MINNESOTA STATE BOARD
OF INVESTMENT
MEETING

December 12, 1984

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INVESTMENT ADVISORY COUNCIL
MEETING

December 11, 1984

AGENDA

STATE BOARD OF INVESTMENT MEETING

Wednesday, December 12, 1984

1:30 P.M.

Room 118

State Capitol
Saint Paul

		TAB
1.	Approval of Minutes of September 5, 1984 meeting	
2.	Executive Director's Report:	
	A. Quarterly Investment Review	A
	1) Basic Retirement Funds	
	2) Post Retirement Fund and Other Investment Funds	
	B. Portfolio Statistics	B
3.	Appointment of New Investment Advisory Council Members	C
4.	Update on the Council of Institutional Investors	
5.	Report from Investment Advisory Council Committees	
	A. Administrative Committee	D
	1) 1985 Legislative Proposals	
	2) Annual Report	
	3) Transfer of Custody of the Supplemental Investment Funds and Variable Annuity Fund to State Street Bank	
	B. Asset Allocation Committee	E
	1) Asset Mix Recommendations for the Post Retirement Fund	
	C. Equity Manager Committee	F
	1) Review of equity manager performance	
	D. Fixed Income Manager Committee	G
	1) Fixed Income Manager Decision Guidelines	
	E. Alternative Investment Committee	H
	1) Report on the progress of the implementation of the alternative investment program and request for approval to participate in two venture capital partnerships	

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
September 5, 1984

The State Board of Investment met on Wednesday, September 5, 1984 at 10:00 A.M. in Room 118 of the State Capitol. Governor Rudy Perpich, State Auditor Arne H. Carlson, Secretary of State Joan Anderson Growe, State Treasurer Robert W. Mattson and Attorney General Hubert H. Humphrey III were present.

The minutes of the May 23, 1984 and June 6, 1984 meetings were unanimously approved.

Executive Director's Report

Mr. Bicker reviewed the quarterly report for the Basic Retirement Funds. The total rate of return for the Basic Retirement Funds for the second quarter was -1.8% due to the continued weakness of both the stock and bond markets. Mr. Bicker outlined the progress of the Small Business Finance Agency Program. He also discussed the Council of Institutional Shareholders proposed by California State Treasurer Jesse Unruh, and stated that he would keep the Board informed about its development.

Investment Advisory Council Report

Judith Mares, Chair of the Investment Advisory Council, reviewed the work of the Council committees. She reported that the Council supported the Administration Committee's recommendation to approve the proposed Board budget, which includes a reduction in five staff positions. She stated that the Committee would examine staff composition in the upcoming months. Ms. Mares also discussed the format change in the Annual Report. She stated the Administration Committee will review performance of the Master Custodian.

Ms. Mares reviewed the recommendations of the Asset Allocation Committee regarding the impact of the Rule of 85 on the cash flow of the Basic Retirement Funds. The Committee recommended that implementation of the long-term asset allocation targets, including commitments to alternative investments, be continued as scheduled. Cash should be raised from four sources: index fund dividends, liquidation of private placements and short-term bonds, and withdrawal of a small portion of the funds managed by the external bond managers. Ms. Mares stated that the Council concurred with these recommendations. She also stated that the Committee will examine the investment structure of the Post Retirement Fund in view of its changing characteristics. Mr. Bicker stated that discussions had begun to establish a dedicated bond portfolio to take care of payment liabilities while investing the balance to provide benefit increases.

Ms. Mares discussed the work of the Equity Managers Committee. The Committee has created three categories for monitoring the equity managers: "normal", "watch", and "probation". Five managers were placed in the "probation" category; four due to their performance relative to the Board's expectations, one due to a change in ownership. Ms. Mares stated that firms will be placed in the "watch" category if circumstances develop, such as the loss of clients or personnel, which may signal future problems. Firms in the "normal" category are those that have met the Board's expectations. Mr. Bicker reviewed the Evaluation Associates report on the equity managers and a staff report on the implementation of the index fund. The Council concurred with the conclusions regarding the index fund. Mr. Carlson stated that the shared responsibility among the Board and Council for reviewing manager performance and deciding to hire or fire managers raises the issue of staff accountability. He stated that Mr. Bicker has the power to fire a manager today if he so decides. Ms. Mares stated that the committee will examine the role of the investment staff.

Ms. Mares reported that the Fixed Income Manager Committee reviewed the funding and monitoring procedures for the external bond managers. She also discussed the recommendations of the Alternative Investment Committee, including the need to develop performance indices, and the introduction of additional monitoring procedures. She stated the third phase of the real estate manager program, the retention of specialty managers, would be completed by June of 1985. The committee recommended that the Board not participate in any direct real estate development or individual transactions. The committee also recommended that the venture capital investment program be accelerated, due to the current favorable environment, and completed within 6-12 months. The committee recommended resource investments proceed over the next 1-2 years as scheduled. Ms. Mares stated that the Council concurred with the committee recommendations. In response to a question from Mr. Carlson, Mr. Bicker stated that he agreed with the decision regarding venture capital due to the return of many seasoned veterans to the market.

Escheated Property

Mr. Bicker reviewed the recommendation of the State Arts Board regarding the placement of the opera recordings. Assistant Attorney General Mike Miles stated that escheated property must be first offered to other state agencies, which would include the University of Minnesota. Mr. Carlson moved that the recordings be put under the jurisdiction of the University. James A. Perkins, representing the Chatfield Brass Band, emphasized that the collection should not be disbanded and should be made available to the public. He recommended the Chatfield Lending Library as a depository for the recordings. Attorney General Hubert H. Humphrey III moved that the collection of opera recordings currently housed in the State Treasurer's Office be declared state "surplus property" with the stipulations that 1) the collection be kept intact; 2) no charge be levied for its use to the greatest extent possible; and 3) it be kept open and available to the public. The motion passed on a unanimous vote.

The meeting adjourned at 10:35 A.M.

Respectfully submitted,

Howard Bicker

Howard J. Bicker
Executive Director

AGENDA

INVESTMENT ADVISORY COUNCIL MEETING

Tuesday, December 11, 1984
2:30 P.M.

MEA Building - Conference Room "A"
41 Sherburne Avenue
Saint Paul

		TAB
1.	Approval of Minutes of September 4, 1984 meeting	
2.	Executive Director's Report:	
	A. Quarterly Investment Review	A
	1) Basic Retirement Funds	
	2) Post Retirement Fund and Other Investment Funds	
	B. Portfolio Statistics	B
3.	Appointment of New Investment Advisory Council Members	C
4.	Update on the Council of Institutional Investors	
5.	Report from Investment Advisory Council Committees	
	A. Administrative Committee	D
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	3) Transfer of Custody of the Supplemental Investment Funds and Variable Annuity Fund to State Street Bank	
	B. Asset Allocation Committee	E
	1) Asset Mix Recommendations for the Post Retirement Fund	
	C. Equity Manager Committee	F
	1) Review of equity manager performance	
	D. Fixed Income Manager Committee	G
	1) Fixed Income Manager Decision Guidelines	
	E. Alternative Investment Committee	H
	1) Report on the progress of the implementation of the alternative investment program and request for approval to participate in two venture capital partnerships	

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

REVISED - November 6, 1984

MINUTES
INVESTMENT ADVISORY COUNCIL
September 4, 1984

The Investment Advisory Council met on September 4, 1984 at 2:30 P.M. at the Minneapolis Club.

Members Present: Judith Mares, Chair; John Allers, Verona Burton, Gordon Donhowe, Ken Gudorf, Malcolm McDonald, Gary Norstrem, Mike Rosen, Joseph Rukavina, Harvey Schmidt, Deborah Veverka, and Richard Hume.

Members Absent: Paul Groschen, Ray Vecellio, and Jan Yeomans.

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

Others Attending: Deborah Feist, Paul Hayne, Andrea Kircher, Mike Miles and Mike Ousdigian.

The minutes of the June 5, 1984 meeting were approved.

DISCUSSION OF COUNCIL MINUTES

The Council discussed the amount of detail included in its minutes. Mr. Bicker stated that the current method was designed to give the Board additional insight into Council deliberations. The Council decided to retain its current practice.

EXECUTIVE DIRECTORS REPORT

Mr. Bicker reviewed the quarterly report for the Basic Retirement Funds. The total rate of return during the second quarter was -1.8%, due to the decline in both the stock and bond markets. During the quarter, the external equity managers outperformed the market, but in aggregate, have underperformed since inception. Mr. Bicker reported that the performance had been strong in 1981 and 1982 relative to the tax exempt universe, but weak in 1983 due to the external equity managers.

Mr. Bicker briefly reviewed the Post Retirement Fund and other funds under management, and stated that the asset allocation of the Post Retirement Fund would be reviewed in detail over the upcoming months. Mr. Bicker also discussed the equity manager updates and portfolio statistics. He noted the decline in cash flow to the Basic Retirement Funds as the result of the passage of the Rule of 85.

In response to a question from Mr. Norstrem, Mr. Bicker stated that all aggressive stock managers have had a difficult time in the recent markets. Mr. Donhowe stated that the types of aggressive managers hired by the Board produce inherently unstable returns. In answer to a question from Mr. Rukavina regarding the Rule of 85, Mr. Bicker stated that there may be a rush of teacher retirements at the end of the school year. Mr. Allers noted the impact for PERA was not as dramatic because they previously had the Rule of 90.

In response to a question from Ms. Mares, Mr. Miles, Assistant Attorney General, reviewed a memorandum on the personal liability and indemnification of the members. In response to a question from Mr. McDonald, Mr. Miles noted that the prudent person rule governing Board investments is not the same standard contained in ERISA.

In response to a question from Mr. McDonald regarding the external equity managers, Mr. Ryan, Evaluation Associates, stated that the performance should be viewed in the context of the whole portfolio. He noted that the common stock index fund and bond component are key factors in the overall investment program.

COMMITTEE REPORTS

ADMINISTRATION COMMITTEE

Mr. McDonald reviewed committee recommendations regarding the annual report, staff organization and budget. The committee concurred with the proposed budget decrease in five staff positions. Mr. McDonald stated that future discussions would focus on the direction of the staff, including its size responsibility and hiring needs. Mr. Bicker stated that the committee would also review the Master Custodian.

ASSET ALLOCATION COMMITTEE

Mr. Donhowe discussed the impact of the Rule of 85 on the cash flow to the Basic Retirement Funds. The committee recommended that implementation of the long term asset allocation targets, including commitments to alternative investments, be continued as scheduled. The committee recommended that cash be raised from four sources: index fund dividends, liquidation of private placements and short-term bonds, and withdrawal of a small portion of the assets managed by the external bond managers.

