bonds and the addition of common stock futures. In response to a question from Mr. Carlson, Mr. Bicker stated that cost savings from commingling bonds could result in savings of approximately $200,000/year to the retirement funds. He stated that the staff will work closely with the retirement funds in drafting the legislation. Mr. Bicker also outlined a legislative proposal for authority to invest in common stock futures. He noted the authority has been requested by the external managers. Mr. Carlson moved approval of both legislative proposals. The motion passed unanimously.

Investment Advisory Council Report

Ms. Malevich summarized the Investment Advisory Council meeting. After a lengthy discussion of the Apache Oil proposal, the Council concurred with the recommendation of the subcommittee and staff regarding the utilization of the Wilshire 5000 and the real estate investment program.

Asset Allocation Subcommittee Report

Mr. Bicker reviewed the work of the asset allocation subcommittee of the Investment Advisory Council. The subcommittee unanimously recommended the Board utilize an extended index fund because the S&P 500 does not encompass the whole equity market. Extended index funds have also had superior historical returns to the S&P 500 by 1-2% per annum. The subcommittee also unanimously recommended that the 10% allocation to real estate be invested over the next 2-3 years in diversified open end commingled funds, diversified closed end commingled funds, and specialty funds. Mr. Carlson expressed concern about the backgrounds of staff members working on real estate, recommending that the Board hire top notch professionals for the real estate and other alternative investments the Board is pursuing. Mr. Bicker stated that he has allocated two staff members to the real estate area, and is also using the resources provided by Evaluation Associates, and other public and private funds throughout the country. He stated extensive information will be provided to the Board and Council in evaluating the proposed funds. Mr. Carlson moved approval of the plan for real estate investments. The motion passed unanimously.

Manager Selection Committee Report

Mr. McCann, Chair, summarized the work of the Manager Selection Committee and recommended the Board retain Wilshire Associates to manage the index fund. Mr. Carlson moved approval of the resolution (attached). The motion passed unanimously.

Investment Advisory Council Membership

Mr. Bicker reported there are three vacancies on the Investment Advisory Council and requested Board approval to commence the screening process for new members. In response to a question from Mr. Carlson, Mr. Bicker recommended the Board look for candidates with corporate backgrounds who have experience with multi-manager systems and alternative investments. Ms. Malevich concurred. In response to a question from Ms. Growe, Mr. Bicker stated that the same process will be utilized whereby each Board member will appoint a representative to serve on the Committee to screen the candidates and make recommendations to the Board. Mr. Humphrey recommended the Board seek an individual with experience in oil and gas investments.

Minnesota Housing Finance Agency Proposal

Mr. Bicker outlined the extension of the mortgage program with the Minnesota Housing Finance Agency. Ms. Growe moved approval of the resolution (attached). The motion passed unanimously.

Escheated Property

Mr. Mattson reported that under state law the State Treasurer has the authority to dispose of, with the approval of the State Board of Investment, 10,000 opera recordings that came to the state as escheated property. Mr. Mattson asked the Board for discretion to dispose of the collection, probably selling some records and donating others to libraries and universities throughout the state. Mr. Humphrey recommended that the Historical Society be consulted. Mr. Carlson moved that the Governor consult with the Arts Commission to determine the value of the collection and a recommended method of disposal so that the Board could consider the issue at its next meeting. Mr. Dunlop, Deputy State Treasurer, said that an inventory has to be conducted prior to appraisal. Thus far, approximately 1000 records have been inventoried. Mr. Mattson moved that the records be transferred to Mr. Carlson. Mr. Humphrey seconded Mr. Carlson's motion. Mssrs. Perpich, Humphrey and Carlson and Ms. Growe voted in favor of the Carlson motion. Mr. Mattson voted in the negative.

Annual Report

Mr. Bicker stated that the Board would receive a draft of the annual report in the next few weeks for its review and comment.

Manager Updates

Mr. Bicker noted that external manager updates are included in the Board folder. A more detailed evaluation procedure for the external managers and third quarter performance data will be presented at the next meeting.

The meeting adjourned at 10:15 A.M.

Respectfully submitted,

Howard Bicker

Howard J. Bicker
Executive Director

Attachments

RESOLUTION OF THE
STATE BOARD OF INVESTMENT

WHEREAS, the State Board of Investment (SBI) has authorized its Outside Money Managers Selection Committee (Outside Manager Committee) to obtain proposals from and evaluate organizations providing Index Fund Manager services, and

WHEREAS, the Outside Manager Committee, in conjunction with SBI staff, Evaluation Associates, Inc., and persons representing the Various Minnesota public retirement funds, have solicited, received and evaluated proposals from the principal institutions providing Index Fund Management services in the United States, and

WHEREAS, the aforementioned have interviewed the principal institutions providing such services, and

WHEREAS, based upon this process, the Outside Manager Committee unanimously recommends that the SBI: 1) select Wilshire, Associates as its Index Fund Manager, 2) initially commit approximately $1.2 billion to index fund management and 3) formally review its index fund management commencing in July of 1984 and every year thereafter, and

WHEREAS, the SBI and SBI members' staffs have reviewed the actions of the Outside Manager Committee and materials generated thereby,

NOW, THEREFORE, the SBI:

1. Appoints Wilshire, Associates as its Index Fund Manager.

2. Directs its Exeutive Director, with assistance from SBI legal counsel, to negotiate and execute an Index Fund Manager

Agreement with Wilshire, Associates as expeditiously as reasonably possible.

3. Directs SBI staff to carefully monitor the performance of its Index Fund Manager and, commencing in July of 1984 and every year thereafter formally review and report to the SBI on the performance of the Index Fund Manager.

October 26, 1983

RUDY PERPICH, Governor
Chairman, State Board of Investment

RESOLUTION OF THE
STATE BOARD OF INVESTMENT

WHEREAS, the State Board of Investment (SBI) and the Minnesota Housing Finance Agency (MHFA) entered into a Mortgage Purchase Agreement on June 18, 1982 (Mortgage Purchase Agreement) through which the SBI committed to the acquisition of certain seasoned home mortgages, and

WHEREAS, since the execution of the Mortgage Purchase Agreement, the market interest rate for Mortgage Loans such as those to be originated for and purchased by the MHFA from the proceeds of bonds issued therefor has fallen substantially, and

WHEREAS, there is presently no demand for Mortgage Loans at the interest rate set forth in the Mortgage Purchase Agreement, and

WHEREAS, the SBI and MHFA are desirous of amending the Mortgage Purchase Agreement by recomputing Mortgage Loan Interest rates so that the remaining lendable proceeds of the bonds issued by the MHFA will be utilized to make Mortgage Loans to first-time home buyers of moderate income, and

WHEREAS, the SBI has determined that amending the Mortgage Purchase Agreement as provided in the attached Supplemental Mortgage Purchase Agreement will result in a prudent investment of certain funds for which the SBI has investment authority,

NOW, THEREFORE, the SBI authorizes its Chairman and, in his absence, its Executive Director, to execute the attached Supplemental Mortgage Purchase Agreement substantially in the form presented.

October 26, 1983

Howard Bicker

RUDY PERPICH, Governor
Chairman, State Board of Investment

January 6, 1984

TO: Members, Executive Council
State Board of Investment
Land Exchange Board

FROM: Rudy Perpich
Governor

SUBJECT: Scheduling of future meetings

Regular meetings of the Executive Council, the State Board of Investment, and the Land Exchange Board will be held at 9:00 A.M. on the first Wednesday of March, June, September, and December, if a quorum is present. Additional meetings will be scheduled as needed.

I hope this schedule will allow members to plan their calendars in advance for these meetings.

January 6, 1984

TO: Members, Executive Council
State Board of Investment
Land Exchange Board

FROM: Rudy Perpich
Governor

SUBJECT: Scheduling of future meetings

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AGENDA

INVESTMENT ADVISORY COUNCIL
MEETING

Tuesday, January 10, 1984

7:30 A.M.

MEA Building Conference Room
41 Sherburne Avenue
Saint Paul

		TAB
1.	Approval of minutes of October 25, 1983 meeting	
2.	Executive Director's Report - H. Bicker	
	A. Quarterly Investment Review	A
	B. Equity Manager Performance	B
	C. Performance Review	C
	D. Portfolio Statistics	D
3.	Supplemental Report of Asset Mix Committee: Performance Objectives - H. Bicker, M. Malevich	E
4.	Suggested guidelines to review external money manager performance	F
5.	Venture Capital Paper	G
6.	Northwest Growth Fund Proposal	H
7.	Investment Guidelines for external bond managers	I
8.	External Equity Manager Contracts	
9.	Draft of proposed legislation	J
10.	Seminar	
11.	Manager updates	K

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
Room 105, MEA Building
55 Sherburne Avenue
Saint Paul 55155
296-3328

MINUTES

INVESTMENT ADVISORY COUNCIL

October 25, 1983

The Investment Advisory Council met on Tuesday, October 25, 1983 at 7:30 A.M. in the MEA Conference Room, Saint Paul.

Members Present: Mitzi Malevich, Chair, Gordon Donhowe, Paul Groschen, Richard Hume, Malcolm McDonald, Mike McLaren, Judith Mares, Michael Rosen, Joseph Rukavina, Harvey Schmidt, and Ray Vecellio.

Members Absent: Kenneth Gudorf, Joan Smith.

Staff Attending: Howard Bicker, Jeff Bailey, Roger Henry, and Teresa Myers.

Others Attending: Karen Dudley, Richard Ennis, Elton Erdahl, Debbie Feist, Paul Hayne, Mike Ousdigian, and Elaine Voss.

The minutes of the August 16, 1983 meeting were unanimously approved.

Ms. Malevich, Chair, welcomed Joseph Rukavina to the Council. She discussed the several vacancies on the Council and noted the resignations of Peter Anderson and Wesley Wadman to avoid any perceived conflicts with their roles as employees of outside firms managing assets for the Board.

Executive Director's Report

Mr. Bicker reviewed the economy, inflation and interest rates. He stated the economy still shows strength, and staff believes the economy will continue to prosper. He cited factors that will result in continued consumer spending, such as the tax cut and the decrease in new unemployment claims. He also discussed other factors affecting the economic recovery, including the impact of inventory accumulation, housing starts, capital spending, and the large federal deficits. Mr. Bicker stated the staff anticipates an approximate 6.0% increase in the GNP whereas the consensus predicts a 5.2% increase.

Mr. Bicker noted that inflation for the year ending August 31, 1983 was up 2.4%. He stated that staff is concerned inflationary pressures will build as the recovery matures. He estimated an inflation rate of 6.7% for the year ending June 30, 1984.

Mr. Bicker stated that interest rates have declined moderately since the last Board meeting. Staff expects interest rates to fluctuate in a small range over the next 6-9 months. He stated that the stock market is currently driven by two primary forces: interest rates and earnings comparisons. He stated that stocks are relatively fairly valued at current levels.

Mr. Bicker reviewed the asset allocation for the Basic and Post Retirement Funds. The bond component of the Post Retirement Fund has moved closer to its targeted level, while the equity component of the Basic Fund is slightly greater than 65%. Mr. Bicker briefly reviewed portfolio statistics.

Mr. Bicker reviewed the timetable for the implementation of the investment program for the Basic Retirement Funds. He stated that construction of the index fund would likely take longer than was initially anticipated in order to minimize transaction costs. He stated that no specific date for the index fund had been designated. Mr. Bicker stated the retention of bond managers would coincide with the commingling of bonds if authority were granted by the Legislature. Evaluation Associates will provide a list of candidates after the committee has established criteria. In response to a question from Mike McLaren, Mr. Bicker stated that implementation of the options program would be postponed in conjunction with the delay in the index fund.

Resource Program

Mr. Bicker outlined the proposed resource investment with the Apache Corporation. He stated he wants State Board of Investment authority to move ahead with the investment for the Basic Retirement Funds subject to final negotiations. In response to a question from Mr. Rosen, Mr. Bicker stated that the proposal is structured conservatively and entails no land purchase or drilling risk. He stated the proposal will provide a potential inflation hedge, fulfilling the purpose of resource investments in the investment program for the Basic Retirement Funds. In response to a question from Judith Mares, Mr. Bicker stated that the Board would not earn the anticipated return if not enough oil were pumped or the price drops substantially.

Ms. Malevich stated that the Council does not have the resources to analyze each individual deal, but must rely on staff's input. Mr. Donhowe concurred with Ms. Malevich's recommendation that the staff not come to the Council for approval of each specific deal. However, he stated that it is the Council's role to assure that the staff has performed its due diligence. He expressed concern that staff has relied on data provided by the deal-maker and other investors. Mr. Donhowe suggested that outside resources, such as independent geologists, may be used to analyze the deal. Mr. Rosen stated that it is impractical for the Board and Council to approve each individual deal. Ms. Malevich stated that the issue is to determine a process for these types of investments. Mr. Bicker stated that since the Board has the fiduciary responsibility, its review and approval is required in the investment process. He stated all stock and bond investments are approved after the fact.

Mr. Donhowe recommended that the Council suggest to the Board that staff is responsible for performing the due diligence, and the Board will not approve each proposal as a separate agenda item. Mr. McDonald recommended that the Board be asked to approve the process for these investments. Mr. Donhowe moved that the Investment Advisory Council report to the Board that the Council interrogated the staff as to the due diligence performed on the proposed resource program and is satisfied that staff did a thorough job. The Council further recommends that staff be delegated responsibility for making direct investments in resource programs.

Asset Allocation Committee Report

Mr. Bicker reviewed the Council subcommittee's decision to track the Wilshire 5000, and the subsequent decision of the selection committee to recommend the retention of Wilshire Associates. Ms. Mares expressed concern about Wilshire's expertise, stating she was troubled about hiring an organization that hasn't directly managed money. She noted concerns about tracking error, fees, and transactions costs. Mr. Bailey outlined the reasons for Wilshire's selection, including their resources and research capability and the depth and continuity of their personnel. Ms. Mares expressed concern about the ability to execute the trade on both the buy and sell sides. Mr. Donhowe noted that very few organizations have extensive experience with over-the-counter trading. Mr. Bicker stated the trade would be conducted over a 3-4 month period. Ms. Malevich noted that the trade would be costly regardless which firm was selected. Mr. Bicker estimated transaction costs between $5-10 million. In response to a question from Mr. Rosen, Mr. Bicker stated that historically the Wilshire 5000 has returned 1.5%-2% over the S&P 500. Mr. Donhowe moved approval of the recommendation to select Wilshire Associates.

Mr. McLaren expressed concern about the fees paid to Wilshire. Ms. Mares suggested that fees be structured so that the state benefits from the future business gained by Wilshire. Mr. Donhowe recommended the staff closely monitor every detail of the trade as it is conducted. Mr. Rosen concurred with Ms. Mares' suggestion that fees be designed with consideration for the import of the state's business to Wilshire.

Mr. Donhowe's motion was approved. Ms. Mares abstained.

Real Estate

Mr. Bicker outlined the proposed investment program in commingled real estate funds for the Basic Retirement Funds. In response to a question from Mr. Rosen, Mr. Bicker clarified the state would not invest in syndications offered to the general public. Ms. Mares moved approval of the real estate investment program. The motion passed unanimously.

Legislative Proposals

Mr. Bicker outlined proposals for the 1984 legislative session authorizing addition of common stock futures and a commingled bond fund. Ms. Malevich recommended that a compromise be reached with the retirment funds on a commingled bond fund prior to its introduction in the legislature. Mr. Bicker stated he will work closely with the funds and the master custodian to determine income distribution with the commingled fund. Mr. Groschen stated that the introduction of external stock managers has resulted in delays in determining share values making fund administrative moves difficult for MSRS.

Mortgage Proposal

Mr. Bicker outlined the proposal to reapprove the Minnesota Housing Finance Agency housing program. The program was unanimously approved.

Manager Update

Mr. Bicker stated that comprehensive external manager updates would be available at the next Council meeting.

The meeting adjourned at 9:30 A.M.

Respectfully submitted,

Howard Bicker

Howard J. Bicker
Executive Director

Tab A

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REVIEW

BASIC RETIREMENT FUNDS

September 30, 1983

MINNESOTA STATE BOARD OF INVESTMENT

BASIC RETIREMENT FUNDS

Third Quarter 1983
Summary

ASSETS

The market value of the Basic Retirement Funds' assets declined 1.5% during the third quarter. However, since the equity market rally began in August 1982, asset values have risen 39.7%. The value of the Basic Retirement Funds' assets over the past five years are displayed below:

		$ Million	Percent Change
1978		1,397	+ 13.8
1979		1,627	+ 16.5
1980		1,962	+ 20.6
1981		2,148	+ 9.5
1982		2,806	+ 30.6
1983	1Q	2,944	+ 4.9
	2Q	3,145	+ 6.8
	3Q	3,098	- 1.5

INVESTMENT RETURNS

The total rate of return on the Basic Retirement Funds' assets was -1.8% during the third quarter. Total fund returns were adversely affected by the first down quarter the stock market has experienced since the August 1982 rally began. The Basic Funds' allocation to common stocks rose from the previous quarter as the external equity managers committed cash reserves to stocks.

	Asset Mix		Total Return
	6/30/83	9/30/83	Third Quarter
Common Stocks	59.1%	60.4%	- 3.2%
Bonds	31.3	30.2	0.3
Cash	6.0	5.6	2.1
Alternative Equity Assets	3.6	3.8	2.6

EQUITY PERFORMANCE

The Basic Retirement Funds' third quarter common stock returns were hampered by the weak relative performance of the external equity managers. The external managers' concentrations in small capitalization, high growth issues were particularly responsible for their poor performance, as these sectors of the market corrected severely in the third quarter. Beutel Goodman turned in the best total portfolio return, with its emphasis on low P/E, low price-to-book value stocks. Managers with fully invested positions and concentrations in the technology (ex. IBM), financial, and transportation sectors (e.g., Loomis, Trustee & Investors, and Alliance) produced the poorest results. The aggregate external manager portfolio continues to emphasize the technology, financial and transportation sectors, with underweightings in energy and utilities.

Total Portfolio Returns

	Third Quarter 1983	Since Inception 3/1/83
Fred Alger	- 3.2%	12.5%
Alliance Capital	- 7.9	6.0
Beutel Goodman	1.2	11.0
Forstmann Leff	- 1.1	11.7
Hellman Jordan	- 3.0	1.7
IDS	- 5.5	8.8
Investment Advisers	- 1.7	7.8
Loomis Sayles	- 8.7	0.6
Siebel Capital	- 3.1	9.3
Herbert R. Smith	- 7.8	- 1.9
Trustee & Investors	- 7.8	6.3
Internal Manager	- 2.4	9.3
Basic Retirement Funds Common Stock Return	- 3.2	8.5
Wilshire 5000	- 0.9	16.1

BOND PERFORMANCE

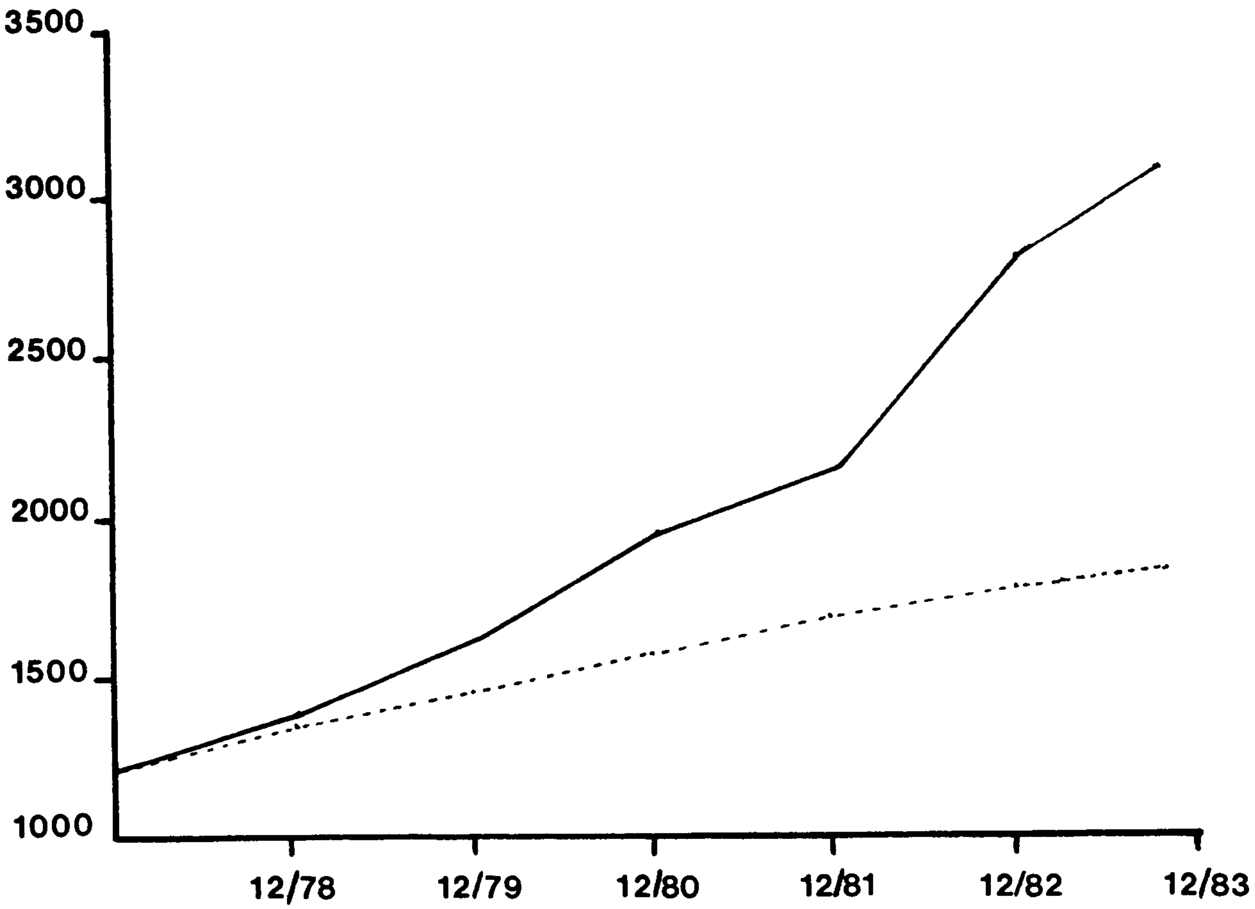
The Basic Retirement Funds bond portfolio underperformed the Merrill Lynch Master Bond Index in the third quarter. Rising interest rates caused a decline in bond prices which was essentially offset by bond income flows. The Basic Funds' bond portfolio remains concentrated in U.S. Government and utility issues. The maturity of the bond portfolio continues to decrease, but at 14.6 years it is still above the 10.3 year maturity of the Merrill Lynch Bond Index.