Mr. Donhowe also reviewed the committee's discussions regarding the long-term asset allocation of the Post Retirement Investment Fund. He stated that committee will recommend that a portion of the fund be placed in a dedicated bond portfolio to ensure the basic level of benefits. The remainder of the fund would be invested to provide a certain level of benefit increases for retirees. The committee will continue to discuss the precise details of this proposed investment strategy in view of the risk-return preferences of retirees. Mr. McDonald stated that the strategy may not be as desirable if interest rates fall dramatically. Mr. Bicker stated the issue would be the focus of extensive Council discussions.

Mr. Donhowe stated that the committee is considering the desirability of market timing strategies for the Basic Retirement Funds, and asked corporate pension plan representatives to submit their opinions to the staff.

In response to a question from Mr. Schmidt regarding the Variable Annuity Fund, Mr. Bicker stated that the Board and Council would focus on the asset allocation of the remaining funds following the completion of the study on the Post Retirement Fund. He noted that the anticipated $1 billion positive cash flow into the Fund over the next 2 years makes the study especially important at this time. Mr. Allers moved approval of the Asset Allocation Committee report. The motion passed unanimously. Mr. Norstrem moved approval of the Administration Committee report. The motion passed unanimously.

EQUITY MANAGER COMMITTEE

Ms. Veverka reviewed the monitoring procedures for the equity managers established by the committee. The committee has created three categories, "Probation", "Watch" and "Normal" for monitoring managers. Ms. Veverka discussed the five managers placed in the probation category: Siebel, BMI Capital, Herbert R. Smith, Loomis Sayles, and Trustee and Investor. Siebel was placed on probation due to concern about the recent purchase of the firm; the remaining managers have had poor investment performance. Managers in the probation category will not receive new contributions.

Ms. Veverka reported that five managers, Fred Alger, Forstmann & Leff, Hellman Jordan, IDS Advisors, and Investment Advisors have been placed in the "Watch" category. Ms. Veverka stated that managers are included in the watch category due to concerns about performance, diversification, or personnel turnover. Mr. Bicker stated that inclusion in the watch category does not indicate total dissatisfaction with a firm, but that it merits further scrutiny.

Ms. Veverka stated that the Committee was satisfied with the staff report on the construction of the index fund. Mr. Donhowe stated that the execution of the fund was outstanding.

Mr. Ryan, Evaluation Associates, reviewed each of the external equity managers. Mr. Donhowe asked the committee to discuss the investment of the assets upon the firing of a manager. Mr. Gudorf requested that the performance of all 15 managers be presented on one page. He also requested data on the performance of the SBI portfolio compared to the other portfolios managed by the firms. Mr. McDonald stated that a time period over which to evaluate the managers needs to be established. Mr. Bicker noted that there are very few guidelines in the investment community regarding the appropriate time period for evaluation relative to the firing of managers. Ms. Veverka stated that since the managers were retained, there has not been an up market, and the Board should examine the managers performance in both down and up cycles. Mr. Rosen suggested that the Board retain managers who are successful in both bear and bull markets. Mr. Bailey noted that most management firms have not been in existence for two market cycles.

Mr. McDonald moved to accept the Equity Manager Committee report. The motion passed unanimously.

FIXED INCOME COMMITTEE

Mr. Norstrem reported that the Fixed Income Committee had reviewed the guidelines for monitoring equity managers, and requested that staff make changes that apply specifically to fixed income managers. The guidelines will be reviewed at the next meeting.

Mr. McDonald moved approval of the Fixed Income report. The motion passed unanimously.

ALTERNATIVE INVESTMENT COMMITTEE

Mr. Gudorf presented the report of the Alternative Investments Committee. He stated that the committee recommended against investment in specific transactions or direct deals. Mr. Gudorf discussed the difficulty of evaluating investment performance of the managers, particularly in venture capital and oil and gas in which the failed investments will emerge early and the successes later. He stated the committee will focus on the cash returns for venture capital, real estate, and oil and gas. Mr. Gudorf also stated the committee will meet with the firms the Board has retained and analyze individual investments within their portfolios.

Mr. Gudorf outlined the commitment schedule for each area. He stated that additional real estate commitments would be made by June of 1985, and the committee would look to the staff and Evaluation Associates to screen potential managers. The committee encouraged additional commitments to venture capital due to the present attractive market. Mr. Gudorf stated he does not anticipate additional leveraged buyout commitments. Mr. Gudorf also stated the committee will seek additional resource investments. He noted that the amount already committed to that area has not been drawn down by the investors, and so the Board falls below its target allocation.

Mr. McDonald stated that mortgage-backed fixed income investments may be appropriate for the Post Retirement Fund. He also stated that the Board may want to work with Minnesota corporate pension funds to develop a pooled investment approach to investments in Minnesota.

Mr. Allers moved approval of the Alternative Investment Committee Report. The motion passed unanimously.

In response to a question from Mr. Allers, Mr. Bicker stated that the Fred Alger leveraged buyout of Levitz had not been formally adopted.

Mr. Bicker outlined the escheated property issue on the Board agenda to Council members.

The meeting adjourned at 4:30 P.M.

Respectively submitted,

Howard Bicker

Howard J. Bicker
Executive Director

Tab A

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REVIEW

BASIC RETIREMENT FUNDS

September 30, 1984

MINNESOTA STATE BOARD OF INVESTMENT

BASIC RETIREMENT FUNDS

THIRD QUARTER 1984

Summary

ASSETS

The Basic Retirement Funds rose 6.3% in market value during the third quarter. Impressive performances by both the stock and bond markets ended an unusually long period of protracted weakness in the capital markets. The Basic Funds' investment returns for the quarter more than offset the significant negative net contributions produced by both the "Rule of 85" and the return of public employees' 2% pension contributions. End-of-period market values of the Basic Retirement Funds' assets over the past five and three-quarters years are displayed below:

Calendar Year		Market Value (millions)	Percent Change from Previous Period
1979		$ 1,627	+ 16.5%
1980		1,962	+ 20.6
1981		2,148	+ 9.5
1982		2,806	+ 30.6
1983		3,129	+ 11.5
1984	1Q	3,072	- 1.8
	2Q	3,024	- 1.6
	3Q	3,213	+ 6.3

ASSET MIX

The most significant asset mix change of the third quarter was a reduction in the Basic Retirement Funds' bond component. The primary cause of this shift was the sale of bonds to meet expected cash outflows as a result of the "Rule of 85" and 2% pension contribution returns. The bond weighting also declined due to the bond managers' decisions, in aggregate, to raise cash and lower their bond exposure. Similarly, the Basic Funds' cash equivalents' allocation rose due to the fact that not all bond liquidation proceeds were immediately paid out as well as a result of the bond managers' increased cash positions. The common stock allocation rose due to the strong relative performance of common stocks during the quarter as well as an increase in equity exposure by the active common stock managers.

ASSET MIX

	6/30/84	9/30/84
Common Stocks	56.1%	58.1%
Bonds	27.4	23.9
Cash Equivalents*	10.9	12.0
Alternative Equity Assets	5.6	6.0
	100.0%	100.0%

*Includes cash uncommitted to long-term assets plus cash held by all external managers.

INVESTMENT RETURNS

The total rate of return on the Basic Retirement Funds' investments was 7.9% in the third quarter. The strong performances turned in by both the stock and bond markets were largely responsible for the Basic Funds' positive investment results. On a relative basis, the Basic Funds performed above the median of other tax-exempt funds. Asset segment and total portfolio returns are displayed below.

	Total Rate of Return	
	Third Quarter 1984	Year Ending 9/30/84
Common Stocks	8.8%	- 0.1%
Bonds	8.1	10.1
Cash	2.9	11.1
Alternative Equity Assets	2.0	11.9
Total Fund	7.9	3.8

EQUITY PERFORMANCE

Driven almost entirely by a brief, explosive seven-day rally in early August, the stock market turned in its first positive quarter since the second quarter, 1983. Despite its apparent strength, on average, the market was essentially flat except for the short span of days covering the rally.

The stock market in the third quarter once again proved to be a difficult target for active managers to outperform. Over the last quarter, the market outperformed roughly 70% of all active managers. The Basic Retirement Funds' active equity managers proved no exception. Although several managers produced returns on the third quarter which exceeded the market's, as a group the active managers underperformed the Wilshire 5000. The index fund, as designed, once again closely tracked the Wilshire 5000's performance.

The active managers, on a composite basis, continue their Financial, Technology and Transportation overweightings. They remain underweighted in the Energy and Utilities sectors. During the third quarter, the managers' composite equity exposure increased slightly.

The recent quarter and since-inception investment returns of the Basic Funds' equity managers are presented below.

	Total Portfolio Returns	
	Third Quarter 1984	Since Inception 3/1/83
Fred Alger	8.0%	7.8%
Alliance Capital	6.6	3.3
Beutel Goodman	9.3	20.9
Forstmann Leff	4.6	7.1
Hellman Jordan	9.5	5.0
IDS	10.3	11.0
Investment Advisers	10.7	11.6
Loomis Sayles	5.7	- 7.9
Siebel Capital	6.1	5.1
Herbert R. Smith	3.3	-11.4
Trustee & Investors	9.1	- 3.7
Total - External Active Managers	7.7	4.5
Wilshire Associates - Index Fund	9.3	NA
Wilshire 5000	9.2	16.9

BOND PERFORMANCE

Like the stock market, the bond market turned in a strong third quarter performance. Unlike the stock market, however, the bond market's positive returns were fairly uniform over the quarter, rather than being concentrated in a short interval. The bond market regained much of the ground that it had lost in the first half of 1984. Positive performance was largely concentrated in the long-term maturity end of the market where interest rates fell sharply. Short-term rates, on the other hand, actually rose slightly over the quarter.

The third quarter saw the initial funding of the Basic Retirement Funds' six external bond managers. In aggregate, the managers chose to lower the maturity of their portfolios very soon after the start of the quarter. Many of the issues initially received by the managers as part of their funding were sold off and replaced by bonds which more closely fit the managers' particular strategies.