Total Portfolio Returns

	Third Quarter 1983	Year Ending Third Quarter 1983
Basic Retirement Funds Bond Return	0.3%	18.8%
Merrill Lynch Master Bond Index	1.3	14.9

BASIC RETIREMENT FUNDS

ASSET GROWTH



BEGINNING VALUE PLUS NET CONTRIBUTIONS ---

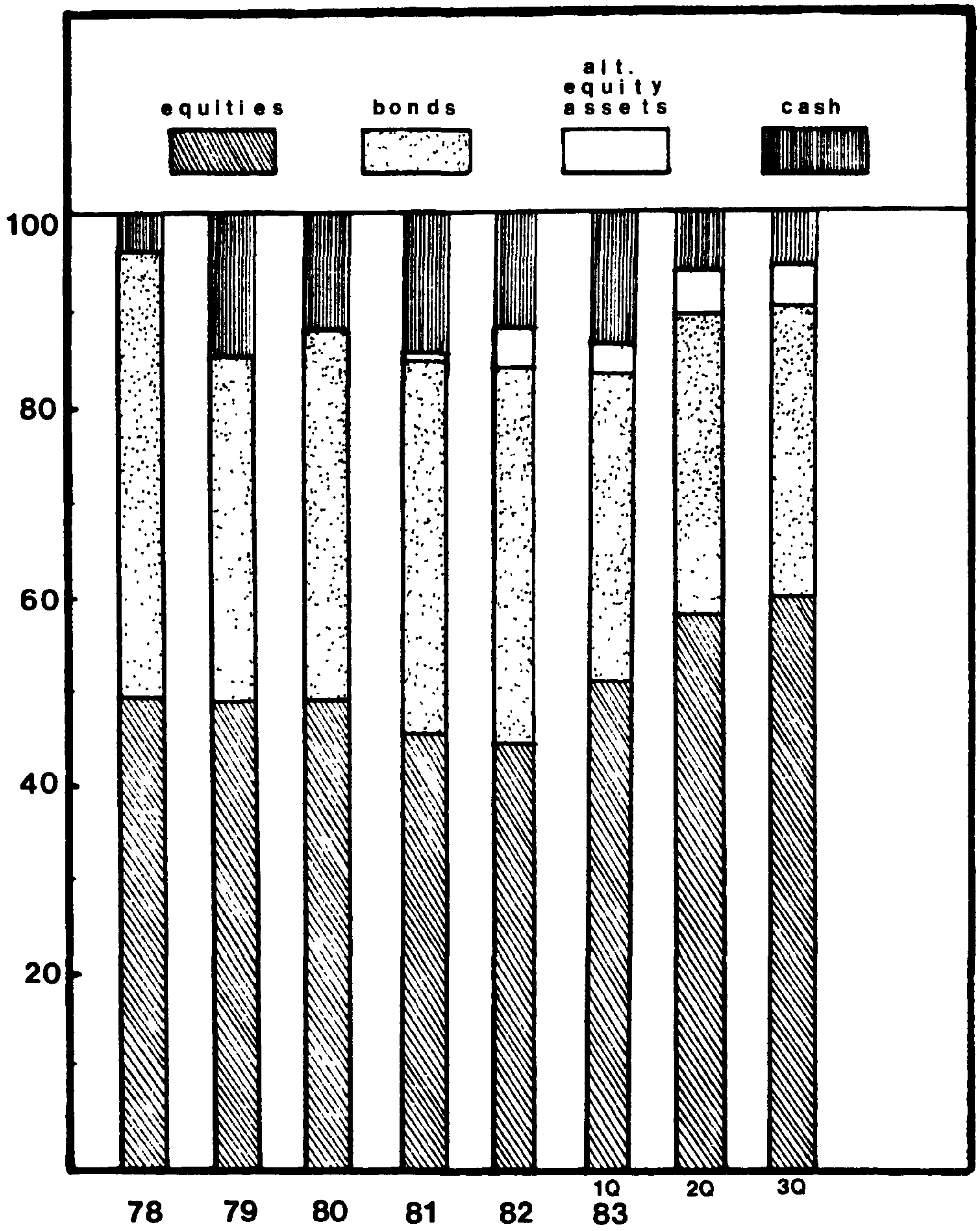
TOTAL PORTFOLIO MARKET VALUE ——

	PERIOD ENDING					
	12/78	12/79	12/80	12/81	12/82	9/30/83
BEGINNING VALUE	1227.6	1397.0	1627.1	1962.0	2148.8	2806.2
NET CONTRIBUTIONS	119.7	103.5	122.7	114.9	91.0	14.7
INVESTMENT RETURN	49.7	126.6	212.2	71.9	566.4	276.5
ENDING VALUE	1397.0	1627.1	1962.0	2148.8	2806.2	3098.0

BASIC RETIREMENT FUNDS

ASSET MIX

PERCENT OF MARKET VALUE



BASIC RETIREMENT FUNDS

ASSET MIX
MARKET VALUE

		Common Stocks		Bonds		Cash*		Real Estate		Resource Funds		Venture Capital	
		$Million	Percent	$Million	Percent	$Million	Percent	$Million	Percent	$Million	Percent	$Million	Percent
978		693	49.6	642	46.0	61	4.4	-	-	-	-	-	-
979		799	49.1	604	37.1	224	13.8	-	-	-	-	-	-
980		964	49.1	767	39.1	231	11.8	-	-	-	-	-	-
.981		959	44.6	865	40.3	297	13.8	20	0.9	8	0.3	-	-
1982		1,212	43.2	1,165	41.5	317	11.3	93	3.3	17	0.7	-	-
.983	1Q	1,526	51.8	920	31.3	385	13.1	94	3.2	19	0.6	-	-
	2Q	1,860	59.1	985	31.3	188	6.0	95	3.0	19	0.6	-	-
	3Q	1,871	60.4	934	30.2	174	5.6	99	3.2	19	0.6	-	-
	4Q												

*Includes cash held by external managers

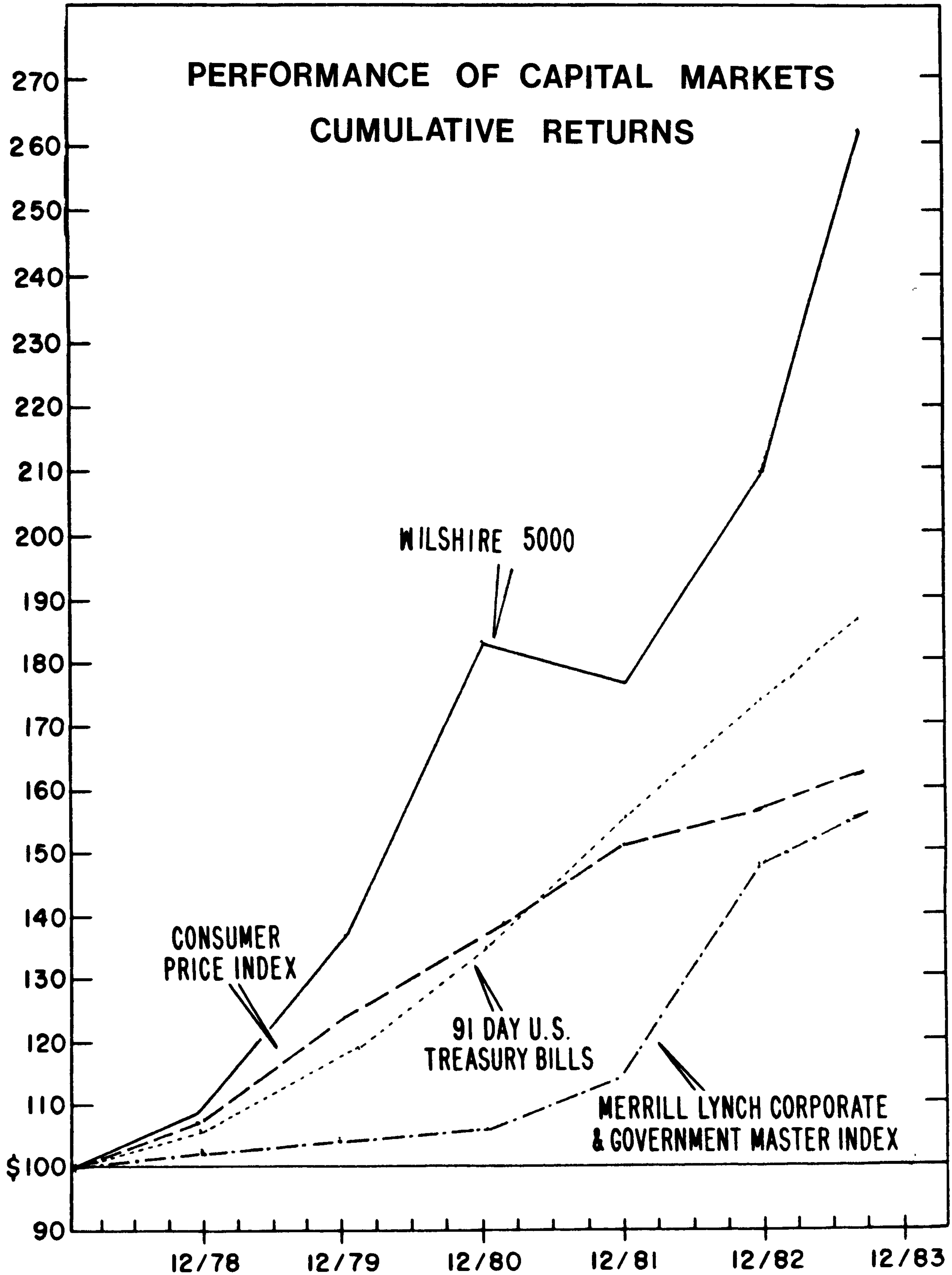
BASIC RETIREMENT FUNDS

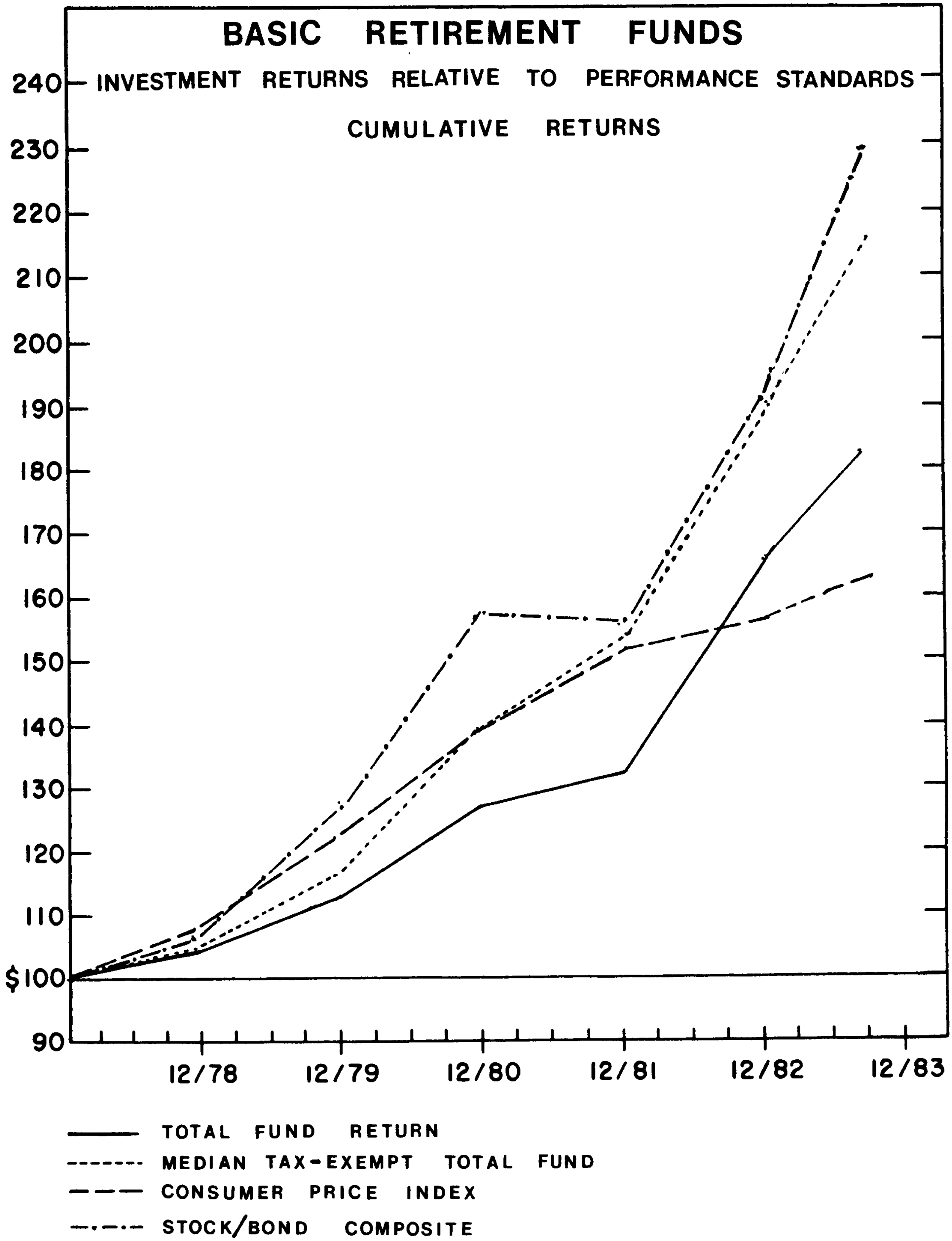
ASSET MIX — ACTUAL vs. POLICY

PERCENT OF MARKET VALUE

		Common Stocks*						Fixed Income			Real Estate			Resource Funds Venture Capital		
		Passive Management			Active Management											
		Actual	Policy	Diff.	Actual	Policy	Diff.	Actual	Policy	Diff.	Actual	Policy	Diff.	Actual	Policy	Diff
1983	1Q	0	40	-40	57.9	20	+37.9	38.3	25	+13.3	3.2	10	-6.8	0.6	5.0	-4.3
	2Q	0	40	-40	61.9	20	+41.9	34.5	25	+ 9.5	3.0	10	-7.0	0.6	5.0	-4.4
	3Q	0	40	-40	63.4	20	+43.4	32.8	25	+ 7.8	3.2	10	-6.8	0.6	5.0	-4.4
	4Q															

*Includes cash held by external managers.


PERFORMANCE OF CAPITAL MARKETS
CUMULATIVE RETURNS
270
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
110
$100
90
12/78
12/79
12/80
12/81
12/82
12/83
WILSHIRE 5000
CONSUMER PRICE INDEX
91 DAY U.S. TREASURY BILLS
MERRILL LYNCH CORPORATE & GOVERNMENT MASTER INDEX


BASIC RETIREMENT FUNDS
INVESTMENT RETURNS RELATIVE TO PERFORMANCE STANDARDS
CUMULATIVE RETURNS
240
230
220
210
200
190
180
170
160
150
140
130
120
110
$100
90
12/78
12/79
12/80
12/81
12/82
12/83
TOTAL FUND RETURN
MEDIAN TAX-EXEMPT TOTAL FUND
CONSUMER PRICE INDEX
STOCK/BOND COMPOSITE

BASIC RETIREMENT FUNDS

INVESTMENT RETURNS RELATIVE TO PERFORMANCE STANDARDS

	Total Fund Return (exc. alt. assets)	Median Tax-Exempt Fund	Stock/Bond Composite	Inflation	Total Fund Return (inc. alt. assets)
1978	3.8 %	4.9 %	6.9 %	8.9 %	3.8 %
1979	8.8	11.3	18.8	13.3	8.8
1980	12.4	19.2	24.8	12.5	12.4
1981	3.5	10.0	- 0.6	8.9	3.5
1982	26.4	24.3	22.0	3.8	25.7
1983 1Q	4.8	6.6	9.0	0.3	4.7
2Q	7.1	6.6	9.7	1.6	6.9
3Q	- 2.0	-0.2	- 0.3	1.2	- 1.8
4Q					
1 Year Through 9-30-83	23.9	28.1	37.9	2.8	23.2
3 Years Annualized Through 9-30-83	14.6	15.2	15.6	6.2	14.3
5 Years Annualized Through 9-30-83	11.3	13.0	15.6	8.6	11.1

BASIC RETIREMENT FUNDS

INVESTMENT RETURNS — DETAIL

		Total Fund Return (exc. alt. assets)	Common Stocks		Bonds		Alternative Equity Assets	Total Fund Return (inc. alt. assets)
			Basics	Wilshire 5000	Basics	ML Bond Index		
1978		3.8 %	5.9 %	9.3 %	1.1 %	1.2 %	-	3.8%
1979		8.8	17.4	25.6	- 1.7	2.3	-	8.8
1980		12.4	26.2	33.7	- 0.1	3.3	-	12.4
1981		3.5	0.0	- 3.7	2.0	7.0	-	3.5
1982		26.4	21.6	18.7	38.1	29.8	11.9	25.7
1983	1Q	4.8	6.5	11.4	4.1	3.2	0.5	4.7
	2Q	7.1	10.2	13.0	2.3	1.6	1.7	6.9
	3Q	- 2.0	- 3.2	- 0.9	0.3	1.3	2.7	- 1.8
	4Q							
1 Year Through 9-30-83		23.9	33.3	48.2	18.8	14.9	5.7	23.2
3 Years Annualized Through 9-30-83		14.6	14.1	15.9	15.0	14.5	NA	14.3
5 Years Annualized Through 9-30-83		11.3	14.2	17.6	7.7	9.0	NA	11.1

EQUITY MANAGER PERFORMANCE
9/30/83

Managers	Total Portfolio Returns: Last Quarter	Last Two Quarters	Since Inception (3-1-83)
Fred Alger	-3.2 %	9.4 %	12.5%
Alliance Capital	-7.9	3.9	6.0
Beutel Goodman	1.2	10.0	11.0
Forstmann Leff	-1.1	8.7	11.7
Hellman Jordan	-3.0	2.6	1.7
IDS	-5.5	7.4	8.8
Investment Advisers	-1.7	6.2	7.8
Loomis Sayles	-8.7	0.3	0.6
Siebel Capital	-3.1	5.9	9.3
Herbert R. Smith	-7.8	-2.3	-1.9
Trustee & Investors	-7.8	5.9	6.3
Total-External Managers	-4.6	5.1	6.6
Internal Manager	-2.4	7.3	9.3
Total-All Managers	-3.2	6.7	8.5

Performance Standards	Last Quarter	Last Two Quarters	Since Inception (3-1-83)
Wilshire 5000	-0.9	12.0	16.1
S & P 500	-0.1	11.0	15.0
TUCS Median	-5.1	9.2	NA
Inflation	1.2	2.9	2.9

EQUITY MANAGER PORTFOLIO STATISTICS GLOSSARY

# of Stocks	- number of different issues held in the manager's stock portfolio.
% of Equity	- percent of the manager's total portfolio invested in stocks and convertible securities.
Yield	- indicated annual dividend of the manager's stock portfolio divided by the market value of the manager's stock portfolio.
P/E	- weighted average price per share of the manager's stock portfolio divided by the weighted average trailing four quarter earnings per share of the manager's stock portfolio.
Market Volatility	- degree to which the returns on the manager's portfolio are sensitive to movements in the stock market's return. By definition the market has a market volatility measure (referred to as beta) of 1.0. Portfolios with values greater (less) than 1.0 have above (below) average sensitivity to market moves. The SBI's managers are required, over the long-term to hold portfolios with market volatility levels above 1.10.
Diversification	- extent to which a manager's equity holdings statistically resemble the stock 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. The less a portfolio is diversified, the lower will be its diversification measure (referred to as R-squared). The SBI's managers are required, over the long-term, to hold portfolios with diversification levels less than .85.
Portfolio Risk Orientation	- the riskiness of a portfolio can be expressed in terms of its market volatility and diversification. A complementary approach also is to break down a portfolio's risk into sensitivity to various fundamental factors. These factors, six of which are used in this analysis, are related to various balance sheet, income statement and securities data on the stocks which make up a manager's portfolio. The sensitivity of a manager's portfolio to these factors is rated relative to the the stock market's sensitivity. Thus, the term ++ (--) indicates that a portfolio has a relatively very high (low) exposure to the factor. A + (-) indicates an above (below) average exposure. A 0

Price Variability - risk related to the variability of the prices of stocks in the portfolio. The more variable are the portfolio's securities' prices, the more risky is the portfolio. Items such as current stock price, twelve month price range, trading volume and beta make up this measure.

Earnings Variability - risk related to the variability of the earnings of those companies owned in the manager's portfolio. The more variable are the companies' earnings, the more risky is the portfolio. Items such as variance of accounting earnings, variance of cash flow, occurrence of extraordinary accounting items, and the correlation of companies' earnings with U.S. corporate earnings make up this measure.

Firm Success - risk related to the extent to which the earnings of companies owned by the portfolio have been recently low or negative. The poorer have been companies' earnings, the riskier is the portfolio. Items including return on equity, earnings growth, book/price ratio, dividend cuts, and tax rate make up this measure.

Size - risk related to the size and maturity of the companies held in the portfolio. The smaller and younger are the companies, the more risky is the portfolio. Items such as total assets, market capitalization, gross plant/book value ratio, and company age make up this measure.

Growth - risk related to the growth orientation of companies owned by the manager. The more growth-oriented are the companies, the riskier is the portfolio. Items such as dividend yield, E/P ratio, and growth in total assets make up this measure.

Financial Leverage - risk related to the extent to which companies held in the portfolio have used debt to finance their operations. The more leveraged are the companies, the riskier is the portfolio. Items such as debt/asset ratio, current asset/current liability ratio, and uncovered fixed charges make up this ratio.

Industry Sector Overweightings - those sectors of the economy in which the manager has invested a significantly larger percentage of the portfolio than is represented by the stock market.

Industry Sector Underweightings - those sectors of the economy in which the manager has invested a significantly smaller percentage of the portfolio than is represented by the stock market.

TUCS Median - the median fund within a subsample of the TUCS universe restricted to aggressive equity managers. The TUCS universe is a universe of over 4000 portfolios custodied by over 30 major banks. For purposes of the SBI's analysis out of the universe have been selected a subsample which includes only those equity managers with risk characteristics (market volatility and diversification) similar to those of the SBI's managers. This provides a group of funds against which valid

BASIC RETIREMENT FUNDS

COMPOSITE EQUITY MANAGER DATA

SECTOR WEIGHTINGS

SECTORS	WEIGHTING EXTERNAL MANAGER COMPOSITE	WEIGHTING INTERNAL MANAGER	WEIGHTING ALL BASIC MANAGERS COMPOSITE	WEIGHTING WILSHIRE 5000
Capital Goods	3.4%	7.1%	6.1%	5.2%
Consumer Durables	5.8	8.4	7.7	4.0
Consumer Nondurables	28.7	20.9	22.9	24.4
Energy	3.2	16.8	13.3	14.8
Financial	13.2	8.2	9.5	9.4
Materials & Services	13.5	10.0	10.9	11.8
Technology	24.0	16.4	18.3	16.3
Transportation	5.7	0.0	1.5	2.9
Utilities	2.4	12.3	9.7	11.3
	------	------	------	------
	100.0%	100.0%	100.0%	100.0%

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION: Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Composite External Managers	239	84%	2.6%		1.26	.92	++	+	-	+	+	0
Internal Manager	60	100%	4.1%		1.02	.96	-	-	0	--	-	0
Composite All Basic Managers	262	95%	3.7%		1.08	.96	0	0	0	--	-	0

STAFF COMMENTS:

The equity market, as measured by the Wilshire 5000, was down slightly in the third quarter, -0.9% on a total return basis. This was the first negative quarterly return on the index since the stock market rally began in August, 1982. Despite the market's moderate decline, the third quarter was an extraordinarily difficult period for most aggressive equity managers, and the SBI's manager pool proved to be no exception. The market's strength shifted from the secondary stocks, a large proportion of which are small capitalization, high volatility, high price-to-book, growth oriented issues, to the larger capitalization, defensive, low growth, low price-to-book stocks. Thus, while the Dow Jones Industrials Average (representing the latter group) was up 0.9% during the quarter, the NASDAQ index (representing the former group) was down 6.9%. Since aggressive equity managers tend to focus their investments in the secondary issues described above, their portfolios suffered accordingly. The median aggressive equity manager, as measured by a subsample of the TUCS universe, produced a third quarter return of -5.1%. This figure compares to the aggregate performance of the SBI's manager pool, -4.4%.