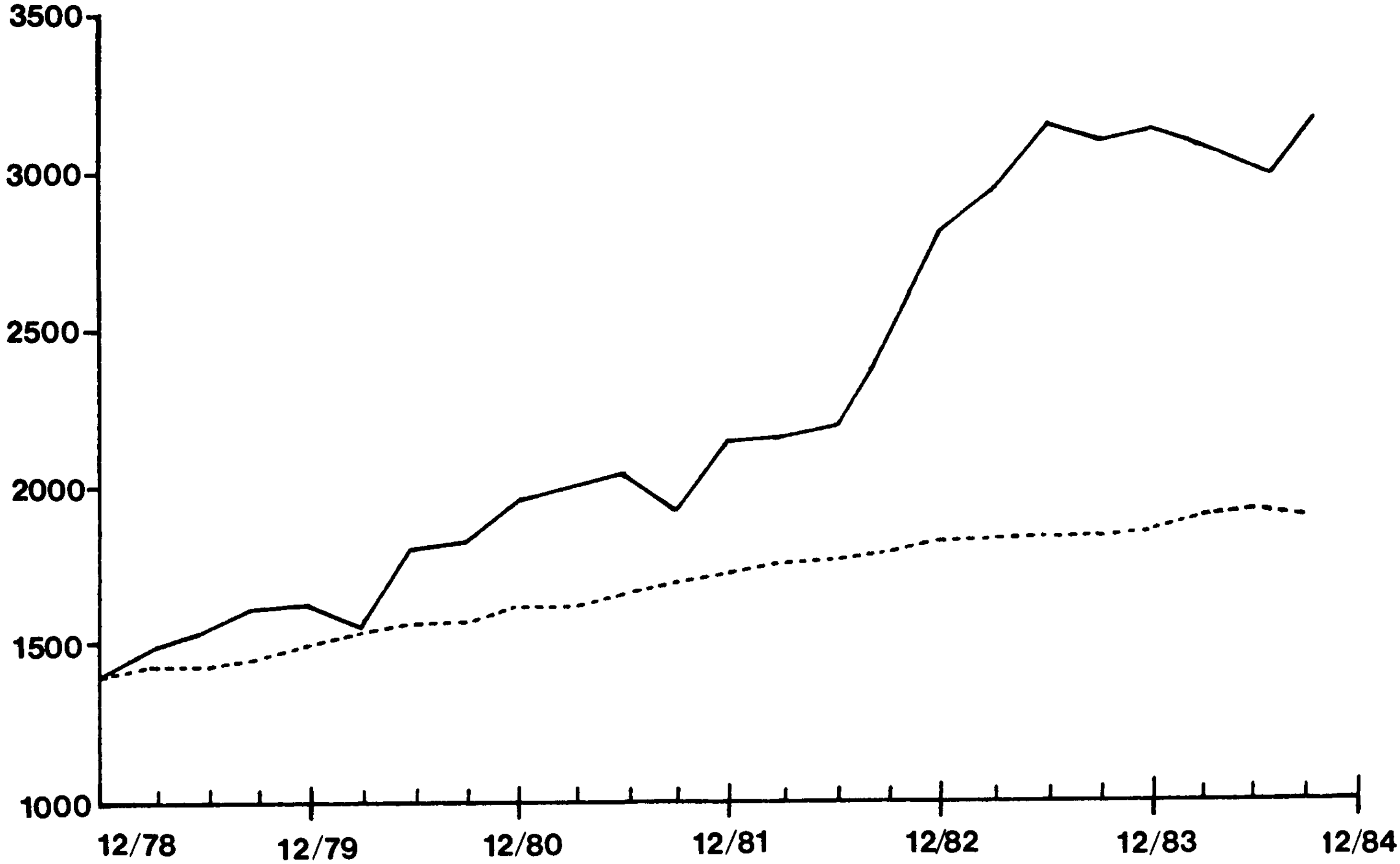
Third quarter results for the bond managers were mixed. Those managers who held above average duration portfolios benefited from the decline in rates to a greater extent than did those managers who held relatively short-lived portfolios. In aggregate, the Basic Funds' managers underperformed the Merrill Lynch Master Bond Index, as did over 60% of all fixed income managers during this period. The most recent quarter's returns for the Basic Funds' external bond managers are displayed below.

Total Portfolio Returns

	Third Quarter 1984
Investment Advisers	11.8%
Lehman Management	8.7
Miller Anderson	6.7
Morgan Stanley	6.3
Norwest Bank Minneapolis	6.9
Western Asset	10.8
Total - External Managers	7.6
Merrill Lynch Master Bond Index	8.7

FIGURE 1

BASIC RETIREMENT FUNDS
ASSET GROWTH



BEGINNING VALUE PLUS NET CONTRIBUTIONS ---

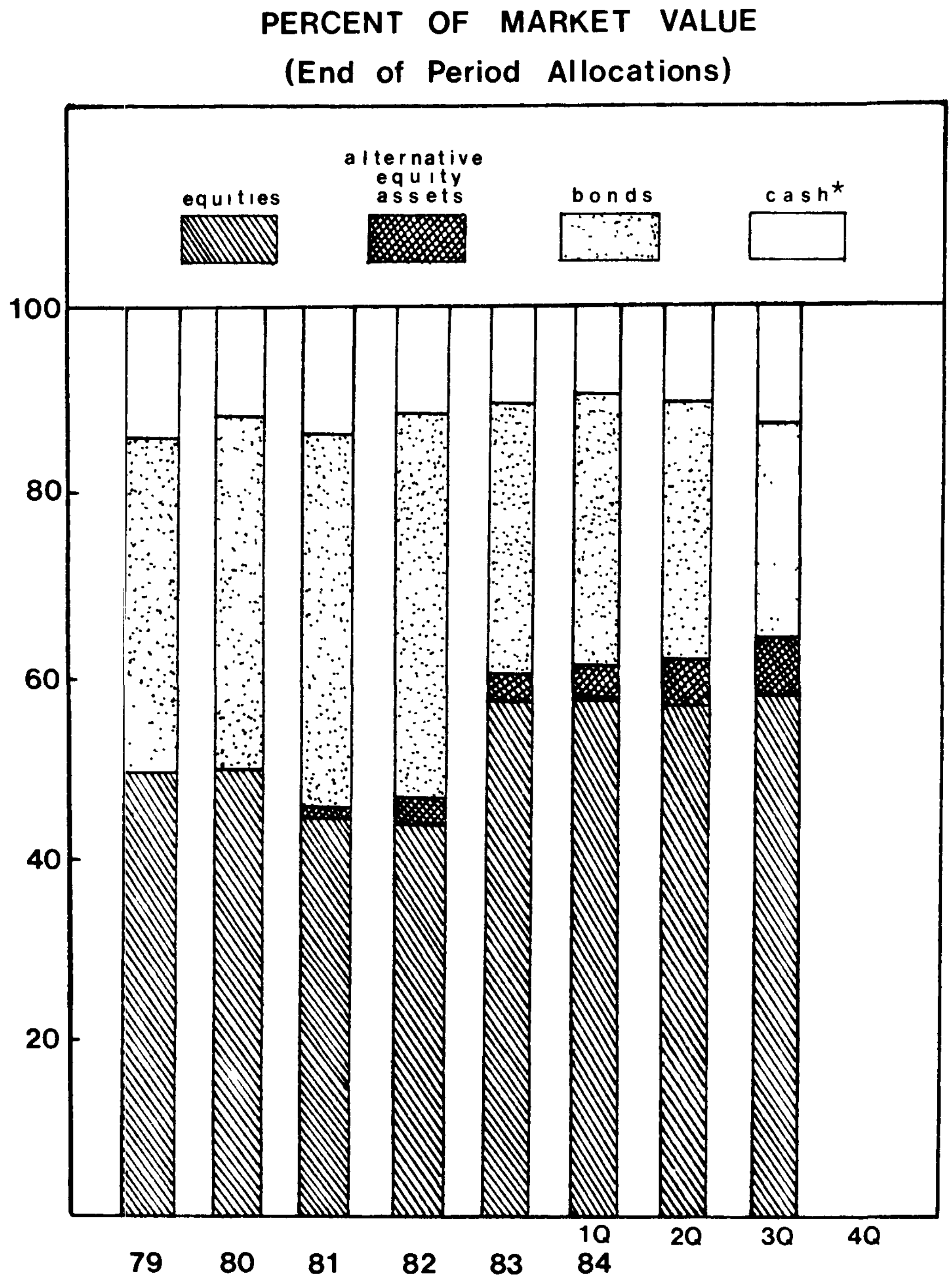
TOTAL PORTFOLIO MARKET VALUE

	PERIOD ENDING					
	12/79	12/80	12/81	12/82	12/83	9/84
BEGINNING VALUE	1397.0	1627.1	1962.0	2148.8	2806.2	3129.0
NET CONTRIBUTIONS	103.5	122.7	114.9	91.0	40.0	- 27.1
INVESTMENT RETURN	126.6	212.2	71.9	566.4	282.8	111.0
ENDING VALUE	1627.1	1962.0	2148.8	2806.2	3129.0	3212.9

(MILLIONS OF DOLLARS)

FIGURE 2

BASIC RETIREMENT FUNDS
ASSET MIX



*Includes cash uncommitted to long-term assets plus cash held by all external managers.

TABLE 1

BASIC RETIREMENT FUNDS

ASSET MIX

MARKET VALUE

(End of Period Allocations)

		Common Stocks		Bonds		Cash*		Real Estate		Resource Funds		Venture Capital	
		$Million	Percent	$Million	Percent	$Million	Percent	$Million	Percent	$Million	Percent	$Million	Percent
1979		799	49.1	604	37.1	224	13.8	-	-	-	-	-	-
1980		964	49.1	767	39.1	231	11.8	-	-	-	-	-	-
1981		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	-	-
1983		1,773	56.7	892	28.5	342	10.9	101	3.2	21	0.7	-	-
1984	1Q	1,745	56.8	891	29.0	305	9.9	106	3.5	21	0.7	4	0.1
	2Q	1,696	56.1	829	27.4	331	10.9	140	4.6	23	0.8	4	0.2
	3Q	1,866	58.1	770	23.9	385	12.0	157	4.9	23	0.7	12	0.4
	4Q												

*Includes cash uncommitted to long-term assets plus cash held by all external managers.

TABLE 2

BASIC RETIREMENT FUNDS

ASSET MIX — ACTUAL vs. POLICY

PERCENT OF MARKET VALUE
(End of Period Allocations)

		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.
983	1Q	0	40	-40	57.9	20	+37.9	38.3	25	+13.3	3.2	10	-6.8	0.6	5	-4.4
	2Q	0	40	-40	61.9	20	+41.9	34.5	25	+ 9.5	3.0	10	-7.0	0.6	5	-4.4
	3Q	0	40	-40	63.4	20	+43.4	32.8	25	+ 7.8	3.2	10	-6.8	0.6	5	-4.4
	4Q	43.5	40	+3.5	18.5	20	- 1.5	34.1	25	+ 9.1	3.2	10	-6.8	0.7	5	-4.3
984	1Q	42.2	40	+2.2	17.8	20	- 2.2	35.7	25	+10.7	3.5	10	-6.5	0.8	5	-4.2
	2Q	41.7	40	+1.7	17.7	20	- 2.3	33.3	25	+ 8.3	5.5	10	-4.5	1.8	5	-3.2
	3Q	42.5	40	+2.5	17.9	20	- 2.1	32.6	25	+ 7.6	5.3	10	-4.7	1.7	5	-3.3
	4Q															

ncludes cash held by external managers.
ncludes cash uncommitted to long-term assets.

FIGURE 3

ASSET ALLOCATION PERSPECTIVE

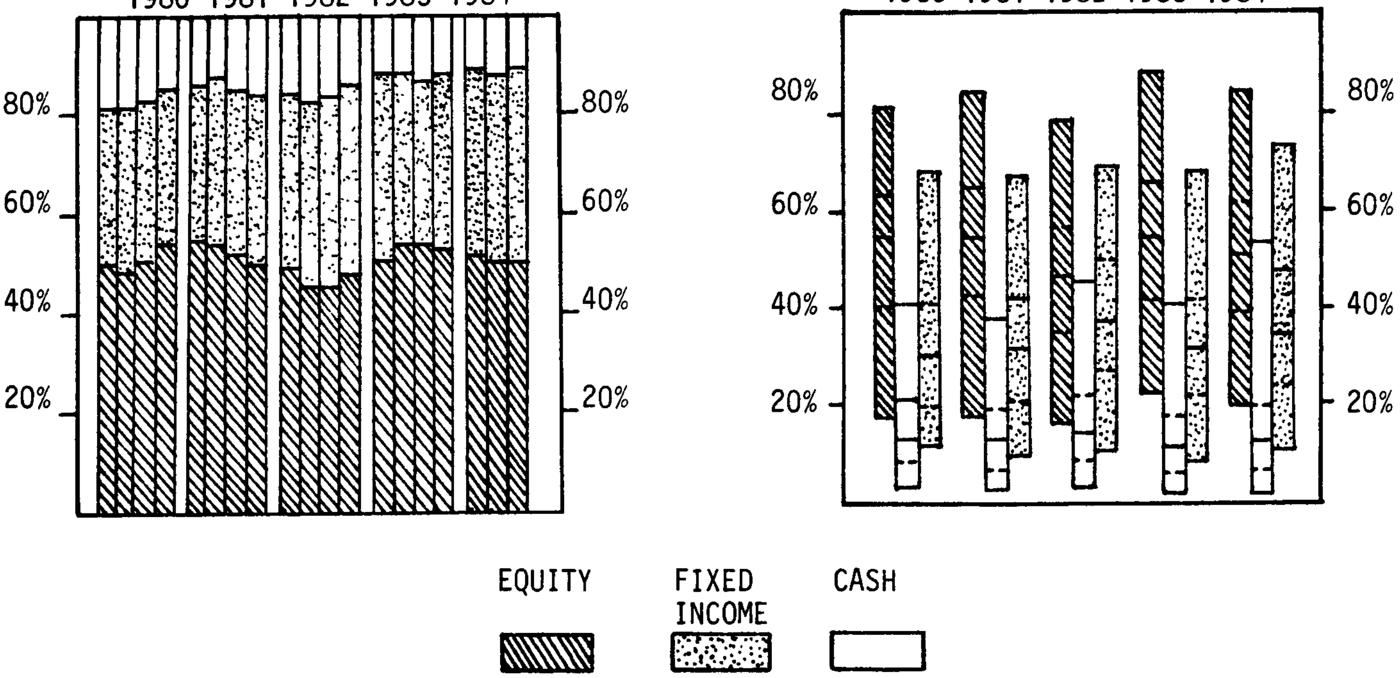
TAX EXEMPT BALANCED PORTFOLIOS

QUARTER-TO-QUARTER
AVERAGE ASSET ALLOCATION

BALANCED PORTFOLIOS

ASSET ALLOCATION
DISTRIBUTION

September



	SEPTEMBER				
PERCENT EQUITY	1980	1981	1982	1983	1984
5TH PERCENTILE	81	84	78	88	84
25TH PERCENTILE	63	64	56	65	61
MEDIAN	54	54	46	54	50
75TH PERCENTILE	40	42	35	42	39
95TH PERCENTILE	17	17	15	21	19
PERCENT CASH EQUIV					
5TH PERCENTILE	41	37	45	40	53
25TH PERCENTILE	20	18	21	17	19
MEDIAN	12	11	13	10	11
75TH PERCENTILE	8	6	8	5	6
95TH PERCENTILE	2	2	2	1	1
PERCENT FIXED INCOME					
5TH PERCENTILE	67	66	68	67	72
25TH PERCENTILE	40	42	49	41	47
MEDIAN	30	31	37	31	34
75TH PERCENTILE	20	20	27	21	24
95TH PERCENTILE	10	8	9	7	9