Over the last two quarters the aggregate performance of the SBI manager pool, at 5.7%, has been significantly below that of both the TUCS subsample median and the Wilshire 5000, which returned 9.2% and 12.0%, respectively. It is difficult to envision an investment environment which could be less conducive to acceptable performance on the part of the SBI's external managers. When they received their allocations on March 1, the market was advancing rapidly. Since they received cash, many managers lost ground to the market by not becoming immediately fully invested. But late in the second quarter, when many of the managers had finally reached their desired portfolio positions, the secondary stocks began their precipitous decline, further negatively impacting the managers' performance relative to the market.

At the end of the third quarter, the Basic Retirement Funds' external managers in aggregate continued to hold overweighted positions in the Technology, Transportation, and Financial sectors. The Energy and Utilities sectors, on the other hand, were underweighted relative to the market.

In terms of the managers' risk characteristics, with only four exceptions, the managers have satisfied the relative market volatility and diversification risk guidelines established by the Board. As intended, the Basic Retirement Funds' total equity portfolio, composed of the external managers and the internally managed equity portfolio, is a well-diversified portfolio with a slightly above average level of relative market volatility. When the internal portfolio is finally converted to an index fund, the total equity portfolio's diversification will be further enhanced.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Fred Alger Management

PORTFOLIO MANAGER(S): Portfolio decisions are made by the firm's analysts.

ACCOUNT HISTORY: Start-up 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Fred Alger utilizes a microeconomic investment approach, emphasizing individual stock selection rather than industry selection and/or market timing. The firm focuses primarily on two types of companies: Those currently undergoing a positive life cycle change, and those creative companies whose products have high unit volume growth rates. Fred Alger expects these two types of companies to be characterized by substantially above-consensus earnings gains and thus, strong stock price performance. The firm's decision-making structure is relatively unique in that portfolio selections are made by the firm's highly motivated group of analysts. Except on rare occasions, the firm maintains a fully invested posture.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Fred Alger Mgmt	32	91%	2.6%	17.5	1.25	.88	++	+	--	0	0	0
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Materials & Services, Technology

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Transportation, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Fred Alger Mgmt	-3.2%	9.4%	12.5%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: Fred Alger's third quarter results lagged behind those of the equity market, but outperformed samples of other aggressive equity managers (as represented by the SBI manager pool and a subsample of the TUCS universe). Poor performance relative to the market centered in the Technology, Materials & Services, Consumer Nondurables, and Financial sectors. Over the last two quarters, Fred Alger has ranked as one of the SBI's top performing managers and compared favorably with the TUCS subsample median. During that period the firm consistently followed its well-defined investment style and generally has satisfied the SBI's risk objectives.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Alliance Capital Management (Minneapolis)

PORTFOLIO MANAGER(S): Alfred Harrison
John Koltes

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: The Alliance Capital office system employs a macroeconomic investment approach. Investment strategy is developed on two levels. Macroeconomic considerations are analyzed on a centralized basis at the New York headquarters. Committees, composed of members from the regional and New York offices, develop economic forecasts, set asset allocation and industry weightings, and formulate an eligible list of attractive securities. Specific stock selection is conducted at the regional office level. The Minneapolis office tends to focus on companies with favorable ratios of P/E to forecasted earnings growth.

CURRENT PORTFOLIO STATISTICS

							PORTFOLIO RISK ORIENTATION					
	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Alliance Capital (Mpls)	27	87%	1.6%	20.4	1.41	.82	++	+	--	+	++	-
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Consumer Nondurables, Technology, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Energy, Materials & Services, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Alliance Capital (Mpls)	-7.9%	3.9%	6.0%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: In the third quarter, Alliance Capital (Mpls.) significantly underperformed both the equity market and samples of other aggressive equity managers. Three of the firm's poorest performing equity sectors were those sectors in which the Alliance portfolio was overweighted: Technology, Transportation, and Consumer Nondurables. The Financial sector, which was market-weighted, also contributed to Alliance's negative results. Alliance's very poor third quarter results brought its cumulative return over the last two quarters to below that of the aggregate SBI manager pool and well below that of the TUCS subsample median. With reference to risk parameters, the firm has consistently met the SBI's assigned targets over this same period.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Beutel Goodman Capital Management

PORTFOLIO MANAGER(S): Robert McFarland

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Beutel Goodman utilizes a modified, microeconomic investment style. The firm concentrates on stock selection but is sensitive to the impact of macroeconomic factors on the attractiveness of specific industries and companies. Stocks purchased by Beutel Goodman tend to be either companies whose stock prices are too low in comparison to their tangible book value (as estimated by Beutel Goodman analysts) or companies whose stocks possess low relative P/E's given their investment characteristics and forecasted earnings growth. The firm generally remains fully invested, with cash positions usually resulting from an immediate lack of attractive investment opportunities.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Beutel Goodman	16	99%	3.5%	10.5	1.07	.76	+	-	-	++	0	+
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Capital Goods, Financial, Materials & Services, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Consumer Durables, Energy, Technology, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Beutel Goodman	1.2%	10.0%	11.0%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: Beutel Goodman produced highly impressive third quarter results, given the weak equity market. The firm not only outperformed samples of other aggressive equity managers, but outperformed the equity market as well, in a period when few aggressive managers were able to accomplish that feat. Beutel's investment style, to which the firm has closely adhered since the inception of the SBI's portfolio, is particularly well-suited for neutral or negative equity markets. The strong relative returns on Beutel's holdings in the overweighted Capital Goods sector, and the firm's sizable underweighting of the Technology sector, were the primary contributors to the superior relative portfolio performance. Due largely to its third quarter results, Beutel's two quarter performance ranks above that of both the SBI manager pool and the median of the TUCS subsample. Over this period the firm has consistently achieved the aggressive risk objectives established by the SBI.

EXTERNAL MANAGER INFORMATION
September 30, 1983

FIRM NAME: Forstmann Leff

PORTFOLIO MANAGERS(S): Steve Reynolds
Richard Walton

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Forstmann Leff uses a macroeconomic investment approach, focusing on industry selection and market timing. The firm attempts to identify social and economic factors impacting the marketplace on a cyclical and secular basis. From this analysis the firm focuses on those sectors that will be positively and negatively affected by these forces. Stock selection is of secondary importance to the firm. Holdings tend to be concentrated in larger capitalization institutional favorites. Forstmann Leff is an active market timer willing to make sizable asset mix shifts at any point in the market cycle.

CURRENT PORTFOLIO STATISTICS

							PORTFOLIO RISK ORIENTATION					
	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Forstmann Leff	28	83%	2.6%	20.7	1.16	.85	+	0	0	-	0	-
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Consumer Nondurables, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Energy, Financial, Materials & Services, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Forstmann Leff	-1.1%	8.7%	11.7%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: Forstmann Leff roughly matched the market's return in the third quarter and compared favorably with samples of other aggressive equity managers (i.e., the SBI manager pool and the TUCS subsample). The firm's holdings in its most heavily overweighted sector, Consumer Nondurables, performed in line with the market. The relative performance of Forstmann Leff's other sector over- and underweightings tended to cancel each other out during the quarter. Market timing added value to the firm's performance as cash reserves were increased moderately over the quarter. Due largely to its third quarter returns, Forstmann Leff's performance moved ahead of the SBI manager aggregate, but continued to trail the TUCS subsample median slightly. The firm has generally satisfied the SBI's risk objectives over the last two quarters.

EXTERNAL MANAGER INFORMATION
September 30, 1983

FIRM NAME: Hellman Jordan Management

PORTFOLIO MANAGER(S): Gerald Jordan
Edward Heubner

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Hellman Jordan employs a modified, macroeconomic investment approach, focusing on long-term proprietary, high growth companies that it believes will be positively impacted by the firm's forecasted economic scenarios. The firm attempts to identify long-term trends in the economy and develop investment concepts related to these trends. Stock selection is considered to be of secondary importance to successful asset mix and sector rotation decisions. Holdings tend to be concentrated in large capitalization, high P/E, high growth, low yield issues. While not an active market timer, the firm does make significant asset mix moves gradually over the course of the market cycle.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Hellman Jordan	20	47%	2.9%	21.2	1.23	.81	+	+	0	-	0	+
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Consumer Nondurables, Financial, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Energy, Materials & Services, Technology, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Hellman Jordan	-3.0%	2.6%	1.7%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: Despite a high cash reserve (53% invested in bonds and short-term investments as of 9/30/83) during the third quarter, Hellman Jordan's total portfolio results still lagged the market, although it outperformed the aggregate SBI manager pool and the TUCS subsample median. Equity portfolio returns significantly underperformed the market as the firm's holdings in its most overweighted sectors, Consumer Nondurables and Financial, produced poor relative results. Over the last two quarters, Hellman Jordan's returns have fallen far below those of other aggressive equity managers. The primary reasons have been poor stock selection over the entire period and the firm's high cash position during the strong equity market of this year's second quarter. Since portfolio inception, the firm has adhered to a defensive view of the market and its strategy has consistently reflected that viewpoint. Hellman Jordan's equity

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: IDS Advisory

PORTFOLIO MANAGER(S): Peter Anderson

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: IDS employs a macroeconomic investment approach, focusing on industry selection and limited market timing. The firm attempts to identify industries that will be positively and negatively impacted by forecasted broad economic trends. The firm actively rotates among these affected industries. IDS refers to its asset management approach as the Dual Investment Objectives, which are composed of an annual income and total return targets. IDS believes that this approach provides a built-in purchase and sale discipline that reduces portfolio volatility and enhances total returns. The Dual Objectives force a more defensive posture as market prices rise (and yields fall) and allows for a more aggressive stance as prices fall (and yields rise). The firm tends to make moderate asset allocation moves gradually over a market cycle.

CURRENT PORTFOLIO STATISTICS

							PORTFOLIO RISK ORIENTATION					
	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
IDS Advisory	34	86%	2.4%	25.0	1.26	.89	++	+	-	+	+	-
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Materials & Services, Technology, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Energy, Financial, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
IDS Advisory	-5.5%	7.4%	8.8%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: IDS underperformed both the market and samples of other aggressive equity managers in the third quarter. Poor performance relative to the market was due largely to the negative returns on the firm's holdings in the Consumer Nondurables, Technology, and Transportation sectors. IDS's decision to moderately reduce its equity exposure during the quarter helped to offset the negative impact of stock selection. Despite poor third quarter results, cumulatively over the last two quarters IDS continued to perform above the aggregate SBI manager pool, although its performance trails that of the TUCS subsample median. During this period IDS has generally failed to satisfy the SBI's risk objectives by maintaining equity portfolio diversification in excess of specified maximum levels. During the third quarter, the firm switched to relying solely on its analysts recommendations for individual stock

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Investment Advisers

PORTFOLIO MANAGER(S): Kenneth Thorsen

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Investment Advisers utilizes a macroeconomic investment style, with a relatively equal emphasis placed on asset allocation, industry weighting, and stock selection. Through a committee structure, the firm attempts to identify the economy's position within the real economic and credit cycles. Based upon this analysis, Investment Advisers rotates its portfolios among industries and investment characteristics. Stock selection focuses on the recommendations of fundamental valuation and earnings momentum models. Holdings tend to be concentrated in large capitalization institutional favorites. The firm actively conducts market timing to take advantage of cyclical moves in the market.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Investment Advisers	41	89%	2.9%	15.6	1.12	.91	0	0	-	-	+	0
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Consumer Nondurables, Financial, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Investment Advisers	-1.7%	6.2%	7.8%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: Investment Advisers' third quarter returns trailed slightly those of the equity market, but substantially exceeded those of other aggressive equity managers. The firm benefited from an overweighting in the Consumer Durables sector, but was hurt by its stock selection in the Financial and Transportation sectors. Over the last two quarters, Investment Advisers has performed roughly in line with the aggregate SBI manager pool, but has lagged the TUCS subsample median. During this period the firm has failed to meet the SBI's risk objectives. The firm's level of portfolio diversification has consistently exceeded the maximum limits set by the SBI.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Loomis Sayles & Co.

PORTFOLIO MANAGER(S): Kenneth Heebner
Dennis Comer
Henry Cook

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: The Loomis organization employs a macroeconomic investment approach which focuses on asset allocation and industry weightings. Based upon its economic analysis, the firm identifies those industries and companies which are expected to experience significant cyclical or secular earnings gains. Loomis tends to own companies with high historical earnings growth, high ROE, and medium capitalization. The firm's aggressive funds' portfolio selections follow those of the parent organization, but the aggressive funds will take much more concentrated positions in industries and companies. The firm is not an active market timer, but it will make moderate asset mix moves gradually over the market cycle.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Loomis Sayles	23	95%	1.3%	28.8	1.53	.80	++	++	-	+	++	0
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Technology, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Consumer Nondurables, Energy, Materials & Services, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Loomis Sayles	-8.7%	0.3%	0.6%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: A virtually fully invested portfolio combined with poor stock selection, particularly in two overweighted sectors, Consumer Durables and Transportation, resulted in very poor third quarter investment performance for Loomis Sayles. Surprisingly, in its most overweighted sector, Technology, the firm's holdings outperformed the market, an achievement few other aggressive equity managers were able to attain. Nevertheless, Loomis' performance over the last two quarters has been far below that of the aggregate SBI manager pool and the TUCS subsample median. The firm's growth orientation (both cyclical and secular) and high P/E bias has been unsuccessful, up to this point, in both strong and weak equity markets. From a risk perspective, Loomis has fully satisfied the SBI's objectives during the last two quarters.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Siebel Capital Management

PORTFOLIO MANAGER(S): Kenneth Siebel
Ronald Sloan
Walter Harrison

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Siebel employs a modified, microeconomic investment style, concentrating on stock selection, but also considering the effect of macroeconomic factors on the prospects for specific industries and companies. The firm tends to purchase stocks of two principle types of companies: First, seasoned growth companies devising new products or creating new markets for old products which will significantly raise earnings growth. Second, low P/E companies undergoing a potentially profitable redeployment of assets. Siebel is a moderate market timer, willing to alter asset mix at any point in the market cycle.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Siebel Capital	35	83%	3.3%	12.6	1.19	.90	+	0	-	0	0	+
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Nondurables, Financial, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Consumer Durables, Energy, Materials & Services, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Siebel Capital	-3.1%	5.9%	9.3%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: Siebel Capital underperformed the market in the third quarter primarily due to the firm's concentrations in the Consumer Nondurables and Financial sectors. The firm's portfolio returns did exceed those of samples of other aggressive equity managers. Over the past two quarters Siebel's performance has approximately matched that of the aggregate SBI manager pool, but underperformed the TUCS subsample median. At the same time, the firm failed to satisfy the SBI's risk objectives by maintaining equity potfolio diversification in excess of specified maximum levels.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Herbert R. Smith

PORTFOLIO MANAGER(S): Herbert Smith
David Bagbee

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Herbert R. Smith utilizes a modified, macroeconomic investment approach. The firm uses its economic and political outlook and its technical analysis of the marketplace to establish the asset mix for its portfolios. The firm is an aggressive market timer, willing to make sizable asset allocation moves at any point in the market cycle. Although asset allocation receives the firm's primary attention, the firm also emphasizes stock selection. Its stock selection is predicated upon both fundamental and technical analysis of individual securities. Herbert Smith searches for stocks with attractive relative P/E's and positive technical patterns.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION: Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Herbert R. Smith	46	65%	2.7%	19.4	1.42	.84	++	+	--	++	+	+
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Financial, Technology, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Consumer Durables, Consumer Nondurables, Energy, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Herbert R. Smith	-7.8%	- 2.3%	- 1.9%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: In the third quarter, Herbert R. Smith significantly underperformed both the equity market and samples of other aggressive equity managers, despite the firm's sizable cash reserves. The small capitalization bias of the Smith portfolio, combined with overweightings in the poorly performing sectors of Technology, Transportation, and Financial, particularly were detrimental to performance. Over the last two quarters, the firm has been plagued by poor stock selection and incorrect market timing decisions. Over this period, Smith has produced returns far below those of the market and other aggressive equity managers. Despite this poor performance, the firm has consistently adhered to its stated investment approach and has fully met the aggressive risk objectives established by the SBI.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Trustee & Investors

PORTFOLIO MANAGER(S): Mason Klinck
Richard Welch
David Cook

ACCOUNT HISTORY: Start-up: 3/1/83 $50.0 million

INVESTMENT PHILOSOPHY: Trustee & Investors employs a highly disciplined, microeconomic investment approach, emphasizing stock selection rather than industry selection and/or market timing. The firm analyzes potential purchase and sale candidates through the use of computerized data bases which screen such fundamental valuation parameters as price, earnings, and balance sheet and income statement data. Trustee & Investors searches for companies with unrecognized assets or earnings, or companies undergoing cyclical or operational turnarounds. The firm maintains a fully invested position at all times.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Trustee & Investors	40	98%	3.0%	19.8	1.25	.89	++	+	-	+	+	0
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Financial, Technology

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Consumer Durables, Consumer Nondurables, Energy, Transportation, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Trustee & Investors	-7.8%	5.9%	6.3%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

STAFF COMMENTS: A fully invested position and the negative performance of its heavily overweighted positions in the Technology and Financial sectors caused Trustee & Investors to significantly underperform both the market and other aggressive equity managers in the third quarter. Trustee's poor third quarter results brought its two quarter performance down to roughly in line with the aggregate SBI manager pool, but below that of the TUCS subsample median. Over this period, Trustee failed to meet the SBI's aggressive risk objectives by maintaining equity portfolio diversification levels in excess of maximum limits.

Tab B

EQUITY MANAGER PERFORMANCE

9/30/83

	Total Portfolio Returns		
	Last Quarter	Last Two Quarters	Since Inception
Income Share Account			
BMI Capital	- 7.4%	3.7%	4.5%
Internal Manager	- 1.8	8.2	0.8
Growth Share Account			
Waddell & Reed	- 2.8	20.6	20.8
Internal Manager	- 3.0	7.4	10.0
Variable Annuity Fund			
Norwest Bank	- 2.3	13.8	18.6
Lieber & Company	- 1.9	9.5	10.2
Internal Manager	- 3.0	8.4	11.4
Performance Standards			
Wilshire 5000	- 0.9	12.0	16.1
S&P 500	- 0.1	11.0	15.0
TUCS Median	- 8.1	9.2	NA
Inflation	1.2	2.9	2.9

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Waddell & Reed Asset Management

PORTFOLIO MANAGER(S): Henry Herrmann

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million

INVESTMENT PHILOSOPHY: Waddell & Reed, in its aggressively managed funds, employs a microeconomic investment approach. While asset mix decisions are made for all Waddell & Reed funds at a committee level, the aggressive funds focus on stock selection almost entirely. Holdings are concentrated in small capitalization stocks with an orientation toward cyclical companies and immature growth companies, particularly technology companies. The Waddell & Reed organization is an active market timer willing to make significant asset mix shifts at any point in the market cycle.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Waddell & Reed	17	73%	1.4%	27.4	1.50	.73	++	0	--	++	++	0
SBI MGRS (Avg.)	32	85	2.5	19.5	1.29	.84	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Technology, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Financial, Materials & Services, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Waddell & Reed	-2.8%	20.6%	20.8%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

Staff Comments: During the difficult third quarter, Waddell and Reed outperformed other aggressive equity managers, but underperformed the equity market. The negative impact on portfolio returns of the firm's overweighted position in the Technology sector was partially offset by an overweighting of the Transportation sector and an underweighting of the Financial sector. An increase in cash reserves over the quarter contributed positively to the firm's relative performance. Cumulatively over the last two quarters, Waddell and Reed's highly focused investement approach has been extremely successful. Over that period, the firm has ranked as the SBI's top performing equity manager, outperforming not only the TUCS subsample median, but also the equity market. Waddell and Reed has fully satisfied the SBI's risk guidelines during this period.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: BMI Capital

PORTFOLIO MANAGER(S): James Awad
Jerome Barone

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million

INVESTMENT PHILOSOPHY: BMI employs a microeconomic investment approach, emphasizing individual stock selection rather than industry selection and/or market timing. The firm focuses on two types of companies: First, misperceived companies that are in the process of undergoing dynamic change that will cause them to produce materially higher earnings over the near-term, but whose prospects are as yet unrecognized by the market; Second, small-to-medium sized companies that exhibit the potential for rapid future earnings growth. This second type of company dominates the BMI portfolios. The firm tends to take sizable positions in a relatively few stocks. BMI generally maintains a fully invested posture, with any cash positions a result of a lack of attractive investment opportunities.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
BMI Capital	19	99%	2.1%	19.2	1.34	.80	++	0	--	++	+	-
SBI MGRS (Avg.)	31	85	2.5	19.5	1.29	.85	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Capital Goods, Consumer Durables, Consumer Nondurables, Materials & Services

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Financial, Transportation, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
BMI Capital	-7.4%	3.7%	4.5%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

Staff Comments: In the third quarter, BMI significantly underperformed both the equity market and samples of other aggressive equity managers. BMI's underperformance relative to the market resulted primarily from the firm's fully invested position and its poor stock selection within the Materials & Services and Financial sectors. BMI's overweighting of the Capital Goods and Consumer Nondurables sectors also contributed to poor third quarter results. Over the past two quarters, BMI has consistently lagged both the SBI manager pool and the median of the TUCS subsample. During this period BMI has met the risk objectives established by the SBI.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Norwest Bank, Minneapolis

PORTFOLIO MANAGER(S): Ronald Hoffman

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million

INVESTMENT PHILOSOPHY: Norwest utilizes a modified, microeconomic investment style. The bank emphasizes stock selection in its aggressively managed funds, although asset mix is set for all bank funds by a strategy committee. The aggressive funds tend to focus on industries and companies experiencing a growing share of GNP, developing new, high growth products, and which are positively influenced by cyclical economic change. This approach leads to a concentration in small capitalization, emerging growth, and technology companies. The bank is a moderate market timer, willing to shift asset mix at any point in the market cycle.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION: Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Norwest Bank	53	85%	2.1%	21.4	1.27	.85	++	0	--	+	+	-
SBI MGRS (Avg.)	31	85	2.5	19.5	1.29	.85	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Nondurables, Financial, Technology

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Consumer Durables, Energy, Transportation, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Norwest Bank	-2.3%	13.8%	18.5%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

Staff Comments: Given Norwest's orientation toward investing in small capitalization, high-growth technology companies, the bank's third quarter performance was quite impressive. Norwest outperformed both the SBI manager pool and the TUCS subsample median, and underperformed slightly the equity market. Although Norwest was significantly overweighted in the Technology sector, negative returns there were partially offset by positions in the Energy, Transportation, and Utilities sectors. The bank's underweighting of the Financial sector also contributed positively to its relative performance. Cumulatively over the past two quarters, Norwest has outperformed not only the the aggregate SBI manager pool and the TUCS subsample median, but the equity market as well. Over this period, Norwest's portfolio has fully satisfied the SBI's risk guidelines.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1983

FIRM NAME: Lieber & Co.

PORTFOLIO MANAGER(S): Nola Falcone
Stephen Lieber

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million

INVESTMENT PHILOSOPHY: Lieber & Co. seeks to identify investment concepts that are either currently profitable or likely to become so in the near future, yet whose prospects are not reflected in the stock prices of the companies associated with the concepts. The investment concepts upon which the firm focuses are related to both macroeconomic trends and specific product developments within particular industries or companies. Stocks purchased by Lieber tend to be those of well-managed, high growth and high ROE, small-to-medium sized companies. The stocks may be undervalued due to the failure of investors to fully recognize either the value of new products or a successful turnaround situation. Particularly attractive to Lieber are small-to-medium sized takeover candidates. The firm generally is fully invested, with any cash positions the result of a lack of attractive investment concepts.

CURRENT PORTFOLIO STATISTICS

	# OF STOCKS	% EQUITY	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION: Price Var.	Earn. Var.	Firm Success	Size	Growth	Fin. Lever.
Lieber & Co.	56	97%	2.8%	11.3	1.28	.83	++	0	--	++	+	-
SBI MGRS (Avg.)	31	85	2.5	19.5	1.29	.85	++	+	-	+	+	0
TUCS MEDIAN	NA	92	NA	NA	1.26	.79	++	+	-	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Nondurables, Financial, Materials & Services, Transportation

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Technology, Utilities

PERFORMANCE

	LATEST QUARTER	LAST TWO QUARTERS	SINCE INCEPTION
Lieber & Co.	-1.9%	9.6%	10.2%
SBI MGR AGGREGATE	-4.4	5.7	7.2
TUCS MEDIAN	-5.1	9.2	NA
WILSHIRE 5000	-0.9	12.0	16.1
CPI (Inflation)	1.2	2.9	2.9

Staff Comments: Although Lieber's returns lagged the equity market slightly, the firm outperformed other aggressive equity managers during the third quarter. Poor stock selection in the overweighted Transportation and Materials and Services sectors and a reduction in cash reserves were detrimental to the firm's third quarter results. On the other hand, positive stock selection in the Consumer Nondurables and Financial sectors and an underweighted position in the Technology sector aided Lieber's relative performance. Over the last two quarters, Lieber has outperformed the aggregate SBI manager pool and the TUCS subsample median, but has underperformed slightly the equity market. The aggressive risk objectives established by the SBI have been satisfied by Lieber.

Tab C

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

PERFORMANCE REVIEW FOR
CALENDAR YEAR ENDING September 30, 1983

PERFORMANCE GOALS YEAR ENDING September 30, 1983			FUND PERFORMANCE FOR YEAR ENDING September 30, 1983				
			POST	INCOME*	GROWTH*	VARIABLE*	PERM. SCHOOL
STOCKS	- Wilshire 5000 - S & P 500	48.2% 44.3	34.7%	32.0%	40.0%	37.8%	35.7%
BONDS	- Merrill Lynch Index:	14.9	16.4	17.6	-	19.7	16.3
TOTAL FUNDS							
POST	- 40% stock/60% bond:	28.2	21.4				
INCOME	- 50% stock/50% bond:	31.6		22.7			
GROWTH	-100% stock/0% bond:	48.2			30.6		
VARIABLE	-100% stock/0% bond:	48.2				29.3	
P. SCHOOL	- 20% stock/80% bond:	21.6					19.3
INCOME							
Actuarial requirement		5.0	9.0	8.3			8.3
Post benefit increase at least 50% of inflation rate: (Effective January 1984)		2.8	7.5				

*Includes performance of both internal and external managers.

Tab D

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

INVESTMENT ADVISORY COUNCIL

INFORMATION FOR MEETING OF January 10, 1983

PAGE

TRANSACTION AND ASSET SUMMARY
RETIREMENT FUNDS

	Net Transactions				Asset Summary (at market)			
	Bonds (000,000)	Stocks (000,000)	Total	Cash Flow	Short-term % of Fund	Bonds % of Fund	Equity % of Fund	Total (000,000) (at market)
November 1981	5	(2)	3	40	13.3	44.3	42.4	3537
December	(1)	18	17	56	14.7	42.5	42.8	3456
January 1982	47	65	112	42	12.7	43.2	44.1	3462
February	64	50	114	30	10.3	46.1	43.6	3433
March	25	38	63	47	9.7	46.3	44.0	3482
April	(47)	30	(17)	39	11.0	44.4	44.6	3609
May	(49)	48	1	28	11.8	43.7	44.5	3577
June	13	73	86	93	12.0	42.6	45.4	3576
July	(15)	(5)	(20)	59	13.9	42.8	43.3	3665
August	(14)	(86)	(100)	37	16.3	41.2	42.5	3951
September	58	(10)	48	64	16.2	42.7	41.1	4088
October	124	(17)	107	48	13.6	44.9	41.5	4413
November	137	9	146	41	11.0	47.0	42.0	4537
December	(2)	6	4	45	11.7	46.6	41.7	4605
January 1983	(20)	2	(18)	41	12.8	45.0	42.2	4667
February	(76)	(502)	(578)	26	25.2	43.6	31.2	4770
March	(270)	1098	828	47	8.7	37.2	54.1	4841
April	(6)	(7)	(13)	40	9.3	36.3	54.4	5086
May	52	59	111	34	7.9	36.8	55.3	4996
June	(15)	31	16	83	9.0	34.9	56.1	5177
July	47	154	201	47	6.1	35.2	58.7	5053
August	19	7	26	39	6.3	35.4	58.3	5072
September	22	(103)	(81)	29	8.3	35.9	55.8	5202
October	2	93	95	51	7.5	35.8	56.7	5158
November	18	(20)	(2)	40	6.3	37.4	56.3	5275

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

Total Transactions

For Periods of

October 1, 1983 - November 30, 1983

	Purchases	Sales
SHORT TERM	$12,355,803,739.22	$ 103,410,980.78
BONDS	$ 39,391,892.00	$ -0-
EQUITY	$ 1,807,320,506.98	$1,730,126.276.72

STATE OF MINNESOTA - STATE BOARD OF INVESTMENT - INVESTMENT ADVISORY COUNCIL

BOOK AND MARKET VALUES FOR

BASICS, POST RETIREMENT AND PERMANENT SCHOOL PORTFOLIOS - 11/30/83

BASIC RETIREMENT FUNDS	Cost	%	Market	%
Short-term	$ 172,627,927	5%	$ 172,627,927	5
Bonds & Mortgages	978,731,164	31	900.202.061	29
Equity	2,026,336,521	64	2,076,031,730	66
Total	$3,177,695,612	100%	$3,148.861,718	100%

POST-RETIREMENT FUND	Cost	%	Market	%
Short-term	$ 119,916,705	7%	$ 119,916,705	6
Bonds & Mortgages	969,138,376	56	953,870,929	54
Common Stocks	644,796,894	37	708,952,247	40
Total	$1,733,851,975	100%	$1,782,739,881	100%

PERMANENT SCHOOL FUND	Cost	%	Market	%
Short-term	$ 32,616,271	10%	$ 32,616,271	11
Bonds & Mortgages	228,809,258	73	193,116,759	68
Common Stocks	53,152,171	17	61,129,067	21
Total	$ 314,577,700	100%	$ 286,862,097	100%

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
COMPOSITION OF STATE INVESTMENT PORTFOLIO BY TYPE OF INVESTMENT
November 30, 1983

	Cash and U.S. Gov't. Short-term	Bank and Corporate Short-term	(1) U.S. Gov't. and Agency Guarantees	(1) Canadian Governmental Obligation	(1) Corporate Bonds	(2) Common Stock	Outside Money Managers	Alternative Investments	Total
Basic Retirement Funds									
Teachers Retirement Fund	$ 29,191,871 2.27%	$ 68,721,529 5.34%	$ 182,722,999 14.20%	$ 34,753,325 2.70%	$154,871,255 12.04%	$ 545,240,103 42.38%	$228,508,197 17.76%	$ 42,547,160 3.31%	$1,286,556,439 100%
Public Employees Ret. Fund	$ 13,590,688 1.36%	$ 36,035,955 3.59%	$ 131,015,220 13.06%	$ 30,761,292 3.07%	$135,446,579 13.50%	$ 431,362,359 43.00%	$183,267,119 18.27%	$ 41,582,748 4.15%	$1,003,061,960 100%
State Employees Ret. Fund	$ 15,805,455 2.52%	$ 34,777,999 5.53%	$ 81,189,792 12.92%	$ 17,740,370 2.82%	$ 83,436,399 13.28%	$ 261,730,774 41.66%	$109,872,341 17.49%	$ 23,736,154 3.78%	$ 628,289,284 100%
Public Employees Police & Fire Fund	$ 4,340,750 2.03%	$ 12,452,433 5.82%	$ 22,422,387 10.49%	$ 6,422,803 3.00%	$ 33,964,505 15.88%	$ 88,216,647 41.25%	$ 37,128,863 17.36%	$ 8,922,331 4.17%	$ 213,870,719 100%
Highway Patrol Ret. Fund	$ -0-	$ 3,223,242 6.59%	$ 4,221,690 8.64%	$ 1,480,380 3.03%	$ 9,207,199 18.83%	$ 20,476,246 41.89%	$ 8,375,419 17.13%	$ 1,900,095 3.89%	$ 48,884,271 100%
Judges Retirement Fund	$ -0-	$ 234,769 7.40%	$ 230,375 7.26%	$ 98,745 3.11%	$ 561,524 17.71%	$ 1,478,512 46.62%	$ 567,720 17.90%	$ -0-	$ 3,171,645 100%
Post Retirement Fund	$ 86,201,142 4.91%	$ 50,150,000 2.86%	$ 531,017,575 30.24%	$ 41,770,633 2.38%	$390,850,443 22.26%	$ 655,836,460 37.35%	$ -0-	$ -0-	$1,755,826,253 100%
Minnesota Supplemental Funds									
Income Share Account	$ 7,697,851 6.96%	$ 200,000 0.18%	$ 16,241,854 14.68%	$ 4,019,187 3.63%	$ 22,906,119 20.70%	$ 49,611,597 44.83%	$ 9,985,385 9.02%	$ -0-	$ 110,661,993 100%
Growth Share Account	$ 15,624,451 29.61%	$ 250,000 0.48%	$ -0-	$ -0-	$ -0-	$ 25,578,353 48.48%	$ 11,308,720 21.43%	$ -0-	$ 52,761,524 100%
Fixed Return Account	$ 11,464,009 22.01%	$ -0-	$ 21,705,214 41.67%	$ 3,272,817 6.28%	$ 15,644,797 30.04%	$ -0-	$ -0-	$ -0-	$ 52,086,837 100%
Bond Fund	$ 94,123 3.79%	$ -0-	$ 1,178,543 47.47%	$ -0-	$ 1,210,218 48.74%	$ -0-	$ -0-	$ -0-	$ 2,482,884 100%
Minnesota Variable Annuity	$ 27,310,887 28.08%	$ 150,000 0.15%	$ -0-	$ -0-	$ -0-	$ 47,761,328 49.11%	$ 22,034,126 22.66%	$ -0-	$ 97,256,341 100%
	$ 211,321,227 4.02%	$206,195,927 3.92%	$ 991,945,649 18.88%	$140,319,552 2.67%	$848,099,038 16.14%	$2,127,292,379 40.48%	$611,047,890 11.63%	$118,688,488 2.26%	$5,254,910,150 100%
Permanent School Fund	$ 34,746,530 10.91%	$ -0-	$ 181,172,179 56.87%	$ -0-	$ 48,919,003 15.36%	$ 53,727,921 16.86%	$ -0-	$ -0-	$ 318,565,633 100%
Treasurers Cash	$ 440,739,090 93.85%	$ 28,900,896 6.15%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 469,639,986 100%
Transportation Funds	$ 222,994,156 74.93%	$ 74,616,481 25.07%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 297,610,637 100%
State Building Funds	$ 37,777,063 74.93%	$ 12,636,836 25.07%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 50,413,899 100%
Housing Finance Agency	$ 128,316,416 93.19%	$ 9,377,030 6.81%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 137,693,446 100%
Minnesota Debt Service Fund	$ 167,631,111 78.33%	$ 46,379,301 21.67%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 214,010,412 100%
Miscellaneous Accounts	$ 64,161,383 84.48%	$ 9,685,753 12.75%	$ 2,102,181 2.77%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 75,949,317 100%
Taconite Area Env. Protection	$ 10,435,000 100%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 10,435,000 100%
N.E. Minnesota Protection	$ 48,310,353 100%	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ -0-	$ 48,310,353 100%
	$1,366,432,329 19.87%	$387,792,224 5.64%	$1,175,220,009 17.09%	$140,319,552 2.04%	$897,018,041 13.04%	$2,181,020,300 31.71%	$611,047,890 8.88%	$118,688,488 1.73%	$6,877,538,833 100%

(1) All bonds are shown at amortized costs.
(2) All stocks are shown at cost.

Tab E

INVESTMENT ADVISORY COUNCIL

ASSET MIX COMMITTEE

SUPPLEMENTAL REPORT TO THE

STATE BOARD OF INVESTMENT

December, 1983

INTRODUCTION

In its August 1983 report to the State Board of Investment (SBI), the Asset Mix Committee of the Investment Advisory Council considered the issue of long-term performance objectives. Although the Committee outlined its recommended approach toward establishing performance goals, specific risk-return objectives were not developed. The Committee believed that it is preferable to address this important matter on a separate basis. Accordingly, the purpose of this supplemental report is to present the Committee's detailed recommendations concerning risk-return objectives for the Basic Retirement Funds.

The Committee's August report proposed setting long-term performance objectives on two distinct levels: The total fund and the individual managers.

TOTAL FUND OBJECTIVES

Risk

As noted in the Committee's August report, to a significant degree, the risk level of the total fund is set implicitly when the long-term asset mix for the fund is determined. Given their adequate funding levels and long-term investment time horizons, the Committee recommends that the Basic Funds assume an above average risk posture. This goal can be implemented most effectively through a sizable, long-term commitment of the Basic Funds' assets to equities. Moreover, within the equity component the Committee recommends that the stock portfolio maintain a risk position more volatile than that of the aggregate stock market. The effect of these two strategies will be to allow the Basic Funds to take full advantage of the long-run price appreciation potential of equity assets. The Committee's recommendations of 60% common stock and 15% alternative asset allocations, coupled with the proposed combination of a stock index fund and active equity managers, are consistent with the total fund risk objectives recommended in this report. (For further discussion, see Section V of the Committee's August report.)

Return

The Committee's August report discussed the fact that the ultimate goal of defined benefit pension plans, such as the Basic Retirement Funds, should be to earn real rates of return (i.e., returns adjusted for inflation) sufficient to fund promised pension benefits at the lowest cost to the employers and employees. However, for extended periods of time (e.g., the decade of the 1970's), the capital markets may offer investors only insignificantly positive, or even negative, real rates of return. In such cases it may be unrealistic to expect the Basic Funds to generate real returns that exceed targets established on the basis of many decades of capital market history.

Objectives, stated in relative terms against benchmarks whose performances are impacted by the same factors which similarly influence the Basic Funds, represent desirable alternatives to focusing solely on real returns. Two such total fund benchmarks are utilized widely: Market index composites and universes of other balanced funds.

In addition, the Committee recognizes that the Basic Funds must achieve certain rates of return in order to satisfy the assumptions established by the retirement systems' actuaries. The Committee believes that these return requirements should be included formally in the total fund return objectives.

Based on the above considerations, the Committee proposes a combination of return performance objectives for the Basic Funds:

1) Real Rate of Return. Given the historical real returns offered by the capital markets (see Section II of the Committee's August report) and the Committtee's long-term asset mix recommendations, the Committee proposes a long-term 5% real rate of return goal for the Basic Funds. This objective is derived as follows:

Total Portfolio Component	Percent of Portfolio	Annual Real Return
Stock Market Index Fund	40%	6%
Active Equity Managers	20	8
Active Bond Managers	25	1
Alternative Investments	15	6
	----	---
Total Fund	100%	5%

The index fund is expected to earn the same real return historically produced by the stock market. Further, it is anticipated that the active equity managers will generate real returns exceeding those of the stock market by at least two percentage points annually. On the other hand, the bond managers, whose investment role is not as aggressive as that of the active equity managers, are expected to provide roughly one percentage point of incremental real return above the almost negligible amount historically yielded by the bond market. Finally, for lack of better historical data, returns on alternative equity investments (i.e., real estate, resource funds, and venture capital) are expected to perform in line with the stock market.

2) Market Indices. The Committee believes that the returns produced by the Basic Funds should exceed the returns derived from a composite of broad asset class market indices. The indices which make up this composite should represent the primary assets held by the SBI:

stocks and bonds. Ideally, market indices for the alternative assets owned by the Basic Funds should also be included in the composite. However, as was discussed in Section II of the Committee's August report, only limited market data is available for these assets. Thus, their inclusion in the composite is not feasible at this time. As comprehensive market data on alternative equity assets becomes accessible in the future, they should be included in the composite index.

The Committee recommends that the particular indices that will represent the stock and bond markets in the composite should be the Wilshire 5000 and Merrill Lynch Master Bond Index (or equivalently, the Lehman Brothers Kuhn Loeb Government/Corporate Bond Index), respectively. The weightings of these indices in the composite should be the same as the long-term allocations to stocks and bonds described in the Committee's August report. The composite will serve as a measure of the returns available from completely passive management of the stock and bond portfolios, with no deviations from the recommended long-term stock/bond asset mix. Thus, comparisons of the Basic Funds' actual stock/bond returns against those of the composite will assist in evaluating the aggregate benefits (or costs) of active management for the Basic Funds.

3) Total Fund Universes. The Committee believes that the Basic Funds should outperform, on a total return basis, the median of a representative sample of tax-exempt, balanced funds. Given that the Basic Funds' recommended long-term asset mix and manager configurations are not unlike those of many corporate pension plans, and given the highly competitive environment of institutional investing, the objective of above-median performance is realistic, yet at the same time it is not an easily attainable long-term objective. The achievement of results consistently above the median of comparable funds has proved to be an elusive goal for many pension fund managers. Comparisons of the Basic Funds' returns against a universe of similar funds will provide a measure of the relative effectiveness of the Basic Funds' asset mix and management configuration. The Committee recommends that the Merrill Lynch Tax-Exempt Universe (or equivalently, Wilshire Associates' Trust Universe Comparison Service (TUCS), both of which contain a large number of separately managed, balanced accounts) be utilized as a representation of institutional investor performance.

4) Actuarial Requirements. Under the actuarial assumptions currently in effect, the Basic Funds must generate returns of at least five percent annually to avoid

shortfalls in funding levels. The Committee recommends that this requirement be formally recognized as a specific return objective for the Basic Funds. Any changes in assumed actuarial returns should likewise be incorporated in the set of investment goals.

INDIVIDUAL MANAGER OBJECTIVES

Risk

There exists no one universally accepted measure of investment risk for either a single asset class or for all asset classes on an aggregate basis. Despite this major deficiency in investment theory and practice, the Committee has attempted to identify certain common stock and fixed income portfolio risk characteristics which are relevant to the achievement of effective implementation of the Basic Funds' long-run asset mix and management configuration.

Within the common stock portfolio, two risk parameters are of primary importance: Volatility of returns relative to the market and diversification. Relative volatility (also known as market-related risk) refers to the degree to which a common stock portfolio's returns are sensitive to changes in the stock market's return. A high relative volatility portfolio will exhibit returns which increase or decrease more than the stock market's returns increase or decrease. A low relative volatility portfolio, conversely, will generate returns which increase or decrease less than the market's returns increase or decrease. Relative volatility of returns can be measured by a statistic referred to as beta. A portfolio which is just as volatile as the market will possess a beta of 1.00. A high volatility portfolio will have a beta greater than 1.00 and a low volatility portfolio will have a beta less than 1.00. To illustrate how the concept of beta can be applied, consider a stock portfolio with a beta of 1.20. Given a ten percentage point increase (decrease) in the stock market's return, the portfolio's return will be expected to increase (decrease) by twelve percentage points (i.e., increase (decrease) twenty percent more than the market).

Diversification refers to the extent to which a portfolio's security holdings statistically resemble the market. This degree of statistical similarity determines the extent to which the returns on the portfolio are correlated with those of the market. A well-diversified stock portfolio will tend to produce returns that are "explained" very precisely by the returns of the stock market. That is, its returns are highly correlated with the market's returns. (However, the magnitude of the movements in the portfolio's returns relative to those of the market will be related to the portfolio's beta.) A stock portfolio with low diversification will generate returns that are not well "explained" by the market. Portfolio diversification (which can be utilized as a measure of a portfolio's non-market risk) can be measured by a statistic known as R-squared. A portfolio whose holdings are essentially the same as those of the market will have an R-squared of 1.00. The less diversified is a portfolio, the lower will be its R-squared value (with a lower bound of zero).

The goal of investing in a stock market index fund is to produce a well-diversified portfolio that will match, as precisely as possible, the returns on the stock market. Thus, the Committee recommends risk objectives for the index fund manager which specify a portfolio beta of 1.00 and a portfolio R-squared of 1.00. However, if the Basic Funds' total common stock portfolio is to achieve superior returns, then the active managers must take above average risk positions. Specifically, the active managers are expected to construct portfolios with low levels of diversification and high level of relative return volatility. Thus, the Committee recommends two specific, long-term average risk targets for the active equity managers: Minimum stock portfolio betas of 1.10 and maximum R-squared values of .850.

The role of the Basic Funds' fixed income portfolio is different than that of the stock portfolio. The bond portfolio is held primarily to provide a deflationary hedge as well as to produce a dampening effect on total portfolio return variability. Therefore, different risk objectives will be assigned to the bond portfolio managers than are specified for the stock portfolio managers. In particular, in order to provide adequate protection against deflationary forces, the individual bond portfolios should be invested in high quality, intermediate to long-term bonds. Specifically, the Committee recommends that the bond managers be required to hold securities which satisfy the statutory restrictions on fixed income investments (see Minnesota Statutes 11.24 subd. 2-3). Perhaps most importantly, these statutes permit the Board to own only fixed income securities with an investment grade rating of at least BAA. Further, the managers' individual bond portfolios should possess a duration of at least three years. This restriction will prevent the Basic Funds' total bond portfolio from assuming an excessively short-lived position and thus, severely diluting its deflation hedge capacity. In addition, to avoid significant total bond portfolio return variability, the durations of the individual managers' bond portfolios should not be over-extended. Thus, the maximum duration of their portfolios should be limited to seven years. (As a reference point to this discussion, the average duration of the Merrill Lynch Master Bond Index is approximately five years.)

Return

The return objectives that the Committee recommends for the individual managers are similar to those proposed for the total fund. That is, manager performances should be compared to three types of benchmarks: Real returns, market indices, and returns produced by other managers.

1) Real Rates of Return. The long-run real rates of

return, that are expected to be produced by the individual managers within their respective asset classes, were discussed above. To reiterate, the stock index fund manager is targeted to earn real returns equal to those historically produced by the stock market, 6%. The active equity managers, due to their aggressive management style, are expected to generate real returns exceeding those of the stock market. At a minimum, they are expected to generate real returns two percentage points greater than the stock market's historical real return, which implies a real return goal of 8%. Similarly, it is anticipated that the bond managers, again due to their active investment style, will produce real returns that exceed those of the bond market. The bond market's historical real return has been essentially zero. The bond managers, whose investment style will be less aggressive than that of the stock managers, should earn real returns of at least one percentage point above the bond market's historical real return, or equivalently, 1%.