Source: Trust Universe Comparison Service

FIGURE 4

PERFORMANCE OF CAPITAL MARKETS CUMULATIVE RETURNS

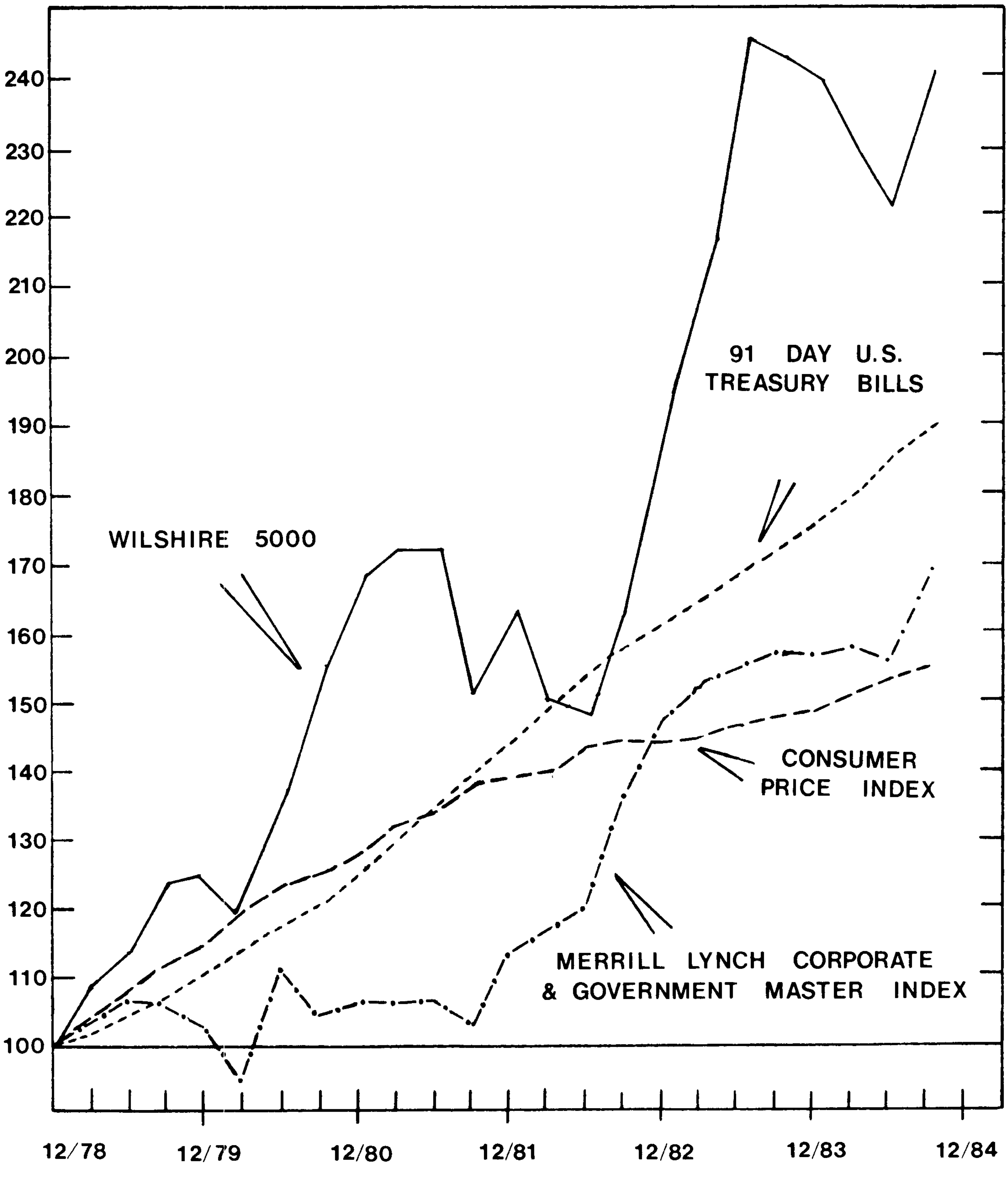


FIGURE 5

BASIC RETIREMENT FUNDS

INVESTMENT RETURNS RELATIVE TO PERFORMANCE STANDARDS

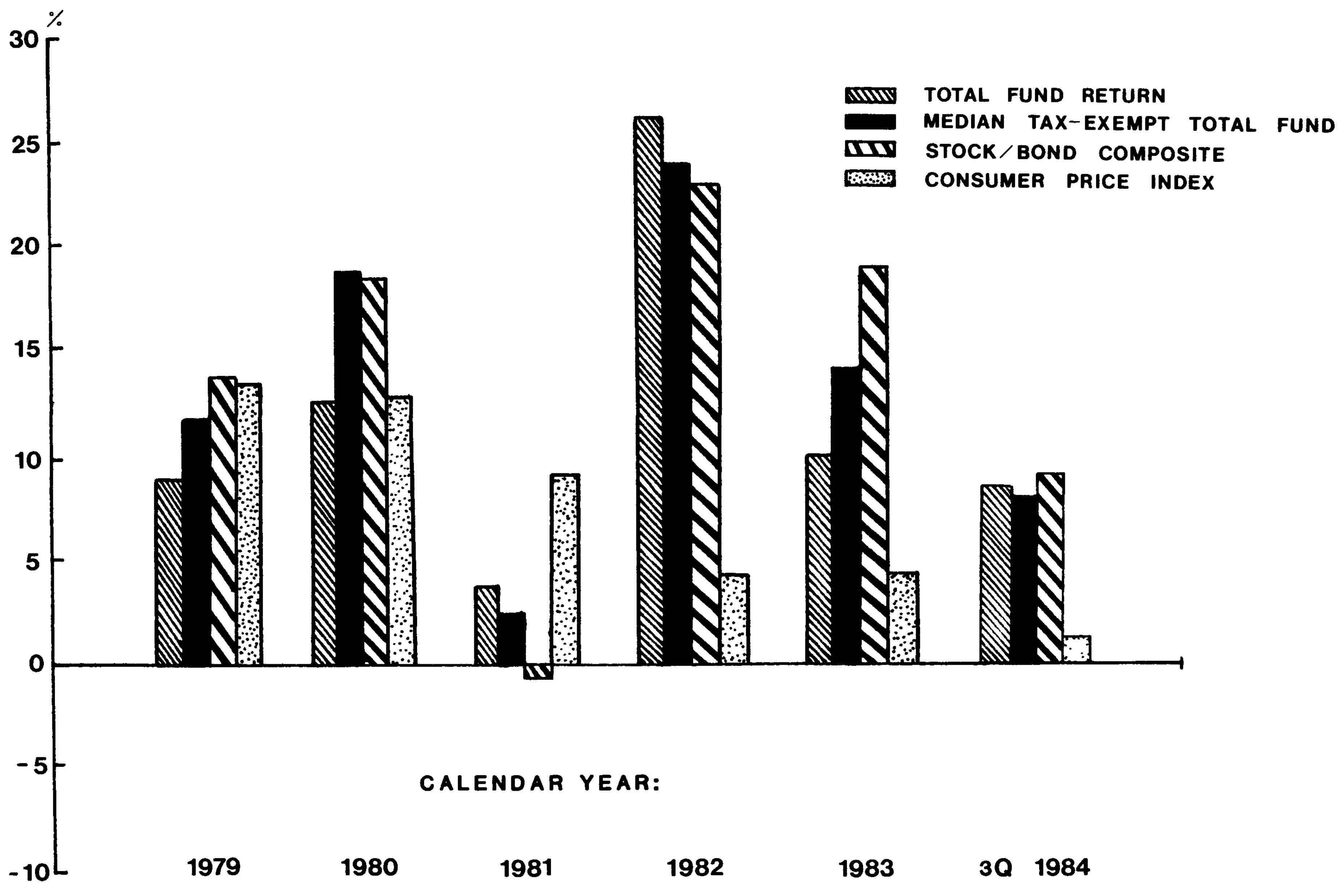


TABLE 3

BASIC RETIREMENT FUNDS

INVESTMENT RETURNS RELATIVE TO PERFORMANCE STANDARDS

Calendar Year		Total Fund Return (exc. alt. assets)	Median Tax-Exempt Fund	Stock/Bond* Composite	Inflation	Total Fund Return (inc. alt. assets)
1979		8.8%	11.6%	13.5	13.3%	8.8%
1980		12.4	18.6	18.3	12.5	12.4
1981		3.5	2.2	-0.6	8.9	3.5
1982		26.4	23.3	22.4	3.8	25.7
1983		10.3	14.1	18.8	3.8	10.1
1984	1Q	-2.5	-1.9	-2.7	1.3	-2.2
	2Q	-2.2	-1.5	-2.5	1.1	-1.8
	3Q	8.3	7.9	9.1	1.2	7.9
	4Q					
1 Year Through 9-30-84		3.6	5.0	3.2	4.2	3.8
3 Years Annualized Through 9-30-84		16.4	16.6	17.7	4.0	16.2
5 Years Annualized Through 9-30-84		10.4	12.5	11.9	7.1	10.2

*50/50 Wilshire 5000/Merrill Lynch Bond Index Composite Through 6-30-81
70/30 Wilshire 5000/Merrill Lynch Bond Index Composite 7-01-81 through 9-30-84

TABLE 4

BASIC RETIREMENT FUNDS

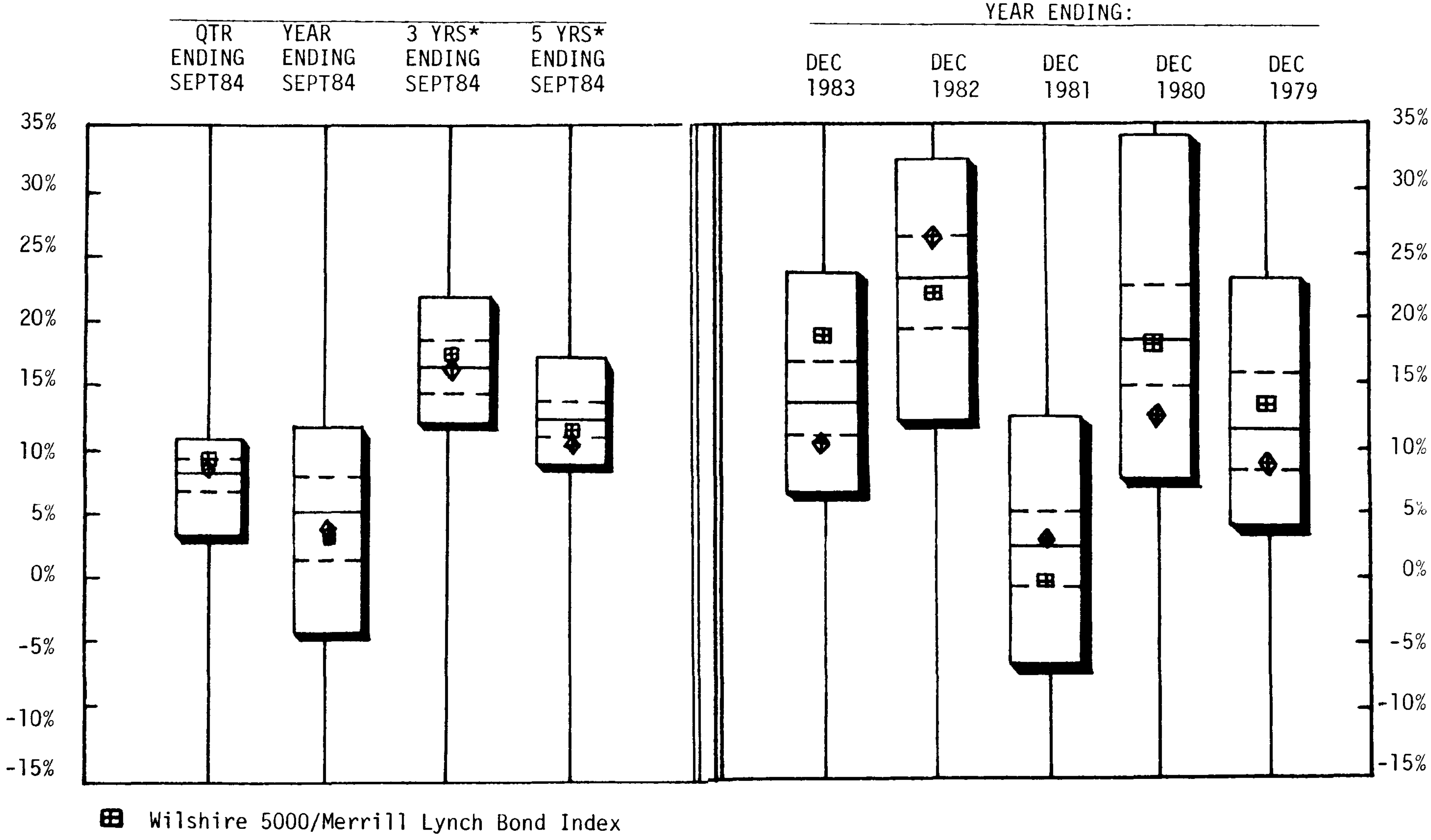
INVESTMENT RETURNS — DETAIL

Calendar Year		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		
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	- 3.6	2.0	7.0	-	3.5
1982		26.4	21.6	18.7	38.1	29.8	11.9	25.7
1983		10.3	12.7	23.5	9.3	7.8	7.4	10.1
1984	1Q	- 2.5	- 5.1	- 4.2	2.2	0.8	4.1	- 2.2
	2Q	- 2.2	- 2.4	- 2.7	- 2.5	- 1.9	2.9	- 1.8
	3Q	8.3	8.8	9.2	8.1	8.7	2.0	7.9
	4Q							
1 Year Through 9-30-84		3.6	- 0.1	0.7	10.1	9.1	11.9	3.8
3 Years Annualized Through 9-30-84		16.4	13.5	17.1	23.3	18.4	NA	16.2
5 Years Annualized Through 9-30-84		10.4	11.7	14.2	9.1	10.0	NA	10.2

FIGURE 6

DISTRIBUTION OF TOTAL PORTFOLIO RETURNS

TAX EXEMPT BALANCED PORTFOLIOS



Source: Trust Universe Comparison Service; Merrill Lynch Capital Markets

TABLE 5

DISTRIBUTION OF TOTAL PORTFOLIO RETURNS

TAX EXEMPT BALANCED PORTFOLIOS

					YEAR ENDING:				
	QTR ENDING SEPT.84	YEAR ENDING SEPT.84	3 YRS* ENDING SEPT.84	5 YRS* ENDING SEPT.84	DEC 1983	DEC 1982	DEC 1981	DEC 1980	DEC 1979
5TH PERCENTILE	11.1	11.8	22.2	17.2	24.1	32.8	13.1	34.6	23.3
25TH PERCENTILE	9.1	7.8	18.5	13.9	17.1	26.8	5.5	22.8	15.9
MEDIAN	7.9	5.0	16.6	12.5	14.1	23.3	2.2	18.6	11.6
75TH PERCENTILE	6.6	1.4	14.9	11.2	11.5	19.7	-0.7	15.0	8.5
95TH PERCENTILE	2.8	-4.6	12.1	8.8	7.4	12.7	-6.2	8.0	4.2
WILSHIRE 5000	9.2	0.7	17.1	14.2	23.5	18.7	-3.6	33.7	25.6
MERRILL LYNCH BOND INDEX	8.7	9.1	18.4	10.0	7.8	29.8	7.0	3.3	2.3
** STOCK/BOND INDEX	9.1	3.2	17.7	11.9	18.8	22.4	-0.6	18.3	13.5
BASIC RETIREMENT FUNDS	8.3	3.6	16.4	10.4	10.3	26.4	3.5	12.4	8.8

*Annualized

** 50/50 Wilshire 5000/Merrill Lynch Bond Index Composite Through 6-30-81
70/30 Wilshire 5000/Merrill Lynch Bond Index Composite 7-01-81 Through 9-30-84

Source: Trust Universe Comparison Service; Merrill Lynch Capital Markets.

TABLE 6

EQUITY MANAGER PERFORMANCE

9/30/84

Total Portfolio Returns

Managers	Last Quarter	Last Four Quarters	Since Inception (3-1-83)
Fred Alger	8.0%	- 4.0%	7.8%
Alliance Capital	6.6	- 2.4	3.3
Beutel Goodman	9.3	9.1	20.9
Forstmann Leff	4.6	- 4.0	7.1
Hellman Jordan	9.5	3.5	5.0
IDS	10.3	2.1	11.0
Investment Advisers	10.7	3.7	11.6
Loomis Sayles	5.7	- 8.2	- 7.9
Siebel Capital	6.1	- 3.6	5.1
Herbert R. Smith	3.3	- 9.5	- 11.4
Trustee & investors	9.1	- 9.2	- 3.7
Total - External Active Managers	7.7	- 1.9	4.5
Wilshire Associates	9.3	NA	NA
Performance Standards			
Wilshire 5000	9.2%	0.7%	16.9%
TUCS Aggressive Manager Median	6.7	- 4.5	NA
Inflation	1.2	4.2	7.3

EQUITY MANAGER PORTFOLIO STATISTICS GLOSSARY

In the following pages, summary descriptions of the individual equity managers' investment philosophy, risk characteristics, and performance data are displayed. Some of the statistics presented are technical in nature. This glossary is designed to aid in understanding the terms that are introduced.