2) Market Indices. The rate of return performances of the individual managers should be compared to that of representative market indices within the managers' particular asset classes. Passive managers should be expected to produce returns within a narrow band around

those of their target market indices (adjusted downward slightly due to trading costs). Active managers, because of the additional risk which they assume, should outperform their target market index. To maintain consistency with the total fund return objectives, the individual stock managers' performances should be compared to the Wilshire 5000, while the bond managers' performances should be evaluated relative to the Merrill Lynch Bond Index.

The Committee further recommends that staff pursue efforts to construct customized market indices for each of the managers. The custom indices would represent the particular investment approaches of each manager. In order to effectively concentrate on a specific investment style, many managers purposely restrict their investments to particular sectors of the equity or bond markets. Thus, performance evaluation is facilitated by comparisons to an index which measures the performance of these sectors rather than the entire market.

3) Similar Managers. As was discussed above, comparisons of a total fund's performance against that of other funds with similar goals and constraints provides insights as to the relative effectiveness of the fund's investment management. Likewise, comparisons of

individual managers' returns against those produced by other managers in the same asset class and of similar investment styles can assist in evaluating the managers' individual capabilities. Wilshire Associates' Trust Universe Comparison Service (TUCS) has the flexibility to produce such comparisons. The Committee recommends that staff work to construct segments of the TUCS universe which represent the particular investment approaches of the SBI's managers (e.g., high beta, low R-squared active equity managers). The managers would then be evaluated against these universe segments, with the objective of producing returns superior to those of the median account over reasonably long periods of time.

Tab F

ALTERING MANAGER ASSET ALLOCATION

DECISION RULES

EVENT	WITHHOLD CASH FLOW	REMOVE ASSETS
I. ORGANIZATION		
A. Ownership changes or organizational structure is altered significantly.	Professional staff evidences dissatisfaction	Changes in the investment philosophy of firm take place
B. Firm branches into new businesses or sources of profit shift substantially away from investment management	When it takes time of key investment staff	Resources devoted to investment management become inadequate
C. Serious disagreements among top management take place	Professional staff evidences dissatisfaction	Key staff leaves due to dissatisfaction with conflict
D. Firm's profitability drops	Professional staff evidences dissatisfaction	Key staff leaves because of insufficient compensation
II. ASSETS UNDER MANAGEMENT		
A. Growth in assets	Violation of stated corporate policy on asset growth occurs	Investment approach is altered or there is evidence of impairment of flexibility
B. Growth in new accounts	New portfolio managers brought on in relatively short span of time	Key investment staff forced to devote excessive time to individual account servicing
III. STAFF		
A. Key investment staff leave or are replaced (e.g., senior portfolio managers, senior analysts)	Key investment staff leave; replacements retained appear promising and retain same investment approach, but they are relatively unknown to client	Key investment staff leave; replacements are unacceptable and/or investment approach is altered
B. Support staff leaves	Client communications and servicing are adversely	Substantial distractions for key staff occur

EVENT	WITHHOLD CASH FLOW	REMOVE ASSETS
IV. INVESTMENT APPROACH		
A. Strategy diverges from basic philosophy		Only retain if changes are appropriate for client and firm has investment skills to implement change
B. Asset/sector allocation characteristics change	Questions arise as to rationale for changes or skills to implement them	Strong concerns arise and confidence lacking as to firm's ability to effectively implement changes or if changes inappropriate for client objectives
V. PERFORMANCE		
A. Market timing decisions unsuccessful (if attempted)	Equity portfolio outperforms returns on the total portfolio over four quarters	
B. Sector weighting and stock selection decisions unsuccessful	Active equity portfolio underperforms static equity portfolio over four quarters	
C. Poor total portfolio performance relative to the market		Total portfolio underperforms the Wilshire 5000 over a two-to-three year period
D. Poor performance relative to other managers of similar style	Portfolio performs below median of TUCS aggressive manager subsample over four quarters	Portfolio performs below median of TUCS aggressive manager subsample over two-to-three year period
VI. MISCELLANEOUS		
A. Litigation	Regardless of merits if judged to be a distraction to key staff	Integrity of firm is in serious question or key people leave
B. SEC Investigation	Upon announcement	Integrity of firm is in question or key people leave
C. Other Factors	The Board may wish to modify this list of decision rules at some point in the future to reflect other	

Tab G

VENTURE CAPITAL

JANUARY

1984

I. Introduction

In recent years, the impressive returns generated by venture partnerships and the well-chronicled successes of venture-backed firms such as Cray Research and Apple Computer have stimulated investor interest in venture capital. This investor enthusiasm has resulted in an increased flow of funds to the venture industry, which, in turn, has led to growth in the number and size of venture partnerships soliciting new commitments.

It is with this backdrop of rapid venture industry growth that the State Board of Investment is initiating its examination of venture capital partnerships. Staff believes that, given the current industry activity, it is particularly important for the Board to adopt a well-defined and rigorous venture capital selection process. The process and corresponding set of selection criteria recommended by staff are designed to identify attractive venture capital limited partnerships and provide a comprehensive framework against which the risk/return characteristics of individual venture partnerships may be examined.

It is the purpose of this paper to: describe the development and current status of the venture capital industry; present a rationale for including venture capital investments in the SBI portfolio; recommend a selection process and a set of selection criteria; and finally, consider the process of monitoring venture capital investments. Section II of the paper presents an overview of the venture capital industry including its history, current sources of venture capital funds, and types of venture firms. Also included is a description of the selection process and criteria employed by the typical venture capital partnership in making portfolio company investments. Section III examines the rationale for making investments in venture capital limited partnerships. Sections IV and V present the investment strategy, the selection process, and the selection criteria recommended by staff. Finally, Section VI discusses a suggested process for monitoring venture capital investments.

II. What Is Venture Capital?

Investments in venture capital typically involve the provision of long-term equity financing to rapidly growing high-technology businesses in primarily their early and expansion stages of development. However, venture capital investments also include leveraged buyout financings of mature firms. Portfolio companies acquired through leveraged buyouts are generally stable, low-technology industrial or manufacturing firms.

Early stage financing is composed of three forms of investment: seed, start-up and first stage financings. Seed financings typically provide small amounts of capital to entrepreneurs for the refinement of a product concept. Start-up financings provide capital for product development and initial marketing. Finally, initial commercial manufacturing and sales are funded through first stage financings.

In the early stages of a company's development, a capital infusion without active external management assistance is often insufficient to make a venture successful. However, in the later stages of company growth, entrepreneurs are typically less reliant upon outside management assistance. Thus, early stage investments often present the greatest opportunity for value-added contributions by venture capitalists in the form of direct participation in company policy decision-making and implementation.

Expansion financing includes intermediate stage and bridge (transition stage) financings. Funds for working capital, plant expansion, and product improvement are provided through intermediate stage financings. Bridge financings typically provide capital to well-managed young companies that have passed through the early venture risk phase of their development and are candidates for acquisition or public financing within a two year period. In general, these companies will not only have fully-developed management teams and a product in the market but will also be generating significant revenues.

Leveraged buyouts refer to the acquisition of a portion or all of an existing company by a new corporation, which is funded, simultaneously with the acquisition, by significant amounts of debt relative to the contributed equity. Typically, the portfolio company buyer provides 25% of the acquisition price and uses the assets of the portfolio company as collateral to borrow the remaining 75% to 90% of the acquisition price from a combination of banks, insurance companies, and pension funds.

Most often, companies acquired in leveraged buyout transactions are stable and mature, low-growth manufacturing firms which may be revitalized by buyout specialists and company management with the infusion of new capital. Closely-held private industrial companies and divisions or subsidiaries of large conglomerates often are attractive buyout candidates.

A. History of Venture Capital

Early venture capital activity was dominated by wealthy families such as the Rockefellers, Phipps, and the Whitneys. However, in 1946, the first significant step toward the institutionalization of venture capital investing occurred with the formation of the Boston-located American Research and Development Corporation (ARD). The initiation of public stock offerings by ARD to attract outside capital signaled a new direction in venture investing. ARD also established the high-technology, value-added orientation of the industry.

The second major event in the development of the venture capital industry took place in 1958 with the enactment of the Small Business Investment Act which provided for the creation of Small Business Investment Companies (SBICs). The purpose of the act was to stimulate the flow of capital to small businesses for which conventional sources of financing were not available. The SBICs, which were licensed by the Small Business Administration, utilized tax advantages and government lending at below market rates to provide equity capital and long-term loans to small firms.

During the 1960s, the growth in the number and size of SBICs increased the public awareness of the need for small business funding and provided the major impetus for the expansion of the entire venture capital industry. However, many of the early SBICs failed to generate adequate returns for investors in relation to the returns produced by traditional investments due to inadequate loan standards and excessive government regulations. In order to avoid these regulations, a number of private firms, structured primarily as limited partnerships, were established in the late 1960s.

The recession of 1974 and 1975 created significant problems for the new private venture limited partnerships, which focused initially on early stage financings. During this period, the public markets were relatively unreceptive to new issues, and thus, the financing options open to venture-backed private firms were limited. To support the growth of fledgling portfolio companies, venture capitalists were forced to expand into later stage financings. Venture capitalists also turned to leveraged buyouts and public market transactions of undervalued emerging growth company stocks to generate higher returns than were available, at that time, through early stage financings.

Investor interest in the venture capital industry diminished somewhat during the recession. However, the period is particularly important for current institutional investors because there emerged from this venture capital cycle a cadre of skilled venture capitalists who were experienced in all stages of venture financing, highly flexible in adapting to market conditions, and able to add considerable value to venture investments through long-term involvement with entrepreneurs.

The lowering of the capital gains tax and the liberalization of ERISA investment requirements caused a resurgence in venture activity in the late 1970s and early 1980s. As domestic and foreign investors directed an increased flow of capital to the industry, banks, corporations, and professional venture capitalists formed new subsidiaries and partnerships to manage the funds.

B. Venture Capital Today

Industry Size

The venture capital industry has grown rapidly in recent years. Disbursements by private venture capitalists to portfolio companies increased from $500 million in 1969 to $1.8 billion in 1982. During the same period, the total capital resources committed to the venture industry expanded from $3 billion to $7.6 billion. Of the total $7.6 billion in venture capital under professional management at the end of 1982, however, only 25% represented funds available for new investments. The remaining 75% represented capital which had already been disbursed to portfolio companies and funds which were being reserved for follow-on financing rounds.

In early 1983, 70 private venture capital firms were soliciting an additional $2 billion in new capital commitments. During the first six months of the year, 33 of the partnerships successfully attracted $1.15 billion in new funds. By the end of 1983, new commitments should bring the total venture capital under professional management to over $9 billion.

Although the venture capital industry has exhibited dramatic growth, the capital resources committed to the industry currently represent only 1/10 of 1% of total U.S. pension fund assets. The size of the industry in terms of financing business growth may further be put into perspective by comparing the $1.8 billion in 1982 venture capital disbursements to portfolio companies with IBM's 1982 research and development budget of $2.1 billion.

Sources of Funds

The most important sources of venture capital today are pension funds, individuals and families, insurance companies, domestic corporations, and foreign investors.

Pension funds are currently the primary suppliers of venture capital. Although a few pension funds occasionally make direct investments in high-technology firms, most pension funds invest in venture capital through independent limited partnerships.

Wealthy individuals and families continue to be the second major source of venture funds. Of particular interest in this group are entrepreneurs of successful venture-backed firms, who are becoming actively involved in limited partnerships as both investors and advisors.

A third source of capital for the venture industry are insurance companies and domestic corporations. For insurance companies, the long-term orientation of venture investments allows the matching of long-term liabilities with corresponding long-lived assets. For domestic corporations, which provide funds to the industry indirectly through independent partnerships and directly through subsidiaries, obtaining information regarding new technologies and products is often an important venture capital investment objective.

Finally, foreign individuals and corporations are making significant commitments to U.S. venture partnerships. Like domestic corporations, foreign high-tech firms are attempting to keep abreast of new technologies and expand their product markets through venture investment programs.

Types of Venture Funds

Currently, there are three main types of venture capital firms which initiate and manage venture portfolio company investments: 1) private venture firms, 2) Small Business Investment Companies (SBICs), and 3) corporate subsidiaries.

Independent private venture capital firms, which play the dominant role in providing equity capital to young, fast-growing firms, currently manage almost 60% of the total venture capital. Most of the independent venture firms are institutionally funded and professionally managed limited partnerships.

The current popularity of limited partnerships as venture investment vehicles is due primarily to the advantages the limited partnership structure affords institutional investors: 1) the limited partners' liability is limited to their partnership interest, 2) the partnership itself is not taxed, and 3) the partnership's life can be tailored to the duration of the investments.

The second type of venture capital firm is the SBIC. SBICs, which are owned by banks, corporations, venture capital firms and individuals, together account for 17% of the total venture capital funds under management.

Although SBICs enjoy tax benefits and access to below market government funding, they are also subject to certain restrictions: 1) an SBIC may not own more than 49% of the equity of an individual company, 2) not more than 20% of an SBIC's capital may be committed to a single company, and 3) individual portfolio companies funded by SBICs must have assets of less than $5 million.

The remaining 25% of venture funds are managed by corporations. This group includes subsidiaries of financial corporations and non-financial corporate venture capital divisions. Typically, financial subsidiaries initiate venture capital investments in order to maximize total parent company return on investment. In addition to this objective, non-financial venture divisions frequently seek access to new parent-related technologies, products, and firms through their venture investments.

C. Venture Capitalists' Selection Process and Criteria

The selection process and criteria utilized by venture capitalists in making portfolio company investments vary according to the investment orientation of the venture partnership. This discussion applies particularly to limited partnerships. At the present time, limited partnerships are the only form of venture capital investments in which the SBI has legal authority to invest. The Board is not authorized to make direct venture capital investments.

<u>Early Stage-Oriented Partnerships</u>
Venture capitalists who specialize in early stage financings typically receive over 300 funding applications each year. Junior and/or senior partners screen the applications for potential investment candidates, generally selecting only 10% of the applications for further consideration.

In many private venture firms, each of the general partners focuses on the analysis of a particular industry or group of industries. For example, it is not uncommon to find one partner of a technology-oriented venture firm specializing in the computer and software service industries while another covers the medical/health care and biotechnology/genetics fields.

Typically, for each of the companies under serious consideration, the general partner who specializes in the particular industry involved conducts a thorough analysis of the company's business plan. Of principal interest to the partner are the product and market descriptions, management resumes, and current and pro forma financial statements included in the plan.

The general partner then continues the portfolio company investigation by conducting extensive meetings with the company's management team, bank officers, trade suppliers, competitors and customers, as well as former employers and subordinates. At this point, technical and market consultants may be enlisted to analyze the product and the competitive environment.

Finally, the general partner presents his findings and makes a recommendation to the venture team. In most firms, a unanimous vote of the senior general partners is required before an investment may be made in a portfolio company. In general, of the many funding applications received each year, only 1% to 3% will be accepted by the venture team.

A 1983 survey by SBI staff of over 50 venture capital limited partnerships revealed that most of the early stage-oriented partnerships sampled employ a similar set of selection criteria. The key criteria cited by the majority of the venture firms are the quality, experience, and integrity of a company's management. In order for the venture capitalists to be able to add value to early stage investments, general partners select entrepreneurs who are willing to work closely with them. Venture capitalists also prefer company management teams with previous operating, marketing, and technical experience. In fact, several early stage venture capital partnerships limit funding to entrepreneurs who have already successfully started and operated a high-tech company.

The size of the potential market for a portfolio company's products is the focus of a second set of selection criteria. Early stage venture capitalists typically seek companies whose products are well-positioned to compete in rapidly expanding markets. These companies generally have products which are proprietary in nature, fill a particular market niche, or enjoy a competitive advantage due to patent or trademark protection, distributive power, cost advantages, or industry barriers to entry.

A third set of criteria relates to the type of product produced by a portfolio firm. Although early stage venture limited partnerships frequently invest in high-technology industries, general partners rarely fund entrepreneurs whose products need substantial research before the product can be brought to market.

Transition Stage-Oriented Partnerships

The selection process followed by venture capitalists who specialize in transition (bridge) financings is similar to that followed by early stage specialists. The funding applicants, however, are companies who have already passed through their early venture risk phase. Since many later stage companies have already been investigated by previous venture investors, a transition analysis is typically not as rigorous as an early stage investigation.

Transition stage specialists employ four primary selection criteria. When public markets are particularly receptive to new issues, the valuations of later stage companies increase significantly as lead investors and entrepreneurs anticipate successful public offerings. Thus, the first and key criterion for transition financing specialists is the conservative pricing of the bridge round.

A second selection criterion for transition specialists is an experienced and complete management team. In addition, unlike early stage portfolio companies, transition candidates must already have a product in the market and be generating substantial revenues. Finally, in most circumstances transition portfolio companies should already have reached profitability.

<u>Leveraged Buyout Specialists</u>

The leverage employed in the acquisition of a buyout company creates substantial financial risk. Because fluctuations in cash flows may create difficulties in meeting debt service obligations, buyout specialists seek investments in stable companies with steady earnings. Therefore, the selection criteria utilized by buyout specialists in selecting mature portfolio companies are somewhat different than the criteria employed by traditional venture capitalists in the analysis of young, high-growth firms.

Further, in classic leveraged buyouts, the assets of the portfolio company are used as collateral to borrow from 75% to 90% of the firm's acquisition price from a group of institutional investors, typically, banks, insurance companies, and pension funds.

Banks generally provide loans which are secured by a portfolio company's current or fixed assets. Insurance companies and pension funds, on the other hand, frequently acquire "vertical strips" of unsecured senior debt and subordinated debt with warrants to augment their equity participation. Thus, since leveraged buyout specialists must negotiate the pricing of the debt, equity, and debt/equity hybrids, the investigation and negotiation phase of the investment process is generally much more complex for leveraged buyouts than traditional venture investments.

Like early and transition stage venture capitalists, buyout specialists regard a quality, committed management team as the key to a successful investment. Typically, buyout specialists expect management to purchase 10% to 20% of the portfolio firm's equity on similar terms as institutional investors.

Unlike traditional venture capitalists, however, buyout specialists target low-technology firms with proprietary products, strong distribution channels, manufacturing efficiencies and low capital expenditure needs. Especially attractive to buyout specialists are companies with excess assets which can be sold after the acquisition to immediately reduce debt. Desirable portfolio company financial characteristics include low debt ratios, consistent cash flows, and minimal contingent liabilities.

D. Future Industry Concerns and Directions

The rapid growth of the venture capital industry has engendered considerable discussion concerning the large amount of capital available for disbursement in relation to the number of attractive investment opportunities. This issue of whether there are "too many dollars chasing too few deals" is one that deserves the attention of venture capital investors.

The great increase in the number of both venture firms and new capital commitments does suggest the possibility of competing venture capitalists driving up portfolio company valuations and concomitantly, lowering eventual venture capital returns. Venture capitalists, however, report an increase in the number of high quality investment proposals submitted to them. Leveraged buyout specialists, too, point to a rise in investment opportunities resulting from the continued deconglomerization of American business. Thus, it appears that there may be many attractive venture investment opportunities still available.

However, junior partners, investment bankers, and entrepreneurs, encouraged by the flow of capital to the venture industry, are organizing new limited partnerships in record numbers. This means that much of the capital now being solicited will be managed by general partners who lack extensive direct venture capital experience. Thus, the key concern for venture capital investors may not be the over-abundance of venture dollars, but rather the scarcity of experienced general partners to invest and manage them.

An additional concern for investors may be the trend toward the raising of very large $100 to $160 million funds. Many of these large funds, termed "megafunds", are managed by senior partners who are very experienced in venture investing. The rapid growth of the capital under "megafund" management suggests, though, that senior partners may be forced to delegate many investment responsibilities to junior partners and inexperienced associates. In addition, the pressure to invest $150 million over three to four years may result in an increase in the size and number of individual portfolio company investments. Thus, the managers of the very large funds now being raised may be precluded from making the kind of small, time-intensive, value-added investments which generated high returns on previous funds.

III. Rationale for Venture Capital Investing

Institutional investor involvement in venture capital investments has grown dramatically over the past several years. This increased participation has primarily been due to the attractive returns produced by venture capital funds. In addition, venture capital investments have come to be viewed as a means of increasing the degree of diversification in a pension fund without sacrificing returns.

Historically, venture capital investors have been rewarded with impressive returns on their investments. Although returns of 25% to 30% per annum have been typical, extraordinary returns of 40% to 60% per annum have been reported by some funds. Stan Pratt, a leading venture capital consultant, analyzed the rates of return reported by 50 venture capital funds during the period 1960 to 1980. Pratt found that both the mean and median reported rates of return for the twenty year period were approximately 25%. The standard deviation, a measure of the volatility of the returns, was 13%. A summary of Pratt's analysis is presented in Table 1.

TABLE 1

Return on Investment (ROI) Analysis for 50 Venture Capital Funds

Initial Year of Fund or Initial Year of Calculation	Number of Funds	Average Duration	Median Return	Mean Return	Standard Deviation
1960-to-1970	13	10.9 Yrs.	20.6%	23.7%	15.5
1970-to-1975	28	7.5 Yrs.	23.4%	24.0%	12.4
1975-to-1980	9	3.2 Yrs.	29.7%	30.9%	12.1
1960-to-1980	50	7.6 Yrs.	24.1%	25.2%	13.3

*Includes: 1) private partnerships
2) publicly-held venture capital funds
3) corporate venture capital investment programs
4) bank affiliated venture funds

Source: Capital Publishing Corp., 1982

Investments in venture capital firms have, in fact, outperformed most financial assets over the past decade. Comparisons between the mean compound return generated by venture firms (using Pratt's data) and returns on several market indices are presented in Table 2.

TABLE 2

TOTAL RETURN OF VENTURE CAPITAL INDEX

Year	Venture Capital 100 Index a	S&P 500	Wilshire 5000
1973	-41.5%	-14.9%	-18.5%
1974	-47.2	-25.3	-28.4
1975	134.3	37.3	38.5
1976	60.0	23.7	26.6
1977	41.7	-7.3	-2.6
1978	59.4	6.5	9.3
1979	41.4	18.6	25.6
1980	77.4	32.5	33.7
1981	-13.4	-5.0	-3.7
1982	26.1	21.6	18.7
10 Year - 1973-82 Annualized Return	21.8%	6.8%	7.7%

a The index is the unweighted stock price of companies meeting the following criteria: the companies must have been public for less than twelve years; early financing was provided by professionally managed venture funds; and the venture capitalist is still involved.

Source: Capital Publishing Corp., 1982

Related to the potential high rewards are the risks of venture capital investing. However, when considering venture capital, the risk inherent in an individual portfolio company investment should be clearly distinguished from the risk of a limited partnership's diversified package of investments and the aggregate risk of a total pension portfolio.

Individual venture investments are made in firms with highly uncertain futures. Many young firms may either fail completely or may never produce acceptable returns on investment. However, the risk of investing in an individual company, although high relative to traditional stock and bond investments, is not as great as is widely believed. Successful venture capitalists mitigate individual portfolio company risk through thorough analysis and careful selection of portfolio investments, conservative pricing of the securities acquired, and utilization of protective provisions in purchase agreements.

In addition, unlike passive equity investors, venture capitalists have the opportunity to become actively involved in the management of portfolio companies. Through their value-added involvement, venture capitalists are frequently able to solve operating, marketing, and technical problems as they occur. Further, highly experienced general partners are often able to anticipate and prevent problems before they arise, thereby increasing the likelihood of a company's success.

To further reduce the risk inherent in an individual portfolio company investment, venture capitalists generally reserve up to 25% of a limited partnership's committed capital for future portfolio company needs. Use of this follow-on reserve, termed "liquidity management", gives general partners greater flexibility in timing additional syndicated financing rounds and in scheduling the eventual investment liquidation through a new public issue or a merger. Thus, astute liquidity management lessens the impact of market and economic conditions on the outcome of a venture-backed company.

Leveraged buyouts do not possess the same economic risk as early stage and expansion venture investments. However, the debt employed in the leveraged acquisition of a company creates substantial financial risk. An economic downturn or an increase in product competition may decrease company cash flows and make debt service obligations difficult to meet. To mitigate the total risk inherent in an individual leveraged buyout, buyout specialists target mature companies which have essentially passed through their early high business risk phase. After a buyout company has been acquired, buyout specialists focus their value-added activities on generating cash quickly in order to reduce the burden of leverage.

That venture capitalists are often successful in their risk reduction efforts can be seen in the results of a study conducted by Stan Pratt of 218 investments made by five venture capital firms between 1960 and 1978. Of the individual venture-backed companies Pratt studied, the majority (60%) either broke even or provided a positive return to the limited partnership investors. In addition, the gains from several of the more successful investments far outweighed the total losses. Pratt found that the combined profits of the seven most successful investments out of the total 218 were more than three times the sum of all the losses.

In addition to mitigating the risk of individual investments, venture capitalists further reduce the risk to venture capital investors by carefully constructing a diversified portfolio of company investments. Over the life of a partnership, early and transition stage venture capitalists typically invest in 25 to 30 companies. Most often, leveraged buyout specialists make 5 to 10 portfolio company investments over the life of the partnership. Although some venture partnerships focus on specific types of venture capital investments, most funds are diversified according to portfolio company stage of financing, industry segment, and geographic location. In addition, because venture capital investments may be adversely affected by market or economic conditions, venture capitalists typically "diversify over time" by investing committed capital slowly over a period of three to five years.

The successful reduction of venture capital risk through diversified portfolio construction is supported by Stan Pratt's observation that every independent venture capital fund backed by institutional investors and capitalized with at least $5 million has generated a positive return for its investors.

Institutional investors can further lessen their venture capital risk by investing in a number of partnerships. These investors, like general partners, may reduce risk by diversifying total venture capital portfolios according to the financing stage, industry, and geographic orientation of the limited partnerships.

As discussed in the report of the Asset Mix Committee of the Investment Advisory Council, the Basic Retirement Funds have a long-term investment time horizon. Since liquidity concerns are minimal, the long-term orientation and the relatively high return-high risk characteristics of venture capital are consistent with the Basic Funds' needs.

IV. Venture Capital Investment Strategy

According to the asset allocation guidelines adopted by the Board, up to 2.5% of the Basic Retirement Funds' portfolio will be committed eventually to venture capital investments. The inclusion of venture capital investments in the Basic Retirement portfolio is more than justified by the high returns which have been generated by venture capital limited partnerships.

However, as the Board initiates its venture capital investment program, it must consider not only the returns generated by venture capital investments but also the risks associated with those returns. As discussed in Section III, the total risk of venture capital investing can be reduced by constructing a well-diversified portfolio of venture capital investments.

Therefore, staff recommends that the Board establish and maintain a broadly diversified venture capital portfolio comprised of participations in balanced limited partnerships whose objectives specify diversification by industry type, stage of corporate development, and location.

Specifically, the total venture capital portfolio should be constructed in such a manner as to permit investment participation in the three major stages of corporate development: start-up or early stage companies, expansion financings, and leveraged buyouts. In addition, staff recommends that the Board seek investment representation in the six major geographic centers of Boston, California, Colorado, Minnesota, New York, and Texas. The SBI also should diversify its investments across six main industry groups: communications, computers, genetics, medical/health care, energy, consumer related, and industrial products.

Finally, staff recommends that the venture capital investments be made over a two to three year period. This will not only enable the Board to take advantage of investment opportunities as they arise, but it will also provide an additional element of diversification by allowing the SBI to participate in the various phases of the venture capital market cycle.

A venture capital portfolio constructed in this manner should produce a relatively low level of return volatility while generating returns which approximate those of the aggregate venture capital market.

At some point in the venture capital investment program, it may be desirable for the Board to consider investments in special-orientation limited partnerships. With the large numbers of new partnerships being formed, many general partners are attempting to establish venture capital market niches by concentrating their investments in a specific geographic region and/or industry sector or by targeting portfolio companies in a particular growth stage.

Staff recommends that the Board consider participating in special-orientation venture funds only after it has undertaken a sizable commitment to broadly diversified funds. There are two primary reasons for recommending this approach. First, due to their complexity and the added risk, special-orientation funds will require considerably more investigation by potential limited partners than will the diversified venture funds. Staff believes that such analysis will be more effectively done once the Board has gained experience with the diversified funds. Second, there currently exist relatively few special-orientation funds. It is unlikely that the SBI could commit more than a small fraction of its venture capital allocation to such funds. Thus, the Board should focus its initial efforts on the diversified funds where the bulk of its venture capital assets will be placed.

V. Selection Process

Initial Step

The first step in the selection process is the solicitation and screening of potential general partners. An initial list of candidates should be generated with the assistance of investment advisors employed by the SBI and by contacts with other institutional investors. Due to the rapid growth of the venture capital industry, the candidate list should be updated at frequent intervals to ensure SBI access to newly formed partnerships.

For the screening, the SBI staff should contact by telephone each general partner on the candidate list. The purpose of the contact is to identify those general partners and limited partnerships which meet the following criteria:

1. Statutory Requirements --
   The SBI is authorized to invest in venture capital through limited partnerships (MS11A.24, Subd. 6). The Board's investment may not exceed 20% of any partnership, and there must be at least four other unrelated investors in each partnership. The SBI may not make direct venture capital investments.

2. Size of Fund --
   Due to the size of the assets to be committed to venture capital and the 20% limitation on the investment in a single fund, the venture capital limited partnerships which the SBI selects generally should have a minimum initial capitalization of $30 million.

3. Staff Experience --
   The venture industry is becoming an extremely competitive one. Therefore, it is imperative that the general partners

with whom the Board invests have direct venture capital experience in selecting portfolio companies, structuring investment transactions, syndicating financing rounds, managing venture portfolios, and arranging for the liquidation of portfolio company investments.

4. Compatibility with SBI Investment Objectives --
For corporate development venture capital investors, obtaining information about new technologies and products may take precedence over generating a return on partnership investment. Thus, it is particularly important that the principal focus of the limited partnerships in which the SBI invests be the maximization of total rate of return rather than the identification of new technologies. In addition, since critical partnership issues can be determined by a vote of limited partner investors, it is also important that other fund participants possess goals and objectives consonant with those of the SBI.

5. Diversification Potential --
As discussed in Section III, a reduction in the volatility of portfolio returns may be achieved by diversifying the venture capital portfolio according to the industry, location, and corporate development stage of individual portfolio companies. Therefore, the general partner candidates should be questioned by staff regarding proposed investment strategy in order to determine whether the partnership will make a contribution towards diversifying the total SBI venture capital portfolio.

Second Step

General partners who pass the screening should be interviewed by the SBI staff in staff's offices. At this point in the selection process, there are numerous factors, both quantitative and qualitative, which must be considered.

Investment Criteria

1) Organization

Ownership structure

Background and performance of the firm in venture capital

Firm's past experience as a fiduciary

Affiliation with other firms

Relative prominence of venture capital among the firm's undertakings

2) Staff

Experience and age of general partners (emphasis on direct venture capital experience and complementary skills)

Allocation of responsibilities

Length of time staff members have worked together

Turnover rate

Potential impact of staff departures

Co-investment network of professional venture capitalists

Participation in national and local venture capital associations

Support personnel

Affiliation with research organizations/consultants

Compensation and incentive systems

3) Partnership Legal Agreement

Revenue sharing (general partners' carried interest)

Management fee structure (committed capital vs. net asset value based)

Additional expenses allocated to limited partners (accounting, legal, and organizational expenses as a percent of committed capital)

Life of partnership and extension options

Take-down schedule of committed capital

Distribution of return (cash vs. in-kind distributions, re-investment of returns)

Subscription policy

Role of limited partners in partnership decision-making and valuation processes

4) Partnership Investment Strategy

Authorized forms of investment (common stock, debt, convertible securities)

Origination of investments (proportion of lead vs. co-investment positions)

Diversification strategy (location, industry, stage of corporate development)

Maximum proportion of capital committed to single industry, location, firm, or development stage

5) Portfolio Company Selection Process

Proposed schedule for investing fund assets

Processes for generating, investigating, and accepting funding applications

Selection criteria utilized in the investigation process

6) Portfolio Company Investment Management

Type and quality of business assistance provided by general partners to portfolio company entrepreneurs

Liquidity management (e.g., use of cash reserves for follow-on financings)

Syndication of financing rounds

Role of general partners, outside advisors, and investors in portfolio company decision-making

Protective covenants and management incentive provisions utilized in purchase agreements

Preparation for termination of portfolio company investments (initial public offering, merger, sale to management)

Distribution of partnership returns (cash vs. in-kind distributions, re-investment of returns)

Other fund participants

7) Reporting Policies

Frequency and form of communication with limited partners

Financial statements provided to limited partners

Annual meetings for investors and portfolio company entrepreneurs

Portfolio valuation policy

Although the selection criteria are largely self-explanatory, there are several points regarding partnership staff which merit additional comment. Perhaps the most important assets of a venture capital partnership are the experience and abilities of its general partners and associates. Unlike passive investors, venture capitalists must be able to add value to their investments by assisting portfolio company entrepreneurs in a variety of ways. Since it is unlikely that an individual general partner will possess all the requisite skills, it is imperative that the team of partners have a complementary mix of operating, technical, entrepreneurial, and accounting skills to bring to bear on portfolio companies.

In addition, the success of a partnership depends on effective interaction among the general partners and associates. To ensure continuing cooperation over the life of the partnership, it is also critical that the general partners have managed a previous venture capital fund together or have established a venture co-investment relationship.

Due to the heavy capital requirements of fast-growing, high-technology firms, a number of venture capital limited partnerships typically will participate in financing rounds throughout a portfolio company's development. Generally, the partners who orginate the portfolio company investment are able to establish investment terms which are more favorable than those accorded later-round investors. In most cases, the initial general partners assume the lead investor position and bear the major responsibility for assisting company management and for communicating with venture co-investors. Thus, lead investors typically possess the greatest degree of control over the success of portfolio company investments. This, together with the favorable investment terms which may be negotiated by initial general partners, means that the lead position is a desirable one. Therefore, it is important that the general partners with whom the SBI invests possess the ability to originate and lead portfolio investments.

To ensure early access to potentially attractive lead investment opportunities in an increasingly competitive environment, the general partners which the Board selects should have developed an extensive network of investment banking, accounting, law, corporate management and investment professionals from whom funding applications flow. However, because of the time-intensive nature of lead investing, general partners must also have access to attractive co-investment opportunities. Since these opportunities typically are brought to the attention of general partners by fellow venture capitalists, candidates must have established co-investment relationships with other major venture capital partnerships.

Finally, a quantitative analysis of the general partners' past return performance, although an essential part of a partnership evaluation, should be subordinate to the consideration of more qualitative factors. Since general partners are particularly vulnerable to changing economic conditions over the long life of a partnership, the general partners' past performance record may not be indicative of future partnership returns. In addition, since the returns from one extraordinarily profitable investment may mask poor returns from a large number of other investments, an examination of the distribution of partnership returns is more valuable than an analysis of the magnitude of past returns.

Final Selection
For the final stage in the selection process, staff should interview all of the general partners and associates of each partnership. This interview should be conducted in the partners' offices. There the discussion can focus with greater detail on the second-step selection criteria. Particular attention will be paid to those that relate to the experience of staff and the proposed partnership investment strategy. Depending upon the need for additional information, the staff should also meet with past and/or present portfolio company entrepreneurs and institutional investors who have participated in the general partners' previous funds.

VI. Post-Investment Monitoring Process

Limited partners are legally prevented from becoming involved in partnership strategy and policy-making. In addition, transferring a limited partnership interest or withdrawing from a partnership may be extremely difficult, if not impossible. Therefore, the objective of the monitoring process is neither to alter the outcome of the investments nor to time their liquidations.

However, there are several important reasons why the partnership investments should be monitored. First, staff must review the activities of the general partners in order to ensure that both the investment guidelines set forth in the limited partnership agreements and SBI statutory requirements are being met. Further, staff must report to the Board the progress of the investments. Finally, staff should evaluate the investment skills of the general partners in order to determine whether the Board should participate in the partners' succeeding funds.

Staff will begin the monitoring process by examining the semi-annual and annual financial statements provided by the partnerships. In addition, staff will request individual investment summaries for each portfolio company investment. Discussions concerning investment activities and portfolio valuations will be held with general partners on a regular basis and annual partnership meetings will be attended by a staff member. Staff will also continue to consult with Stan Pratt, institutional investors, and general partners to obtain information regarding specific venture capital firms and trends in the venture capital industry.

The information provided by the general partners, venture capital consultants, and institutional investors will be used by staff to establish a venture capital data base. Staff will utilize the data base to make individual limited partnership assessments and comparisons across partnerships.

The general effectiveness of partnership investment strategy and the success of general partners in adding value to individual portfolio companies as measured by portfolio returns on limited partner investment will be of principal concern in the limited partnership evaluations.

Tab H

STATE OF MINNESOTA
VENTURE CAPITAL INVESTMENT MANAGER INFORMATION

I. BACKGROUND DATA

A. DATE OF FINAL INTERVIEW: 12-15-83

B. NAME OF FIRM (I.E., FUND MANAGER): Norwest Venture Capital Management, Inc. (NVCM)

C. NAME OF FUND: Norwest Venture Partners (NVP)

D. ADDRESS: 1730 Midwest Plaza Building
801 Nicollet Mall
Minneapolis, MN 55402

Other offices in:
Portland, Oregon.
Denver, Colorado.

E. TELEPHONE: (612) 372-8770

F. CONTACT: Daniel J. Haggerty

G. TYPE OF FUND: Limited Partnership

H. PROPOSED FUND SIZE
MINIMUM: $35 million

MAXIMUM: $60 million

II. ORGANIZATION

A. OWNERSHIP STRUCTURE OF THE FIRM AND ITS AFFILIATION WITH OTHER FIRMS.

Norwest Venture Capital Management, Inc. (NVCM), will be the fund manager and a general partner of Northwest Venture Partners (NVP or the "proposed fund"). In addition, NVCM will manage Norwest Growth Fund (NWGF) and Norwest Equity Capital, Inc. (NEC). NWGF is a 23 year old SBIC affiliate of Norwest Corporation. NEC is an investment fund formed by Norwest Corporation in January, 1983 to invest in leveraged buyouts. NVCM, NWGF and NEC are all wholly owned subsidiaries of Norwest Corporation. See Exhibit A: Organizational Structure.

B. RELATIVE PROMINENCE AND RELATIONSHIP OF VENTURE CAPITAL INVESTMENT TO OTHER ACTIVITIES CONDUCTED BY THE FIRM.

Venture capital investment is the major activity of the general partners of the proposed fund. The general partners will spend between 75-90% of their time on the management of the proposed fund. The rest of their time will be spent managing NWGF and NEC.

C. BACKGROUND AND PERFORMANCE OF THE FIRM IN MANAGING VENTURE CAPITAL INVESTMENTS.

In addition to the proposed fund, the general partners manage the NWGF. NWGF was organized in 1961 to operate as an SBIC with $2.4 million in initial capital. Since its formation, NWGF has invested in over 160 companies and currently has assets in excess of $80 million. See Exhibit B: Performance Data.

III. STAFF

A. NUMBER OF PROFESSIONAL VENTURE CAPITALISTS AND SUPPORT PERSONNEL.

There are nine professional venture capitalists, four analysts, one controller and a clerical staff involved in the management of the proposed fund.

B. NUMBER OF INVESTMENT PROFESSIONALS ADDED/SUBTRACTED IN THE PAST TWO YEARS.

Three people have been added and one person subtracted in the last two years.

C. ELABORATION ON ANSWER TO QUESTION #2.

Wayne Kingsley, Vice President of the Portland office, recently left NVCM. Since most of his activities were focused in the leveraged buyout area, his absence should not pose a problem for the investment of the proposed fund.

D. ALLOCATION OF RESPONSIBILITIES AMONG EMPLOYEES OF THE FIRM.

The general partners will have total responsibility for the initiation, investigation and continuing investment management of specific portfolio company investments.

E. AFFILIATIONS WITH RESEARCH ORGANIZATIONS AND/OR CONSULTANTS.

The proposed fund will have an independent three person advisory committee. The committee will not be affiliated with Norwest Corporation, the limited partners, or the general partners of the proposed fund. It will be made up of senior business executives who will advise the general partners on investment strategy, valuation, and conflict of interest issues. This advisory committee, not yet formed, will not have any formal authority.

The proposed fund will also retain the services of Durwàrd Balch, who will assist in the evaluation and recruitment of management of portfolio companies. Mr. Balch, a founder of Balch and Watson, Inc., an executive search firm in Minneapolis, MN, was previously Vice President-Personnel Administration for General Mills.

F. FIRM'S CO-INVESTMENT NETWORK OF PROFESSIONAL VENTURE CAPITALISTS.

The general partners have developed working relationships with many of the established venture capital funds in the country. Over the past three years, they have co-invested with over 100 other venture capital firms. Some of the most frequent co-investors in the last three years include:

1. North Star Ventures Minneapolis, MN
2. Winton Associates Minneapolis, MN
3. Brentwood Associates Los Angeles, CA
4. Golder, Thoma Chicago, IL
5. Hambrecht and Quist San Francisco, CA
6. Interwest Partners San Francisco, CA

G. COMPENSATION AND INCENTIVE SYSTEMS UTILIZED BY THE FIRM.

The general partners will receive a salary. In addition, they will contribute 1% of the fund's total capital and be entitled to 20% of the fund's profits and losses (the general partners' carried interest). More than 50% of the general partners' total compensation will be derived from their carried interest.

H. BIOGRAPHICAL DATA ON KEY PERSONNEL, INCLUDING AGE, EDUCATION AND CHRONOLOGICAL EMPLOYMENT HISTORY/ EXPERIENCE (ATTACHED TO THIS REPORT).

IV. PARTNERSHIP INVESTMENT STRATEGY

A. AUTHORIZED FORMS OF INVESTMENT

	EXISTING FUNDS %
COMMON STOCK AND CONVERTIBLE SECURITIES	100%
STRAIGHT DEBT SECURITIES	0
OTHER FUNDS	0
PUBLICLY-TRADED SECURITIES	0
OTHER	

COMMENTS:

B. LOCATION

	EXISTING FUNDS %
EAST	10%
MIDWEST	50
SOUTH	5
WEST	35

COMMENTS:

C. INDUSTRY GROUPS	EXISTING FUNDS %
COMPUTER RELATED	32%
MACHINERY/EQUIPMENT	20
INDUSTRIAL/MANUFACTURING	10
CONSUMER PRODUCTS/SERVICES	15
COMMUNICATIONS	10
ENERGY RELATED	8
MEDICAL RELATED	5

COMMENTS:

D. CORPORATE STAGE OF DEVELOPMENT	EXISTING FUNDS %
EARLY STAGE FINANCING	45%
EXPANSION FINANCINGS	45
BRIDGE FINANCING	0
LEVERAGED BUYOUTS	10

COMMENTS:

The proposed fund will not invest in leveraged buyouts.

E. INVESTMENT ORIGINATION	EXISTING FUNDS %
LEAD INVESTOR	70%
CO-INVESTOR	30

COMMENTS:

F. DIFFERENCES IN FUND COMPOSITION BETWEEN EXISTING FUNDS AND THE PROPOSED FUND.

There will be no major differences in fund composition between the existing fund (NWGF) and the proposed fund.

G. MAXIMUM PROPORTION OF CAPITAL COMMITTED TO A SINGLE INDUSTRY, LOCATION, FIRM OR DEVELOPMENT STAGE.

No limits have been formally established. However, the general partners will diversify as they have in the past with NWGF.

V. PORTFOLIO COMPANY SELECTION/ACQUISITION PROCESS.

A. PROCESSES AND SCREENING CRITERIA UTILIZED IN THE GENERATION, INVESTIGATION AND ACCEPTANCE OF FUNDING APPLICATIONS.

When screening and analyzing potential investments, NVCM will emphasize certain criteria concerning company characteristics. The proposed fund will invest in companies where there is an optimum combination of the following:

1. A highly competent and dedicated management.
2. A proprietary product or service.
3. A market with considerable growth potential.
4. A favorable competitive position that can be maintained and improved.
5. A profitable product with a minimum gross margin, conservatively projected, of 50-70%.

The company characteristics cited above are utilized in each of the following steps in the process of generating, investigating and funding portfolio companies:

1. Through their established relationships with entrepreneurs, other venture capitalists, lawyers, accountants, executive recruiters, and bankers, the general partners will seek out and be presented with many investment proposals.

2. For each proposed investment, at least one of the general partners will review the business plan, question management, and present an initial evaluation of the proposed investment to the remaining general partners at a regularly scheduled weekly meeting.

3. Next, a summary of the proposed investment will be presented to Bob Zicarelli and Dan Haggerty. Dan and Bob will then meet with management to ascertain the validity of the assumptions and ideas presented by the general partner(s) assigned to the company.

4. Reference checks of the portfolio company management will be conducted. In addition, consultants may be retained to perform market and product studies.

5. The individual(s) responsible for the company evaluation will then present a detailed investment proposal which highlights the structure, pricing, downside risks and rates of return estimates for the proposed portfolio company investment.

6. The final investment decision is then made by the general partners.

B. ROLE OF GENERAL PARTNERS, OUTSIDE ADVISORS AND INVESTORS IN THE DECISION-MAKING PROCESS.

The general partners will have sole authority and responsibility for any decisions regarding portfolio company investments.

C. SCHEDULE FOR INVESTING FUND ASSETS.

It will take approximately 3-5 years to invest the whole fund.

For any single portfolio company, it may take from 10 days to 6 months to evaluate and fund an investment. On average, it should take between 4 and 8 weeks.

D. SYSTEM FOR ALLOCATING VENTURE CAPITAL INVESTMENTS AMONG FUNDS/ACCOUNTS.

The proposed fund is being formed to co-invest with NWGF. At least one-half of the available aggregate dollar amount of any new venture capital investment opportunities will first be made available to the proposed fund.

VI. PORTFOLIO COMPANY INVESTMENT MANAGEMENT

A. TYPES OF BUSINESS ASSISTANCE TO BE PROVIDED BY GENERAL PARTNERS TO PORTFOLIO COMPANY ENTREPRENEURS.

NVCM will work closely with portfolio company entrepreneurs providing direction and guidance for all aspects of the business. Most often, they will assist in the recruitment of appropriate personnel, the marketing and distribution of products, and the financing of the business.

B. ROLE OF GENERAL PARTNERS IN PORTFOLIO COMPANY DECISION-MAKING.

The general partners will have direct influence over major company decisions through membership on the Board of Directors.

C. PREPARATION FOR: FOLLOW-ON FINANCINGS, SYNDICATIONS OF FINANCING ROUNDS, AND TERMINATION OF PORTFOLIO COMPANY INVESTMENTS.