Qtr. Port. Turnover - the manager's total equity asset sales during the quarter divided by the average value of the manager's equity assets over the quarter.

# of Stocks - number of different issues held in the manager's stock portfolio.

Equity Allocation - percent of the manager's total portfolio invested in common and preferred 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 managers' common stock portfolio divided by the weighted average trailing four quarter earnings per share of the manager's common stock portfolio.

Market Volatility - degree to which the returns on the manager's stock 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. This measure does not include the impact of cash holdings on total portfolio volatility.

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 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 indicates no exposure.

Price Variability - risk related to the historical 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.

Earnings 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 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 Aggressive Manager 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 performance comparisons can be made. An assumed .50% management fee has been included to facilitate performance comparisons.

TABLE 7

BASIC RETIREMENT FUNDS

COMPOSITE EQUITY MANAGER DATA

9/30/84

SECTOR WEIGHTINGS

SECTORS	WEIGHTING EXTERNAL MANAGER COMPOSITE	WEIGHTING INDEX FUND	WEIGHTING ALL BASIC MANAGERS COMPOSITE	WEIGHTING WILSHIRE 5000
Capital Goods	3.3%	5.3%	4.7%	5.2%
Consumer Durables	7.5	4.3	5.1	4.3
Consumer Nondurables	25.0	24.9	24.9	24.9
Energy	4.4	12.9	10.6	13.2
Financial	16.0	10.2	11.8	10.3
Materials & Services	10.7	11.5	11.3	11.5
Technology	24.4	15.6	18.0	15.5
Transportation	5.6	2.8	3.5	2.9
Utilities	3.1	12.5	10.0	12.2
	100.0%	100.0%	100.0%	100.0%

QUARTER-END PORTFOLIO STATISTICS

	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Composite External Managers	272	88%	3.3%	12.9	1.24	.89	++	+	0	0	+	0
Index Fund Manager	1099	100%	4.3%	NA	1.11	.95	0	0	0	0	0	0
Composite All Basic Managers	1147	96%	4.0%	NA	1.15	.94	+	0	0	0	0	0

STAFF COMMENTS:

The stock market in the third quarter reversed a series of negative quarterly performances which had stretched back through the third quarter of 1983. As measured by the Wilshire 5000, the stock market generated a 9.2% total rate of return during the third quarter. For the latest twelve months, the Wilshire 5000 has returned a weak 0.7%.

The stock market's third quarter rise essentially was accomplished in the incredibly short span of seven days at the beginning of August. The sharpness and brevity of the rally did not permit portfolio managers to reposition themselves. Managers who held large cash positions found it impossible to reinvest sufficiently fast to participate in the rally in a meaningful way. Once the rally was completed, the market moved in a tight trading range for the rest of the quarter. As a result, the stock market outperformed seven out of ten equity managers in the third quarter. The market has been only slightly less difficult for the last year during which it has outperformed almost six out of ten active equity managers.

Over the last several quarters the stock market has followed a pattern of favoring lower beta, lower P/E, higher yielding, higher capitalization stocks. Thus, aggressive equity managers, who tend to have smaller portions of their portfolios invested in these types of stocks than do most equity managers, have lagged the market to a considerable degree. This situation was again true in the third quarter as the median aggressive manager, as represented by a subsample of the TUCS universe, produced a 6.7% return, well below that of the market.

In aggregate, the Basic Retirement Funds' active managers likewise underperformed the stock market in the third quarter with a combined return of 7.7%. However, their combined performance exceeded that of the median TUCS aggressive manager. IDS Advisory and Investment Advisers were the best performing managers in the most recent quarter, due largely to their utilities and finance positions, respectively. Herbert R. Smith and Forstmann-Leff were the Basic Funds' poorest performing managers.

The active managers' aggregate equity portfolio experienced no dramatic changes during the quarter. Positions in Consumer Durables, Financial and Technology stocks were increased. Holdings in Capital Goods, Consumer Nondurables and Utilities were reduced. The aggregate active equity portfolio's risk characteristics likewise saw little change, although the trend was towards less risk exposure as regards company profitability, size and growth.

The Basic Retirement Funds' passive portfolio again closely tracked the market, with a 9.3% return versus 9.2% for the Wilshire 5000. Since inception, the index fund has provided excellent tracking performance, superior to best-estimate initial objectives.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Fred Alger Management (New York)

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Fred Alger Mgmt	20%	33	94%	2.6%	13.8	1.22	.86	+	++	—	0	0	-
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Financial, Utilities

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Fred Alger Mgmt	8.0%	-4.0%	7.8%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: In third quarter 1984, Fred Alger underperformed the equity market but outperformed samples of other aggressive equity managers (as represented by the SBI manager aggregate and the TUCS subsample median). Total portfolio performance was aided by Alger's positive stock selection in the Consumer Nondurables sector and its policy of generally remaining fully invested. Performance was hindered by the firm's poor selection in and underweighting of the Financial sector, its selection in the Technology sector, and its zero weighting of Utilities. Alger increased its Consumer Nondurables and Transportation holdings as it assumed overweighted positions in each sector and decreased its Capital Goods, Financial, and Technology holdings. The risk associated with earnings success was decreased significantly, while that associated with earnings variability was increased. Portfolio yield was reduced. For the latest year, Alger's performance continues to trail that of the market and the SBI aggregate but exceeds that of the TUCS subsample median.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Alliance Capital (Mpls)	13%	31	88%	2.3%	14.9	1.34	.72	+	++	—	0	+	—
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Consumer Nondurables, Transportation

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Alliance Capital (Mpls)	6.6%	-2.4%	3.3%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Following its strong second quarter performance, Alliance underperformed both the equity market and the SBI manager aggregate in the third quarter. The firm's poor relative performance was attributable primarily to its significant overweighting of, and to a lesser degree its selection in, the Consumer Nondurables sector. Also hampering equity returns were the firm's selection in the Transportation sector and its underweighting of the Utilities. The firm's decrease in exposure to equities, which occurred prior to the explosive August market rally, also hindered total portfolio performance. The firm initiated a position in the Utilities sector and brought its overweighted position in the Technology sector and underweighted position in the Financial sector to market weightings. Risk associated with earnings success was decreased dramatically, that associated with size, growth, and market volatility was reduced modestly and portfolio yield was increased. For the last year, Alliance continues to trail the performance of the equity market. However, its performance exceeds that of the TUCS subsample median and roughly matches that of the SBI aggregate.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Beutel Goodman Capital Management (Houston)

PORTFOLIO MANAGER(S): Robert McFarland
Richard Andrews

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Beutel Goodman	10%	18	93%	4.2%	9.3	1.21	.81	+	+	+	++	0	++
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Financial, Materials & Services

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Beutel Goodman	9.3%	9.1%	20.9%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Beutel Goodman's third quarter performance roughly matched that of the equity market and exceeded that of the SBI manager aggregate and the TUCS subsample median. Contributing positively to Beutel's performance was the firm's substantial overweighting of the Financial sector and its underweighting of the Energy and Consumer Nondurables sectors. Its policy of generally maintaining a fully invested position also contributed to the firm's strong relative performance. The risk composition of the equity portfolio once again remained essentially unchanged. The firm increased its Financial and Materials and Services holdings and decreased its Capital Goods and Consumer Nondurables positions. For the latest year, Beutel Goodman continues to rank as the top performing SBI manager, outperforming the equity market and samples of other aggressive equity managers by wide margins.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Forstmann Leff (New York)

PORTFOLIO MANAGER(S): 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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Forstmann Leff	40%	31	83%	3.5%	10.8	1.26	.86	++	0	+	-	0	+
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

INDUSTRY SECTOR UNDERWEIGHTINGS: Energy, Utilities

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Forstmann Leff	4.6%	-4.0%	7.1%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Forstmann Leff underperformed not only the equity market but also samples of other aggressive equity managers in third quarter '84. The firm's poor relative performance was due largely to its stock selections in the Financial and Technology sectors. Forstmann's sizable cash reserves, which the firm held until late in the quarter, also hindered total portfolio returns. During the quarter, there were several major shifts in industry sector concentrations. Forstmann increased its Financial and Materials and Services holdings significantly, closed out its Utilities positions, and reduced its holdings in the Consumer Nondurables, Technology, and Transportation sectors. Equity risk characteristics changed little. The risk associated with price variability was increased slightly, while that associated with earnings variability, earnings success, and financial leverage was decreased. For the last year, Forstmann Leff continues to trail the performance of the equity market and the SBI aggregate but has roughly matched the returns produced by the TUCS subsample median.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Hellman Jordan Management (Boston)

PORTFOLIO MANAGER(S): Gerald Jordan
Edward Heubner
Martin Hale

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

INVESTMENT PHILOSOPHY: Hellman Jordan employs a modified, macroeconomic investment approach, focusing on 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. While this approach often leads the firm to focus on high growth, high P/E companies, when the firm is negative on the market it will move to high yield, lower growth, lower P/E defensive stocks. In either case, the firm tends to hold larger capitalization issues. Hellman Jordan is an active market timer, willing to make sharp, significant asset mix moves at any point over the market cycle.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Hellman Jordan	10%	44	80%	4.0%	13.7	1.22	.84	+	++	+	—	0	++
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Hellman Jordan	9.5%	3.5%	5.0%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Hellman Jordan's third quarter performance exceeded that of the equity market and samples of other aggressive equity managers. Hellman continued to hold a sizable portion of its non-equity assets in bonds, which performed well during the quarter. Hellman's bond holdings, in particular, outperformed the equity market by a significant margin. The firm's selection in and overweighting of the Consumer Durables sector and its selection in and underweighting of the Consumer Nondurables added positively to Hellman's equity returns. On the other hand, the performance of the firm's equity portfolio was hindered by its Financial, Materials and Services, and Transportation selections. During the quarter, Hellman trimmed its Materials and Services holdings and raised its Technology weighting substantially. The risk associated with earnings success and firm size was decreased slightly and portfolio yield was reduced. During the quarter, Hellman gradually decreased the fixed income component of its portfolio and increased its equity exposure. For the latest year, Hellman Jordan's performance continues to exceed that of the market and samples of other aggressive equity managers.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: IDS Advisory (Minneapolis)

PORTFOLIO MANAGER(S): Mitzi Malevich

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 Oqovides 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.

QUARTER-END PORTFOLIO STATISTICS

								PORTFOLIO RISK ORIENTATION					
	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
IDS Advisory	40%	44	92%	4.6%	12.5	1.08	.89	0	0	0	--	0	0
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
IDS Advisory	10.3%	2.1%	11.0%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: As in the previous quarter, IDS outperformed both the market and samples of other aggressive managers in third quarter '84. Primary contributors to the firm's superior results were its positive stock selection in the Technology and Transportation sectors and its substantial overweighting of the Utilities sector. Selection in the Financial sector detracted from equity portfolio performance. Industry sector emphases within the portfolio remained essentially unchanged. The firm initiated a minor position in the Capital Goods sector and trimmed its holdings in the Consumer Nondurables, Materials and Services, and Utilities sectors. The risk composition of the equity portfolio was altered significantly, however. The risk associated with price variability, earnings variability, and earnings success was increased, while risk associated with both size and financial leverage was decreased. The equity portfolio's P/E ratio was reduced as well. Cash reserves were gradually lowered over the quarter. IDS's relative performance has continued to improve. For the last year, the firm's performance has exceeded that of the market and samples of other aggressive equity managers.

EXTERNAL EQUITY MANAGER INFORMATION
September 31, 1984

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Investment Advisers	21%	39	88%	3.7%	9.9	1.21	.86	+	+	+	—	0	0
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Energy, Utilities

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Investment Advisers	10.7%	3.7%	11.6%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Investment Adviser's third quarter performance was superior to that of the market and samples of other aggressive managers. The firm's heavy exposure to equities, which IAI subsequently reduced late in the quarter, had a positive impact on total portfolio returns. In addition, both the firm's selection in and its weighting of the Financial, Consumer Durables, and Energy sectors contributed to the firm's equity performance. During the quarter, there were several major shifts in industry sector emphases. Investment Advisers reduced its Capital Goods, Consumer Nondurables, and Utilities weightings and added to its Consumer Durables, Financial, Materials and Services, and Transportation positions. Equity risk characteristics changed slightly. Portfolio yield was reduced and risk associated with earnings success, size, and particularly, financial leverage was decreased, while that associated with both price and earnings variability was increased. For the most recent year, IAI's performance exceeds that of the market and samples of other aggressive equity managers by substantial margins.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Loomis Sayles & Co. (Boston)

PORTFOLIO MANAGER(S): Kenneth Heebner

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

INVESTMENT PHILOSOPHY: The Loomis aggressive equity management group employs a modified microeconomic approach. Based upon the firm's economic forecast, the aggressive equity group identifies those industries and companies that are expected to experience significant cyclical or secular earnings gains. The Loomis portfolio tends to focus on stocks with relatively high P/E's and low yields and companies with highly variable, but successful patterns of historical earnings growth. The firm generally maintains a fully invested position, only rarely raising cash to significant levels.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Loomis Sayles	46%	16	88%	1.6%	17.2	1.35	.78	++	++	--	-	+	-
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Technology

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Loomis Sayles	5.7%	-8.2%	-7.9%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Loomis Sayles' relative performance continued to deteriorate as the firm's third quarter returns were again below those of the market and samples of other aggressive managers. The major negative factors hampering portfolio returns were the firm's selection in and overweighting of the Technology sector, its stock selection in the Transportation and Financial sectors, and its zero weighting of the Utilities sector. Several sector emphasis shifts occurred as Loomis closed out its Capital Goods, Materials and Services, and Transportation positions and significantly increased its Technology and Financial holdings. For the second consecutive quarter, the equity portfolio's P/E was increased and portfolio yield was lowered. Exposure to risk from both small capitalization and growth oriented companies was reduced. Risk associated with earnings success and financial leverage was lowered as well. For the most recent year, Loomis' performance continues to trail far behind that of the equity market and samples of other aggressive equity managers.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Siebel Capital Management (San Francisco)

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Siebel Capital	48%	50	74%	2.7%	12.8	1.24	.86	+	0	—	+	+	-
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Siebel Capital	6.1%	-3.6%	5.1%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Siebel's third quarter performance trailed that of the equity market and samples of other aggressive equity managers. Broadly-based poor stock selection and a low exposure to equities were the primary negative factors influencing total portfolio returns. Selections in the Financial, Materials and Services, and Consumer Durables sectors, in particular, detracted from equity portfolio performance. An overweighting of the Consumer Nondurables sector and an underweighting of the Utilities sector also hindered equity returns. During the quarter, Siebel increased its Consumer Durables, Technology, and Transportation holdings, as it assumed overweighted positions in each of the three sectors. In addition, the firm initiated a minor position in the Energy sector, reduced its exposure in the Capital Goods sector, and trimmed its Financial sector position significantly. The equity portfolio's exposure to risk from both small capitalization and financially leveraged companies was reduced, as was the risk associated with earnings success. Portfolio yield was reduced as well. Siebel increased its equity allocation modestly by the quarter's-end. For the latest year, Siebel continues to trail the performance of the market and the SBI manager aggregate but exceeds that of the TUCS subsample median.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Herbert R. Smith (Witchita Falls, TX)

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Herbert R. Smith	39%	52	89%	2.8%	12.0	1.25	.79	++	++	--	+	+	0
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Herbert R. Smith	3.3%	-9.5%	-11.4%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: The third quarter represented another poor quarter for Herbert R. Smith as the firm again underperformed both the equity market and samples of other aggressive managers. Stock selection in the Technology and Financial sectors and, to a lesser degree, in the Materials and Services and Transportation sectors, as well as an underweighting of the Utilities sector, was the primary hindrance to the firm's equity performance. Several shifts in sector emphasis took place as Smith assumed an overweighted position in the Consumer Durables sector and closed out its small Utilities position. The firm, in addition, trimmed its Consumer Nondurables, Energy, and Materials and Services holdings and added to its Technology and Transportation positions. Equity portfolio risk was little changed from the previous quarter's-end. However, portfolio diversification, which had remained at a high level for several consecutive quarters, was reduced to within SBI guidelines. In addition, the risk associated with earnings success and financial leverage was decreased and portfolio yield was reduced. For the last year, Smith's performance continues to lag that of the market and other aggressive equity managers by wide margins.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Trustee & Investors (Boston)

PORTFOLIO MANAGER(S): Mason Klinck
Richard Welch
Peter Schaedel

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Trustee & Investors	24%	37	94%	3.5%	8.3	1.28	.91	++	0	++	--	+	0
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Financial, Technology, Transportation

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Trustee & Investors	9.1%	-9.2%	-3.7%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: After a series of disappointing quarters, Trustee and Investor's relative performance improved as the firm's performance roughly matched that of the equity market and exceeded that of other aggressive managers. Primary contributors to Trustee's positive relative performance were the firm's overweighting of the Financial sector, its underweighting of the Consumer Nondurables and Energy sectors, and its high equity exposure. Hampering performance was the firm's stock selection in the Utilities and Materials and Services sectors. During the quarter, Trustee closed out its Capital Goods position, initiated an overweighted position in the Transportation sector, and cut back its Utilities, Consumer Nondurables and Material and Services holdings. Equity risk characteristics changed little. Diversification, in particular, remained at a high level. However, the equity portfolio's P/E was reduced considerably, and portfolio yield was decreased. Risk associated with financial leverage was reduced as well. For the most recent year, Trustee's performance continues to trail far behind the performance of the market and other aggressive managers.

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REVIEW

- POST RETIREMENT FUND

- SUPPLEMENTAL RETIREMENT FUND
  (Income Share Account)

- SUPPLEMENTAL RETIREMENT FUND
  (Growth Share Account)

- MINNESOTA VARIABLE ANNUITY FUND

- PERMANENT SCHOOL FUND

SEPTEMBER 30, 1984

FIGURE 7

POST RETIREMENT FUND

ASSET MIX
MARKET VALUE

(End of Period Allocations)

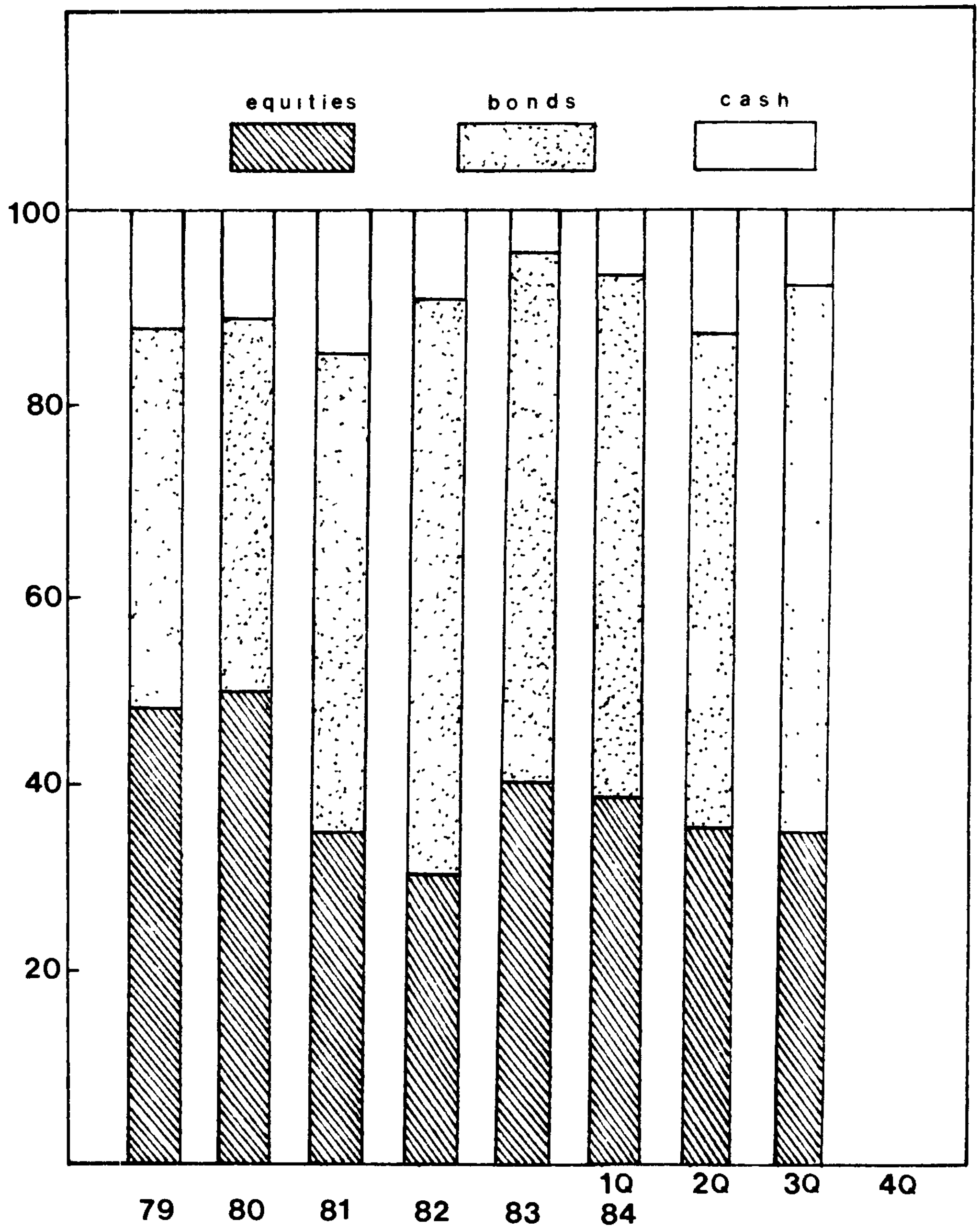


TABLE 8

POST RETIREMENT FUND

ASSET MIX
MARKET VALUE

(End of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash $Million	Cash Percent
1979		457.2	47.3	391.1	40.5	117.4	12.2
1980		568.4	48.9	453.0	39.0	140.3	12.1
1981		376.0	34.2	545.5	49.5	179.4	16.3
1982		465.0	30.5	919.9	60.4	138.1	9.1
1983		730.3	40.5	1,002.1	55.6	69.8	3.9
1984	1Q	691.7	38.2	1,009.0	55.6	112.8	6.2
	2Q	657.0	35.5	951.0	51.4	242.6	13.1
	3Q	741.1	35.3	1,217.7	58.1	137.8	6.6
	4Q						