1. NVCM will reserve 25% of the proposed fund for follow-on financings.

2. When an investment is syndicated, NVCM will solicit potential co-investors before an initial investment is made. When analyzing potential co-investors the general partners will consider factors such as age, size and the investment policies of the managers' existing funds.

3. NVCM will prepare for the termination of an investment before the initial investment is made. In particular, the general partners will examine the expectations and objectives of the entrepreneurs regarding eventual mergers and public offerings in order to determine whether they are similar to those of the proposed fund. Also, the future attractiveness of the portfolio company as a merger candidate or public company will be investigated through an analysis of prices paid for similar companies in the past.

D. PROTECTIVE COVENANTS AND MANAGEMENT INCENTIVE PROVISIONS UTILIZED IN PURCHASE AGREEMENTS.

The general partners may purchase senior common or convertible preferred stock to give them perference during a liquidation or merger of a portfolio company investment.

Protective covenants typically used include the right to change management or members of the Board of Directors if the portfolio company defaults on an obligation or fails to meet specified standards.

VII. PARTNERSHIP LEGAL AGREEMENT AND FUND ADMINISTRATION

A. REPORTING AND VALUATION

PORTFOLIO VALUATIONS

1. FREQUENCY/BY WHOM.

Portfolio company valuations will be done semi-annually by NVCM with the assistance of the Advisory Committee.

2. VALUATION METHODS USED.

In general, portfolio company investments will be valued as follows:

a. Recent investments will be valued at cost.

b. Mature investments in private companies will be valued at a price established in the last round of financing. If there have been no subsequent rounds of financing, the portfolio company's earnings performance will be used as a guide in valuation.

c. Marketable securities will be valued at their bid price minus an allowance for any trading restrictions.

CLIENT COMMUNICATIONS

1. FORMAT/FREQUENCY OF FUND/CLIENT COMMUNICATIONS.

On an annual basis, limited partners will be furnished with audited income statements, balance sheets and progress and capital account reports. In addition, a summary of each new portfolio company investment will be provided as the companies are funded.

2. ANNUAL MEETING OF INVESTORS/PORTFOLIO COMPANY ENTREPRENEURS.

Yes, starting in 1985.

B. FEES AND EXPENSES.

1. MANAGEMENT FEE STRUCTURE.

The partnership will pay an annual management fee of 2% of committed and contributed capital, adjusted annually for changes in the Consumer Price Index. The fee will be 2% of the value of the fund during any extension of its ten year term.

2. ARE FEES PAYABLE FROM INCOME?

Yes.

3. REVENUE SHARING AND GENERAL PARTNERS' CARRIED INTEREST.

After the return of the limited partners contributed capital, the net realized profits and losses will be allocated 80% to all limited partners as a group and 20% to the general partners.

Prior to the return of the limited partners contributed capital, net realized profits and losses will be allocated to the partners in proportion to their respective capital contributions (i.e., 99% to the limited partners and 1% to the general partners).

4. ADDITIONAL EXPENSES ALLOCATED TO LIMITED PARTNERS.

The partnership will pay, in addition to the management fee, certain expenses not directly related to the management of the proposed fund including legal, accounting, and organizational expenses.

5. DISTRIBUTION OF RETURN POLICY (CASH VS IN-KIND DISTRIBUTIONS, RE-INVESTMENT OF RETURNS).

There will be no re-investment of returns. All returns will be distributed as realized. Distributions may consist of both cash and securities. If securities are distributed, they will be freely tradeable.

C. TERM OF FUND AND EXTENSION PROVISIONS.

The proposed fund will have a life of ten years extendible for three one-year periods at the discretion of the general partner of the fund.

D. SCHEDULE FOR TAKEDOWN OF INVESTOR COMMITMENTS.

40% of capital commitments will be due at the initial closing. Installments of 30% are required on the first and second anniversaries of the initial closing.

E. CLOSING DATE FOR COMMITMENTS.

January 12, 1984.

F. USE OF LEVERAGE.

The general partners do not intend to use leverage.

G. OUTSTANDING CENSURE OR LITIGATION.

None

H. ATTORNEY GENERALS FINAL REVIEW.

Legal review is complete and approved.

VIII. CLIENT BASE

A. NAMES, ADDRESSES, PHONE NUMBERS, CONTACTS AND DOLLAR AMOUNTS INVESTED OF THE FIVE LARGEST CLIENT ACCOUNTS INVESTED IN VENTURE CAPITAL.

-EXISTING FUNDS/ACCOUNTS.

Not applicable.

-PROPOSED FUNDS/ACCOUNTS.

Mr. James M. Walline Lutheran Brotherhood 625 Fourth Avenue South Minneapolis, MN 55415 (612) 340-7313	$ 5,000,000
Mr. Walter C. Johnson Norwest Corporation 1200 Peavey Building Minneapolis, MN 55479 (612) 372-7988	10,000,000
Mr. Mitchell Dann IAI Venture Partners, a Minnesota Limited Partnership 1100 Dain Tower Minneapolis, MN 55440 (612) 371-7780	4,000,000
Mr. James George Oregon Public Employees Retirement System 158 State Capitol Salem, OR 97310 (503) 378-4111	10,000,000
Mr. Daniel O'Connell First National Bank of Chicago Not Individually but as Trustee of the First National Bank of Chicago Group Trust for Pension and Profit Sharing Trusts - Institutional Venture Capital Fund First National Bank of Chicago One First National Plaza Chicago, IL 60670 (312) 732-7974	2,500,000

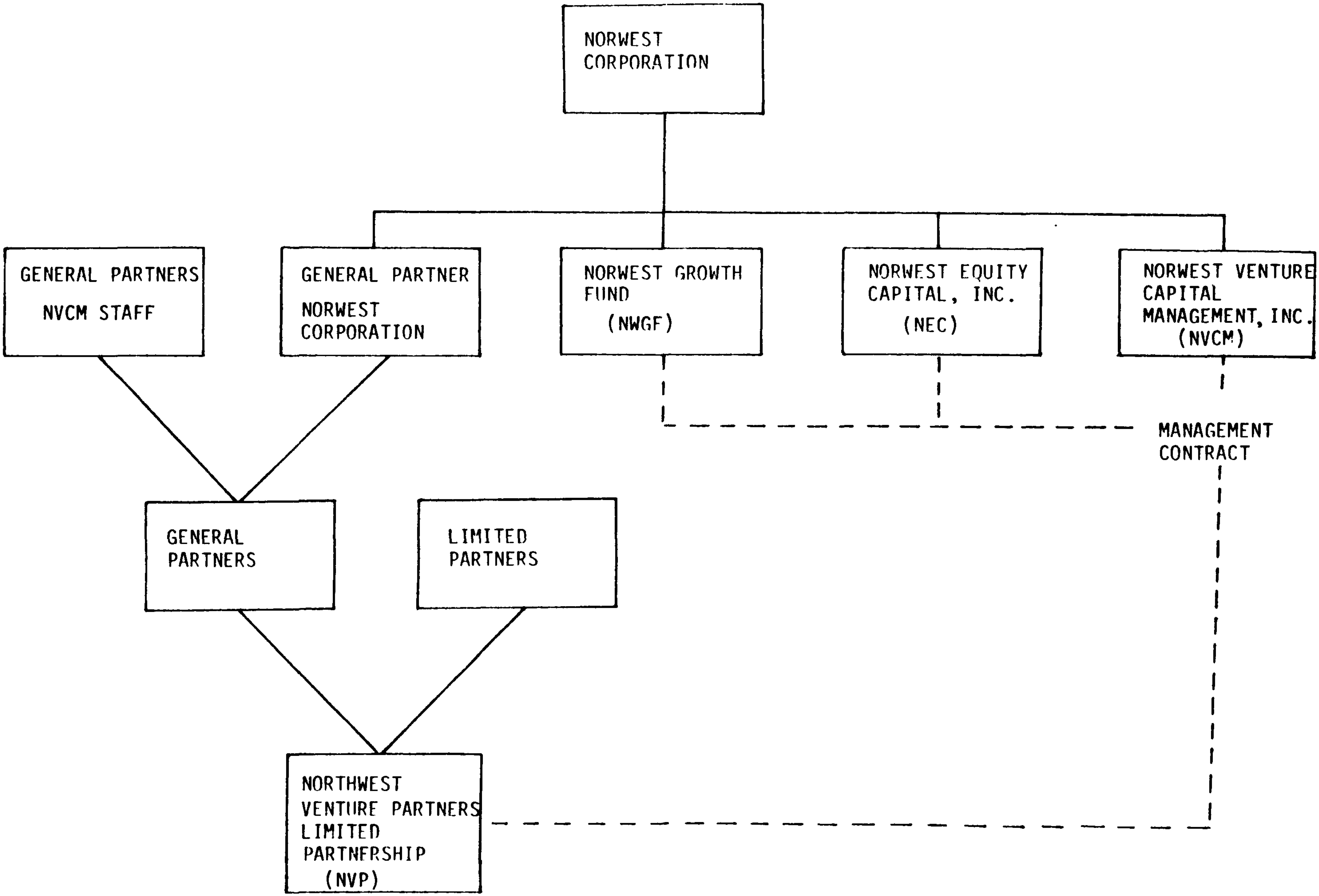
B. DESCRIBE ANY LIMITATIONS THE FIRM IMPOSES OR PLANS TO IMPOSE REGARDING:

-NUMBER OF CLIENTS	None
-MAXIMUM ACCOUNT SIZE ($ OR %)	None
-MINIMUM ACCOUNT SIZE ($ OR %)	$2 million

IX. INTERVIEWER COMMENTS

A distinguishing feature of the proposed fund is the vast experience level of the general partners. Through their involvement with NWGF, the general partners are more "seasoned" than the vast majority of venture capitalists. Their direct encounters with many financial market cycles and the valuable business contacts that have been developed are important assets that will be utilized in the investment of the proposed fund.

EXHIBIT A: ORGANIZATIONAL STRUCTURE



PRIOR INVESTMENT PERFORMANCE OF NORTHWEST GROWTH FUND, INC.

Compounded Rate of Growth in Net Asset Value

One of the most appropriate measures of performance of an investment company is its growth in net asset value plus distributions. The net asset value figures below reflect the cumulative result of all investments made by NWGF during the time period measured and are based in part on management's estimate of unrealized gains and unrealized losses which are discussed in more detail below.

NWGF was formed in 1961 with $2.4 million in capital. Listed below is a summary of the compounded annual rates of growth in net asset value plus distributions, on a pre-tax basis, over various time periods since then. Prospective investors are reminded that NWGF is a corporation that has utilized leverage and has reinvested the proceeds from sales of its portfolio securities. The Fund, on the other hand, is a limited partnership that will most likely not use leverage and typically will not reinvest the proceeds from sales of its portfolio securities. Performance comparisons between corporations and partnerships are difficult, and there can be no assurance that the historical performance achieved by NWGF can be duplicated by the Fund

1961 (Inception) through December 31, 1982		
Beginning net asset value		$ 2.4 million
Distributions net of capital additions		13.2 million
Net asset value at December 31, 1982		56.7 million
Compounded annual rate of growth	20%	
March 31, 1971* through December 31, 1982		
Beginning net asset value		$ 3.7 million
Distributions net of capital additions		10.4 million
Net asset value at December 31, 1982		56.7 million
Compounded annual rate of growth	29%	
December 31, 1977 through December 31, 1982		
Beginning net asset value		$13.9 million
Distributions net of capital additions		9.5 million
Net asset value at December 31, 1982		56.7 million
Compounded annual rate of growth	41%	

*NWGF's fiscal year-end was March 31 until changed to December 31 in 1977.

Net asset value ("NAV") is defined as shareholders' equity at cost plus net unrealized appreciation on investments, without regard to discounts on marketable securities and without any deferred tax provision. Beginning NAV at inception (1961) represents the initial cash contributions by the shareholders. NAV at December 31, 1982 is made up of $21.8 million of equity at cost plus $42.4 million of unrealized gains, less $7.5 million of unrealized losses and expenses. $36.4 million, or 86%, of the unrealized gains is based on the quoted market value of publicly traded stocks and the other 14% is based on an estimate by NWGF.

Among the factors considered by NWGF in making an estimate of the fair value of investments and the resultant unrealized gains or losses are the cost of the investment, developments since the acquisition of the investment, the financial condition and operating results of the issuer, the long-term potential of the business of the issuer, and other factors generally pertinent to the valuation of investments. In making its evaluation, NWGF has relied on financial data of issuers and, in many instances, on estimates by the management of the issuers as to the potential effect of future developments.

NWGF has acquired most of its securities by direct purchase from the issuer without registration under the Securities Act of 1933. In most cases, where registration may be required to dispose of an investment, NWGF has the right to request at least one registration at the issuer's expense. Where a public market exists, NWGF may sell under the limitations of Rule 144 without registration. In most cases, NWGF could not sell its entire holding in any one company in a short period of time due to the limitations of Rule 144 or the limited size of the market for the security. The valuations of publicly traded securities do not take liquidity factors into account, but rather assume an orderly liquidation of the securities over time.

Distributions net of capital additions represent dividends-in-kind made by NWGF to its shareholders, less cash contributed to NWGF by its shareholders. Dividends-in-kind are treated as cash distributions equal to their fair market value at the time of the distribution. Income tax expense is also treated as a cash distribution to be consistent with the pre-tax nature of the rate of growth analysis.

BIOGRAPHICAL DATA ON KEY PERSONNEL

Robert F. Zicarelli, age 59, Chairman. Mr. Zicarelli has been an officer and director of NWGF for 22 years, since its inception in 1961. His investment and venture capital experience spans a period of over 35 years. He is presently Chairman of the National Association of Small Business Investment Companies and has served on the Board of Directors of the National Venture Capital Association. He is also a past President of the Midwest Region of the National Association of Small Business Investment Companies. Prior to joining NWGF, Mr. Zicarelli spent five years at Allstate Insurance Company, where he was involved in making venture capital investments, including investments in Control Data Corporation and Memorex Corporation. Previously Mr. Zicarelli was an Investment Analyst for Northwestern University's Investment Department. He holds a BS and an MBA from Northwestern University. Mr. Zicarelli is a director of numerous companies, including Cray Research, Inc., National Computer Systems, Inc., Detector Electronics Corporation, Econo-Therm Energy Systems Corporation and Garcia's of Scottsdale, Inc.

Daniel J. Haggerty, age 42, President Mr. Haggerty has over 20 years of investment and venture capital experience. He joined NWGF in 1972 as Vice President and has been President since 1979. He has served as Chairman of the National Association of Small Business Investment Companies' Management Institute and is a past President of the Midwest Region of the National Association of Small Business Investment Companies. He is presently a director of Minnesota Wellspring, a consortium of leaders in business, government and education dedicated to improving the business climate and job creation in Minnesota. Mr. Haggerty was employed in various investment-related capacities at Prudential Life Insurance Company of America specializing in private placements of debt and equity prior to joining NWGF. He is a graduate of the College of St. Thomas. Mr. Haggerty is a director of several companies, including Network Systems Corporation, American Medical Systems, Inc., FSI Corporation and FilmTec Corporation.

Anthony J. Miadich, age 40, Vice President. Mr. Miadich has been with NWGF's Portland office since 1978 after fourteen years of management and technical experience in industry. Prior to joining NWGF he spent eight years with TRW, Inc., primarily in its semiconductor division; two years with Raychem Corporation; two years with Decision Dynamics, a management consulting company; and two years with Hughes Aircraft. Mr. Miadich holds BS and MS degrees in electrical engineering from the University of Southern California and an MBA from UCLA. He is a director of August Systems, Inc., Bruce Franklin, Inc., Centigram Corporation and MMR Technologies.

Douglas E. Johnson, age 38, Vice President. Mr. Johnson joined NWGF in 1981 after three years in the Corporate Finance Department of Dain Bosworth Incorporated. Previously he spent ten years in marketing and engineering positions with IBM. He is a graduate of the University of Minnesota and holds an MBA from the College of St. Thomas. Mr. Johnson is a director of CAMAX Systems, Inc., NASTEC Corporation, Systeme Corporation, Systems Management, Inc., Vertimag Systems Corporation and Zycad Corporation.

Larry R. Wonnacott, age 33, Vice President. Mr. Wonnacott joined NWGF's Denver office in 1978 and became manager of that office in 1980. Prior to joining NWGF he spent three years in the commercial banking activities of Central Bank of Denver. Mr. Wonnacott is a graduate of Florida Atlantic University, where he received an MA in economics. He is a director of Communication Consultants, Inc., Gila River Products, Inc., Novatech Corporation and Systems Group of Colorado, Inc.

Timothy A. Stepanek, age 34, Vice President. Mr. Stepanek has been with NWGF since 1981, following seven years with Dain Bosworth Incorporated, where he was an investment research analyst and a member of the Investment Policy Committee. Previously he spent one year with John G. Kinnard & Co. as an investment research analyst. Mr. Stepanek is a graduate of the College of St. Thomas and has an MBA from the University of Minnesota. He is a director of Concord Computing Corporation, D'Lites of America, Inc., Datakey, Inc. and Measuronics Corporation.

Leonard J. Brandt, age 26, Vice President. Mr. Brandt joined NWGF in 1980 after receiving an MBA from the Harvard University Graduate School of Business Administration. Previously he was involved in marketing and direct sales with Vick Chemical Corporation, Roberts Advertising and the Fuller Brush Company. He is a graduate of the University of Illinois. Mr. Brandt is a director of Applied Intelligent Systems, Inc., Management Graphics, Inc. and Parkview Centers, Inc.

Mark Dubovoy, age 36, Vice President. Mr. Dubovoy joined the Denver office of NWGF in 1982 after three years with Vought Corporation in its Business Development Department. Previously he spent four years with Texas Instruments, where he was Manager of International Marketing Equipment Group and was a member of that company's technical staff. Mr. Dubovoy was also Professor of Physics for two years at the National University of Mexico. He has a BS in physics from the National University of Mexico, and MA and Ph.D degrees in physics from the University of California Berkeley.

John P. Whaley, age 30, Treasurer and Secretary. Mr. Whaley has been with NWGF since 1977, when he joined as Controller. He is a Certified Public Accountant and a member of the Minnesota Society of CPAs. Prior to joining NWGF he spent two years in the Auditing Department of Banco. Mr. Whaley is a graduate of the University of Minnesota and has an MBA from the College of St. Thomas. He is a director of Altek Systems, Inc. and Fins & Feathers Publishing Co., Inc.

Tab I

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.

- 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

Tab J

A bill for an act

relating to the state board of investment; establishing combined investment funds; amending Minnesota Statutes 1982, sections 11A.14; and 11A.24, subdivision 2; and Minnesota Statutes 1983 Supplement, section 11A.24, subdivision 1; repealing Minnesota Statutes 1982, section 356.20, subdivision 5.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 1982, section 11A.14, is amended to read:

11A.14 [MINNESOTA COMBINED INVESTMENT FUND.]

Subdivision 1. [ESTABLISHMENT.] ~~There-is-hereby established-a~~ The Minnesota combined investment ~~fund~~ funds are established for the purpose of providing ~~an~~ investment ~~vehicle~~ vehicles for assets of the participating funds. The combined ~~fund~~ funds shall consist of the following investment accounts: ~~a~~ cash management ~~account-and-an~~ accounts, equity ~~account~~ accounts, fixed income accounts, and any other accounts determined appropriate by the state board.

Subd. 2. [ASSETS.] The assets of the combined investment ~~fund~~ funds shall consist of the moneys certified to and received by the state board from participating retirement plans and funds which shall be used to purchase investment shares in the appropriate investment accounts. Each participating fund shall own an undivided participation in all the assets of the combined

~~fund~~ funds. As of any date, the total claim of a participating fund on the assets in each account shall be equal to the ratio of units owned by a fund in each account to the total issued units then outstanding.

Subd. 3. [MANAGEMENT.] The combined investment ~~fund~~ funds shall be managed by the state board.

Subd. 4. [INVESTMENTS.] The assets of the combined investment ~~fund~~ funds shall be invested by the state board subject to the provisions of section 11A.24 ~~with-the-following exceptions:~~

~~(a)-The-cash-management-account-shall-be-invested-in fixed-income-obligations-with-maturities-of-less-than-three years;~~

~~(b)-The-equity-account-may-be-completely-invested-in corporate-stocks~~, except that any individual account may be completely invested in a single asset class.

Subd. 5. [PARTICIPATING PUBLIC RETIREMENT PLANS OR FUNDS.] The following public retirement plans and funds shall participate in the Minnesota combined investment ~~fund~~ funds:

(1) State employees retirement fund established pursuant to chapter 352;

(2) Correctional employees retirement plan established pursuant to chapter 352;

(3) State patrol retirement fund established pursuant to chapter 352B;

(4) Public employees retirement fund established pursuant to chapter 353;

(5) Public employees police and fire fund established pursuant to chapter 353;

(6) Teachers retirement fund established pursuant to chapter 354;

(7) Judges retirement fund established pursuant to chapter 490; ~~and~~

(8) Any other fund required by law to participate; and

(9) Any other fund that the state board determines appropriate.

Subd. 6. [INITIAL TRANSFER OF ASSETS.] As of July 1, 1980, or a later date as determined by the state board, the participating funds shall transfer to the combined investment ~~fund~~ funds all appropriate securities then held together with cash necessary for the purchase of ~~even~~ units in the combined fund accounts.

Subd. 7. [INITIAL VALUATION OF ASSETS AND UNITS.] All assets transferred to the Minnesota combined investment ~~fund~~ funds shall be valued at their current market value as determined by the state board, including accrued interest. The initial value of each account unit shall be $1,000 with each participating fund allocated units in the various accounts of the Minnesota combined investment ~~fund~~ funds in the same proportion as their assets are to the total assets in each account.

Subd. 8. [~~UNREALIZED~~ REALIZED APPRECIATION (DEPRECIATION) ~~ACCOUNT~~.] Any ~~unrealized~~ realized gains or losses in the value of investments incurred by a transferring fund ~~shall-be-recorded-in-an-unrealized-appreciation-(depreciation)-account-which-is-hereby-created.--Any-future-unrealized-gains-or-losses-shall-also-be-recorded-in-this-account-at-the-close-of-each-fiscal-year~~ pursuant to subdivision 7 shall be recognized on the date of the transfer.

Subd. 9. [VALUATION OF UNITS.] (1) Valuation of units for the ~~equity-account~~ accounts in the Minnesota combined investment ~~fund~~ funds shall be performed as of the last business day of each month, or more frequently should the state board determine that additional valuation dates are necessary. ~~Valuation-of-units-for-the-cash-management-account-in-the-Minnesota-combined-investment-fund-shall-be-performed-daily-for-every-business-day.~~

(2) The value of a unit for each account shall be determined by the following procedure:

(a) As of the close of business on the valuation date the state board shall determine the fair market value of each asset in each account, using the references, pricing services, consultants, or other methods as the state board deems appropriate.

(b) The sum total of the market value of all securities plus cash, less the value of undistributed income in each account, shall be divided by the number of units issued and outstanding for the account to determine the value per account unit.

Subd. 10. [PURCHASE AND REDEMPTION OF UNITS.] Purchase and redemption of units shall be on the first business day following the valuation date. All transactions shall be at the unit value ~~as~~ established on the immediately preceding valuation date. Except for the initial purchase of units by an authorized participant, all purchases and redemptions shall be made in cash unless the state board determines that an exception is necessary.

Subd. 11. [EARNINGS DEFINED.] Investment earnings shall be the sum total of the following of each account:

(1) Dividends receivable on securities trading ex-dividend ~~up~~ to and including the valuation date.

(2) Cash dividends received to and including the valuation date that were not accounted for on a previous valuation date.

(3) Accrued interest to and including the valuation date.

(4) Interest received which had not been accrued and accounted for on a prior valuation date.

(5) Income from the sale of options, rights, warrants, or security lending.

(6) Other income received to and including the valuation date.

Subd. 12. [DISTRIBUTION OF EARNINGS.] At least once each ~~month~~ year the state board shall distribute to each participant net earnings determined proportionately in accordance with their average unit holdings in each account during the period. Unless otherwise directed by the participating fund, any distributions shall be used to purchase additional units in the accounts.

Subd. 13. [RECORDS REQUIRED.] The executive director of the state board shall keep accounting records. The records shall reflect the number of units in the Minnesota combined investment ~~fund~~ funds owned by each participating fund. No certificates or other evidence of ownership shall be required.

Subd. 14. [REPORTS REQUIRED.] As of each valuation date, or as often as the state board determines, each participant shall be informed of the number of units owned and the current value of the units. Annually, the state board shall provide ~~to~~ each participant~~,~~ financial statements prepared in accordance with generally accepted accounting principles.

Sec. 2. Minnesota Statutes 1983 Supplement, section 11A.24, subdivision 1, is amended to read:

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 puts and call options and future contracts traded on a contract market designated and regulated by a federal agency.

Sec. 3. Minnesota Statutes 1982, section 11A.24, subdivision 2, is amended to read:

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.

Sec. 4. [UNAMORTIZED BALANCES IN DEFERRED YIELD ADJUSTMENT ACCOUNTS.]

<u>Any unamortized balances in the deferred yield adjustment accounts of the various retirement funds covered by Minnesota Statutes, section 356.20, subdivision 5, shall be offset against the income earned by these funds during the current fiscal year.</u>

Sec. 5. [REPEALER.]

<u>Minnesota Statutes 1982, section 356.20, subdivision 5, is repealed.</u>

Sec. 6. [EFFECTIVE DATE.]

<u>This act is effective the day following final enactment.</u>

Tab K

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed Alliance Capital

2) Date interview conducted 11-1-83

3) Representing Minnesota State Board of Investment

Howard Bicker - Executive Director
Jeff Bailey - Assistant Executive Director
Roger Henry - Equity Manager
Mark Edwards - Portfolio Manager
Daralyn Peifer - Investment Analyst

4) Representing manager

Al Harrison - Portfolio Manager
Jack Koltes - Portfolio Manager
Philip Von Blon - Portfolio Manager

II. PERSONNEL

1) Explain any staff departures since last interview

None

2) Describe any staff additions since last interview

None

3) Describe any changes in the status of the specific manager(s) assigned to the SBT's account

None

4) Comments

III. CLIENT BASE

1) List

Account	10-20-82 Prior Interview Number	Prior Interview Market Value (millions)	11-1-83 Latest Interview Number	Latest Interview Market Value (millions)
Total	41	$ 1,200	50	$ 1,900

2) Provide list of new large institutional accounts

Dow Chemical
Honeywell
H.B.Fuller
Minnegasco
NSP

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None

4) Comments

The firm has no specific plans at this time to limit its growth. However, it is no longer actively marketing its services and anticipates little growth in the number of clients for the foreseeable future.

IV. INVESTMENT STRATEGY

1) Economic outlook

The firm believes that the economy is entering a period of sustained, moderate low inflation growth. Favorable wage settlements, sluggish commodity prices and slack in operating capacity are likely to continue the trend of low inflation through 1984. Real interest rates are historically high, and while they may decline somewhat, they are likely to continue to serve to moderate economic growth. In this economic environment corporate earnings should grow strongly and significantly improve in quality.

2) Financial market outlook

Stocks are viewed as overvalued relative to bonds given current interest rate levels. The firm expects a gradual decline in interest rates that will benefit both bonds and stocks. Over the next year both assets are viewed as attractive. Over the longer term, however, stocks are preferred to bonds given the favorable economic environment and earnings outlook discussed above.

3) Current and near-term projected asset mix

The firm is 90% invested,which it considers to be roughly fully invested. Given its market scenario the firm has no plans to alter this asset mix.

4) Equity sector emphasis

The firm prefers to focus on companies that will not only benefit from disinflation but also companies in whose earnings prospects the firm has high confidence. The firm's portfolio is significantly overweighted in consumer cyclical stocks, in particular retailing, airlines and media stocks. The firm is underweighted in utilities, basic industry, energy, and capital goods stocks. Although the firm does own selected financial stocks, it has avoided money center banks because of the uncertainties involving LDC loans.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed BMI Capital

2) Date interview conducted 11/3/83

3) Representing Minnesota State Board of Investment

Howard Bicker - Executive Director
Jeff Bailey - Assistant Executive Director
Roger Henry - Equity Manager
Daralyn Peifer - Investment Analyst

4) Representing manager

Jerry Barone - Portfolio Manager
Sandra Jerro - Marketing Representative

II. PERSONNEL

1) **Explain any staff departures since last interview**

None

2) **Describe any staff additions since last interview**

None

3) **Describe any changes in the status of the specific manager(s) assigned to the SBI's account**

During the initial interview, the External Manager Search Committee was informed that James Awad would manage the SBI portfolio. However, at the inception of the SBI's account in March, 1983, Norman Fields was assigned as portfolio manager.

Fields' management style was purposely less aggressive and focused than most of BMI's other accounts. At the request of SBI staff and Evaluation Associates, James Awad and Jerry Barone were assigned to the SBI's and Norman Fields was removed.

4) **Comments**

With the lifting of the dividend restriction, the SBI account is now being managed in a similar fashion as other BMI accounts.

III. CLIENT BASE

1) List

Account	7/15/83 Prior Interview Number	7/15/83 Prior Interview Market Value (Millions)	11/3/83 Latest Interview Number	11/3/83 Latest Interview Market Value (Millions)
Total	39	$ 290	41	$ 400

2) Provide list of new large institutional accounts

Commerce Clearing House
Mars Candy - United Kingdom affiliate

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None

4) Comments

IV. INVESTMENT STRATEGY

1) Economic outlook

The firm is expecting the strong economic recovery to continue through third quarter 1984.

2) Financial market outlook

Although BMI continues to view stocks as the most attractive financial asset over the next 12 months, the firm expects a major correction to occur near-term.

3) Current and near-term projected asset mix

The firm is currently 98% invested. However, it is in the process of raising up to 6% in cash by scaling back its positions in specific stocks. BMI anticipates utilizing the near-term correction as a buying opportunity to increase its position in small-capitalization, high-growth firms.

4) Equity sector emphasis

Although BMI typically prefers to focus its investments in fast-growing, smaller-capitalization companies, the firm is currently invested in several large-capitalization companies. Due to the strong earnings potential BMI anticipates for its large-cap holdings, the firm expects to retain them in the SBI portfolio through mid-1984.

BMI continues to emphasize stock selection over industry selection, and its stock selection is still quite broad based. The firm is currently researching the drug stocks and is presently overweighting auto-supply and software stocks.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed Beutel, Goodman Capital Management

2) Date interview conducted November 22, 1983

3) Representing Minnesota State Board of Investment

Howard Bicker - Executive Director
Jeff Bailey - Asst. Executive Director
Roger Henry - Equity Manager
Daralyn Peifer - Investment Analyst

4) Representing manager

Robert Mc Farland - Portfolio Manager

II. PERSONNEL

1) Explain any staff departures since last interview

None

2) Describe any staff additions since last interview

Rich Andrews has been hired as a portfolio manager.

3) Describe any changes in the status of the specific manager(s) assigned to the SBI's account

Before he is assigned to individual accounts, Rich Andrews will be assisting Bob Mc Farland with the management of a number of portfolios. Bob Mc Farland will retain the primary responsibility for managing the SBI's account.

4) Comments

III. CLIENT BASE

1) List

Account	10/14/82 Prior Interview Number	10/14/82 Prior Interview Market Value (Millions)	11/22/83 Latest Interview Number	11/22/83 Latest Interview Market Value (Millions)
Total	3	$ 40	9	$150

2) **Provide list of new large institutional accounts**

Hercules
CPC International
Engelhard
Ohrbachs
Teagle

3) **List and describe circumstances behind any accounts larger than $5 million lost since last interview**

None

4) **Comments**

The Houston office has set a target of $1 billion in total assets managed. As the assets under management grow, the firm intends to hire up to three additional portfolio managers. The firm has no specific plans to limit its asset growth at this time.

IV. INVESTMENT STRATEGY

1) Economic outlook

Although Beutel Goodman expects continued strong economic growth through the next eighteen months, the firm anticipates a slowdown in the rate of economic expansion to occur by MID-1984. Due to favorable energy and unit labor costs, inflation is expected to remain moderate and corporate profitability is expected to improve. With this economic outlook, Beutel Goodman anticipates moderately lower interest rates. Areas of major concern to Beutel Goodman are the LDC debt situation and the strong U. S. dollar.

2) Financial market outlook

Based on its forecast of moderately lower interest rates and rising corporate profitability, Beutel Goodman views the equity market as attractive.

3) Current and near-term projected asset mix

The firm is fully invested (95%) and expects to retain this asset mix. However, Beutel Goodman does not consider itself a market timer. The low cash position is a result of the firm's confidence in the individual stocks in the portfolio rather than an extremely positive outlook for the equity market.

4) Equity sector emphasis

Beutel Goodman continues to focus on medium capitalization companies with low P/E ratios, strong earnings prospects, and higher than average dividend yields. Currently, Beutel Goodman is shifting to a significantly overweighted position in the industrial, cyclical and capital spending sectors. Industry sectors which are underweighted are technology, energy, consumer durables, and housing.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed Hellman Jordan

2) Date interview conducted December 6, 1983

3) Representing Minnesota State Board of Investment

Howard Bicker - Executive Director
Jeff Bailey - Asst. Executive Director

4) Representing manager

Jerry Jordan - Portfolio Manager (Analyst)
Ed Heubner - Portfolio Manager (Analyst)
Martin Hale - Portfolio Manager (Analyst)
Jill Eicher - Administrative Director

II. PERSONNEL

1) Explain any staff departures since last interview

None

2) Describe any staff additions since last interview

None

3) Describe any changes in the status of the specific manager(s) assigned to the SBI's account

None

4) Comments

III. CLIENT BASE

1) List

Account	7/12/83 Prior Interview Number	7/12/83 Prior Interview Market Value (Millions)	12/15/83 Latest Interview Number	12/15/83 Latest Interview Market Value (Millions)
Total	35	$ 700	35	$ 700

2) Provide list of new large institutional accounts

None

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None

4) Comments

The firm continues its policy of not actively soliciting new business.

IV. INVESTMENT STRATEGY

1) Economic outlook

Hellman Jordan's economic outlook essentially is unchanged since July. The firm believes that the economic growth will moderate substantially due to the high level of real interest rates. The economy is expected to grow only 3-4% in 1984. The firm now expects little or no decline in interest rates over the next year. The firm remains very concerned about the international debt situation and its potential impact on U.S. capital markets.

2) Financial market outlook

The firm remains convinced that the outlook for the equity market is poor over the near-term. Hellman Jordan plans to continue a cautious, higher quality, lower-beta approach until either interest rates decline or the equity markets undergo a substantial sell-off.

3) Current and near-term projected asset mix

The firm is significantly underinvested in equities, holding roughly 50% of the portfolio in a mix of intermediate Treasury notes and cash.

4) Equity sector emphasis

Hellman Jordan continues its very heavy overweighting in the consumer durable, consumer nondurable and financial sectors, while having no representation in the capital goods, energy, utility and technology sectors.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed Investment Advisers

2) Date interview conducted 11-1-83

3) Representing Minnesota State Board of Investment

Howard Bicker - Executive Director
Jeff Bailey - Assistant Executive Director
Roger Henry - Equity Manager
Mark Edwards - Portfolio Manager
Daralyn Peifer - Investment Analyst

4) Representing manager

Noel Rahn - Chief Executive Officer
Ken Thorsen - Portfolio Manager
Richard Tschudy - President

II. PERSONNEL

1) Explain any staff departures since last interview

One portfolio manager is retiring at the end of 1983. Her responsibilities have been centered on fixed income management.

2) Describe any staff additions since last interview

The firm is actively searching to replace the retiring portfolio manager.

3) Describe any changes in the status of the specific manager(s) assigned to the SFT's account

None

4) Comments

III. CLIENT BASE

1) List

	Prior Interview 10-21-82		Latest Interview 11/1/83	
Account	Number	Market Value (millions)	Number	Market Value (millions)
Total	130	$ 950	99	$ 1,700

2) Provide list of new large institutional accounts

State of Maryland
Johnson Controls
Dillon Companies
Evanston Hospital
North American Coal
Traycor

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None.

A number of smaller accounts have been moved into the firm's no-load mutual funds.

4) Comments

The firm has a rough target of each portfolio manager handling accounts totaling $300 million. At this time the firm has no plans to limit its growth.

IV. INVESTMENT STRATEGY

1) Economic outlook

IAI expects continued strong economic growth through 1983. However, by early 1984, a distinct slowing in the economy should become apparent. Inflation is expected to remain moderate throughout 1984 due to continued favorable unit labor cost growth. The firm believes the secular inflation problem has been brought under control. Interest rates are expected to fall in this economic environment, with long Treasury rates reaching 9% in the first half, 1984.

2) Financial market outlook

Relative to the current level of interest rates, IAI views stocks as overvalued. But given the firm's optimistic interest rate forecast, both stocks and bonds are viewed as equally attractive in 1984.

3) Current and near-term projected asset mix

IAI is currently 90% invested and expects not to meaningfully alter that position for the next several quarters given its market scenario.

4) Equity sector emphasis

IAI continues to emphasize large capitalization companies. With the stock market overvalued relative to interest rates the firm is concentrating on stock selection versus industry selection. Currently, the firm is overweighting health care, consumer cyclicals, capital goods, financial and building/forest product stocks. The major underweighting is in the energy area.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed Loomis Sayles

2) Date interview conducted December 15, 1983

3) Representing Minnesota State Board of Investment

Jeff Bailey - Asst. Executive Director

4) Representing manager

Ken Heebner - Portfolio Manager

II. PERSONNEL

1) Explain any staff departures since last interview

None

2) Describe any staff additions since last interview

None

3) Describe any changes in the status of the specific manager(s) assigned to the SBI's account

None

4) Comments

III. CLIENT BASE

1) List

Account	7/12/83 Prior Interview Number	7/12/83 Prior Interview Market Value (Millions)	12/15/83 Latest Interview Number	12/15/83 Latest Interview Market Value (Millions)
Total	12	$ 700	12	$ 700

2) Provide list of new large institutional accounts

None

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None

4) Comments

IV. INVESTMENT STRATEGY

1) Economic outlook

Final demand has remained much stronger in the later stages of the recovery than Loomis had earlier envisioned. The firm now expects the economy to remain strong at least through the 1984 elections. As a result, the Fed's expected to continue a restrictive policy keeping interest rates high. Loomis is still positive on inflation over the next year believing that the weakness in oil prices and continued slack in segments of the economy will dampen inflationary pressures.

2) Financial market outlook

The firm is less optimistic on the outlook for the stock and bond markets than it was in July. This change in outlook is primarly due to Loomis' shift in its interest rate outlook, as it now expects rates to remain near current levels through 1984. At this point the firm is neutral on both the stock and bond markets.

3) Current and near-term projected asset mix

Despite its neutral view on the markets, the firm is maintaining essentially a fully invested equity position. If the Fed tightens from this point,Loomis would lower its equity exposure.

4) Equity sector emphasis

In early December the firm eliminated its positions in interest sensitive stocks (brokerage houses, S & L's, and housing companies). It also moved out of its retail stocks due to the maturing of the economic cycle. However, Loomis remains overweighted in other cyclical stocks such as autos and airlines. It continues its heavy exposure to technology.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed ___Norwest Bank___

2) Date interview conducted ___11/1/83___

3) Representing Minnesota State Board of Investment

   Howard Bicker - Executive Director
   Jeff Bailey - Assistant Executive Director
   Roger Henry - Equity Manager
   Mark Edwards - Portfolio Manager
   Daralyn Peifer - Investment Analyst

4) Representing manager

   Ron Hoffman - Portfolio Manager
   Miles Cohen - Portfolio Manager
   James Burnstad - Head Trader

II. PERSONNEL

1) Explain any staff departures since last interview

None

2) Describe any staff additions since last interview

None

3) Describe any changes in the status of the specific manager(s) assigned to the SBI's account

None

4) Comments

III. CLIENT BASE

1) List

Account	10/20/82 Prior Interview Number	Prior Interview Market Value (millions)	11/1/83 Latest Interview Number	Latest Interview Market Value (millions)
Total	NA	$ 25	NA	$ 80

2) Provide list of new large institutional accounts

None

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None

4) Comments

In the October, 1982 interview, Norwest expressed the opinion that $100 million would be its expected limit on aggressively managed accounts. The bank still believes that that limit is applicable.

IV. INVESTMENT STRATEGY

1) Economic outlook

The economic recovery is expected to continue throughout 1984, although slowing significantly by year-end due to high real interest rates. Growth is then expected to reaccelerate in late 1984 in response to an anticipated early-1984 easing of monetary policy on the part of the Fed. By Spring, 1984, long Treasury rates are expected to fall to 10%. Favorable wage patterns and productivity gains, combined with the slowing in economic growth, are expected to cause inflation to remain subdued throughout 1984.

2) Financial market outlook

Although stocks are viewed to be at best fairly valued relative to interest rates at this time, the anticipated modest decline in interest rates makes the bank positive on both the bond and stock markets in 1984. The recent correction in the stock market has further improved the bank's outlook toward equities. Despite this generally positive view, the bank does believe that there is still a significant level of risk in the market and that an emphasis on quality issues is important.

3) Current and near-term projected asset mix

Based on recent stock market corrections, cash positions have been reduced from 25% to 15%. This figure may be further reduced if additional market pull-backs occur.

4) Equity sector emphasis

Norwest continues to retain its emphasis on the technology and consumer sectors while underweighting energy, financial and utility stocks.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed Trustee & Investors

2) Date interview conducted December 6, 1983

3) Representing Minnesota State Board of Investment

Jeff Bailey - Asst. Executive Director

4) Representing manager

Mason Klinck - Portfolio Manager
Richard Welch - Portfolio Manager
Peter Schaedel - Portfolio Manager

II. PERSONNEL

1) **Explain any staff departures since last interview**

One of the firm's assistant portfolio managers left to take a better offer at another investment firm.

2) **Describe any staff additions since last interview**

Peter Schaedel, who most recently headed the pension and investment group at Shawmut Bank, has joined the firm as a portfolio manager. The firm has also retained an EDP operations director.

3) **Describe any changes in the status of the specific manager(s) assigned to the SBI's account**

Peter Schaedel will be working jointly with the firm's other three portfolio managers in handling the firm's accounts.

4) **Comments**

Peter Schaedel apparently was added as part of the firm's growth plans to increase its ability to handle a larger number of accounts and dollars under management.

III. CLIENT BASE

1) List

Account	7/12/83 Prior Interview Number	7/12/83 Prior Interview Market Value (Millions)	12/15/83 Latest Interview Number	12/15/83 Latest Interview Market Value (Millions)
Total	17	$ 500	19	$ 650

2) **Provide list of new large institutional accounts**

Eli Lilly
Hallmark Education Foundation

3) **List and describe circumstances behind any accounts larger than $5 million lost since last interview**

None

4) **Comments**

Trustee recently raised its minimum account size to $25 million. It continues its policy of accepting unsolicited business, but not actively seeking new clients.

IV. INVESTMENT STRATEGY

1) Economic outlook

Trustee's economic outlook is little changed from July. The firm continues to anticipate a strong, sustained recovery extending into 1986. Interest rates are expected to decline to significantly lower levels by mid-1984 as fears of budget deficits and reflation subside. Inflation is expected to remain at low levels.

2) Financial market outlook

The firm remains bullish on financial assets, continuing to believe that significant increases in corporate earnings and lower interest rates will drive the stock market to much higher levels in 1984.

3) Current and near-term projected asset mix

The firm is always fully invested as a matter of investment policy.

4) Equity sector emphasis

Trustee & Investors continues to be overweighted in financial and technology stocks. It also continues to maintain the highest exposure among the managers in the energy sector, although still underweighted relative to the market.

STATE OF MINNESOTA

EXTERNAL EQUITY MANAGER UPDATE INTERVIEW

I. INTERVIEW DETAILS

1) Name of manager interviewed ___Waddell & Reed___

2) Date interview conducted ___December 6, 1983___

3) Representing Minnesota State Board of Investment

   Howard Bicker - Executive Director
   Jeff Bailey - Asst. Executive Director

4) Representing manager

   Fred Mitchell - Portfolio Manager

II. PERSONNEL

1) **Explain any staff departures since last interview**

None

2) **Describe any staff additions since last interview**

A senior technology analyst has been hired.

3) **Describe any changes in the status of the specific manager(s) assigned to the SBI's account**

Henry Hermann, the SBI's portfolio manager, will no longer be managing Waddell & Reed's Science and Energy Fund. This move is designed to focus his efforts on aggressive institutional money management.

4) **Comments**

Waddell & Reed appears committed to having Hermann develop a successful, relatively small, aggressive equity management program. The firm is shifting and limiting his account load to facilitate that effort.

III. CLIENT BASE

1) List

Account *	9/29/82 Prior Interview Number	9/29/82 Prior Interview Market Value (Millions)	12/6/83 Latest Interview Number	12/6/83 Latest Interview Market Value (Millions)
Total	4	$ 308	9	$ 490

* Aggressive equity accounts only. Includes two mutual funds

2) Provide list of new large institutional accounts

Kodak
Copper Weld
Inland Steel
Boeing
Levi Strauss

3) List and describe circumstances behind any accounts larger than $5 million lost since last interview

None

4) Comments

Waddell & Reed has decided to limit the size of its aggressive institutional equity management to $250 million. Currently it is managing $140 million and has commitments for $65 million more (including $15 million from the SBI). However, no limits have been placed on the size of two mutual funds (currently totaling $350 million) which Hermann manages in a similar style.

IV. INVESTMENT STRATEGY

1) Economic outlook

Waddell & Reed remains optimistic about the economic recovery, forecasting that it will continue well into 1985. The firm believes that the economy is in a period of secular disinflation. While real interest rates are likely to remain historically high, due to continued worries about reinflation and the deregulation of the financial sector, the firm sees room for an eventual significant interest rate decline.

2) Financial market outlook

Despite the firm's optimistic long-run view of the economy, Waddell & Reed is pessimistic on the near-term outlook for the stock market. The firm believes that the market has fully discounted the cyclical benefits of the recovery and that continued high real interest rates threaten the stock values.

3) Current and near-term projected asset mix

The firm has moved to a 70% cash position, being very cautious near-term on the stock market. If interest rates decline or the market corrects from current levels, the firm will move back into the equity market.

4) Equity sector emphasis

The aggressively managed funds have significantly reduced their weighting in the Technology sector, although they are still overweighted there. The firm's also overweighted in the financial, consumer durables and capital goods sectors.