FIGURE 8

SUPPLEMENTAL RETIREMENT FUND

(Income Share Account)

ASSET MIX
MARKET VALUE

(End of Period Allocations)

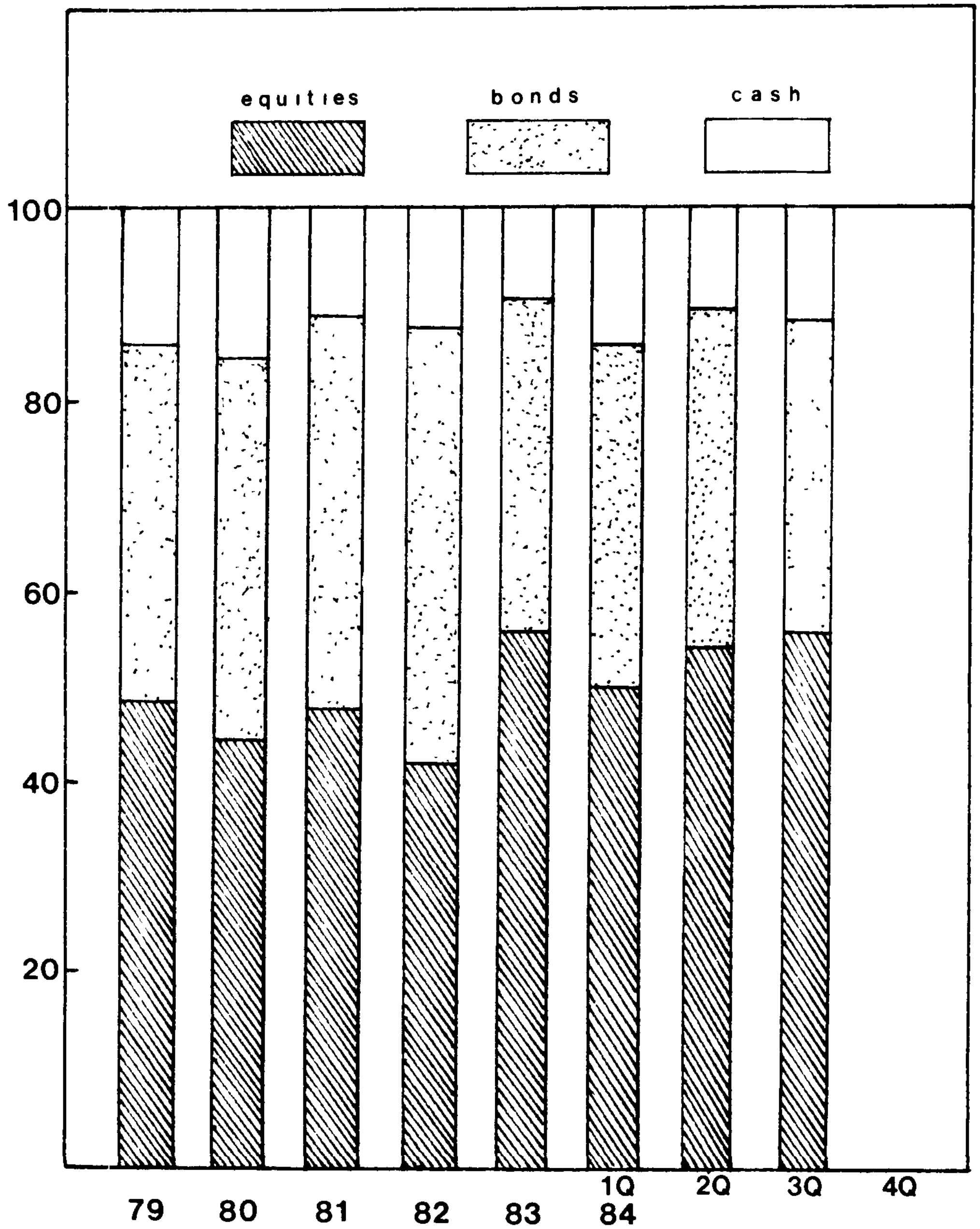


TABLE 9

SUPPLEMENTAL RETIREMENT FUND

(Income Share Account)

ASSET MIX
MARKET VALUE

(End of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash* $Million	Cash* Percent
1979		30.3	48.6	23.5	37.3	8.8	14.1
1980		33.5	44.5	30.5	40.4	11.3	15.1
1981		35.9	47.1	33.4	43.8	7.0	9.1
1982		42.7	42.5	46.2	46.0	11.5	11.5
1983		63.5	56.2	39.6	35.0	9.9	8.8
1984	1Q	57.2	51.1	39.6	35.4	15.1	13.5
	2Q	61.5	55.3	39.6	35.7	10.0	9.0
	3Q	68.9	56.7	40.9	33.4	12.1	9.9
	4Q						

*Includes cash held by the external manager

FIGURE 9

SUPPLEMENTAL RETIREMENT FUND
(Growth Share Account)

ASSET MIX
MARKET VALUE

(End of Period Allocations)

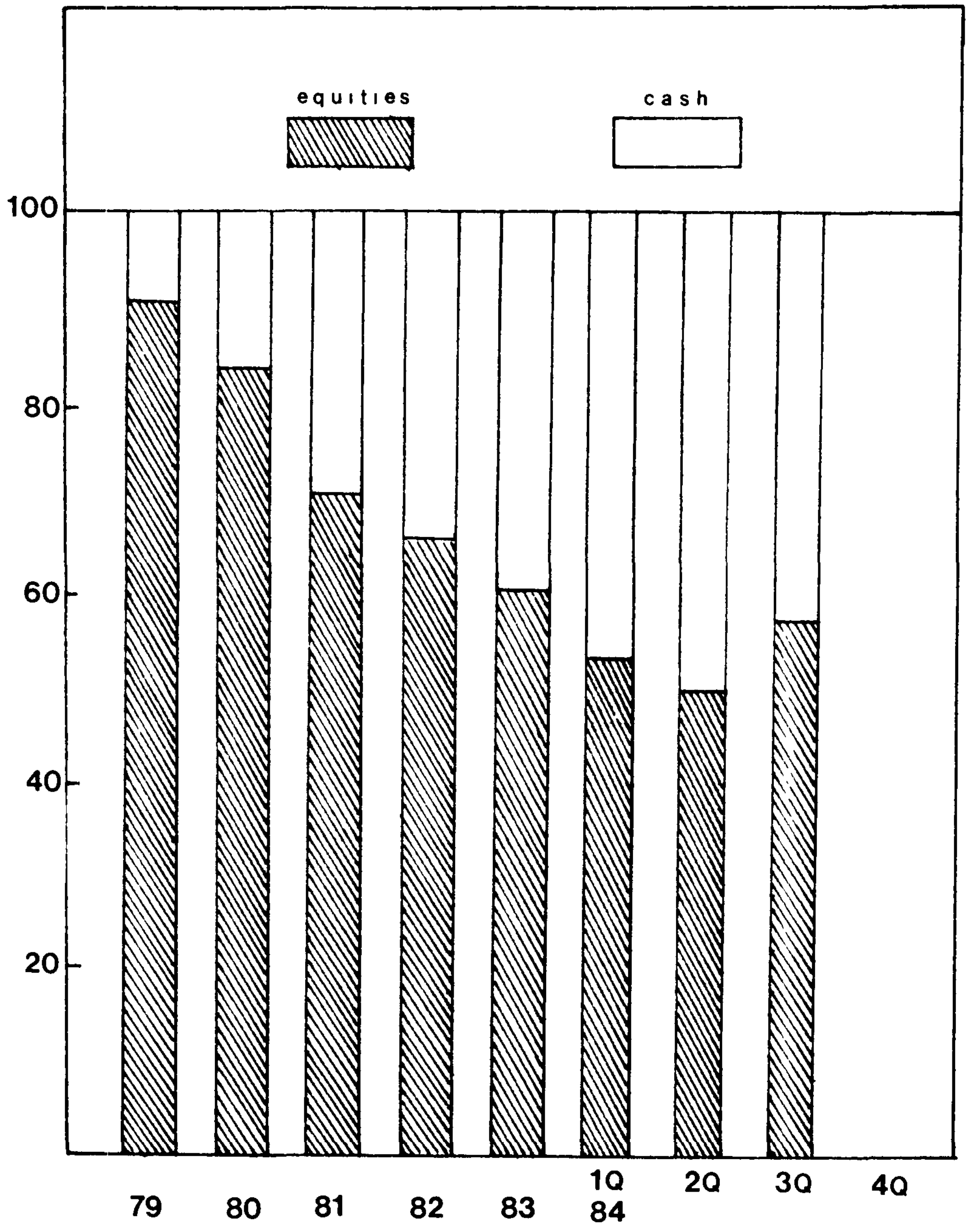


TABLE 10

SUPPLEMENTAL RETIREMENT FUND
(Growth Share Account)

ASSET MIX
MARKET VALUE

(End of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash* $Million	Cash* Percent
1979		25.3	91.1	-----	-----	2.5	8.9
1980		29.8	83.0	-----	-----	6.1	17.0
1981		28.8	71.4	0.5	1.1	11.1	27.4
1982		32.5	65.6	-----	-----	17.0	34.4
1983		33.7	60.3	-----	-----	22.2	39.7
1984	1Q	29.7	54.2	-----	-----	25.1	45.8
	2Q	27.3	50.1	-----	-----	27.2	49.9
	3Q	33.4	57.6	-----	-----	24.6	42.4
	4Q						

*Includes cash held by the external manager

FIGURE 10

MINNESOTA VARIABLE ANNUITY FUND

ASSET MIX
MARKET VALUE

(End of Period Allocations)

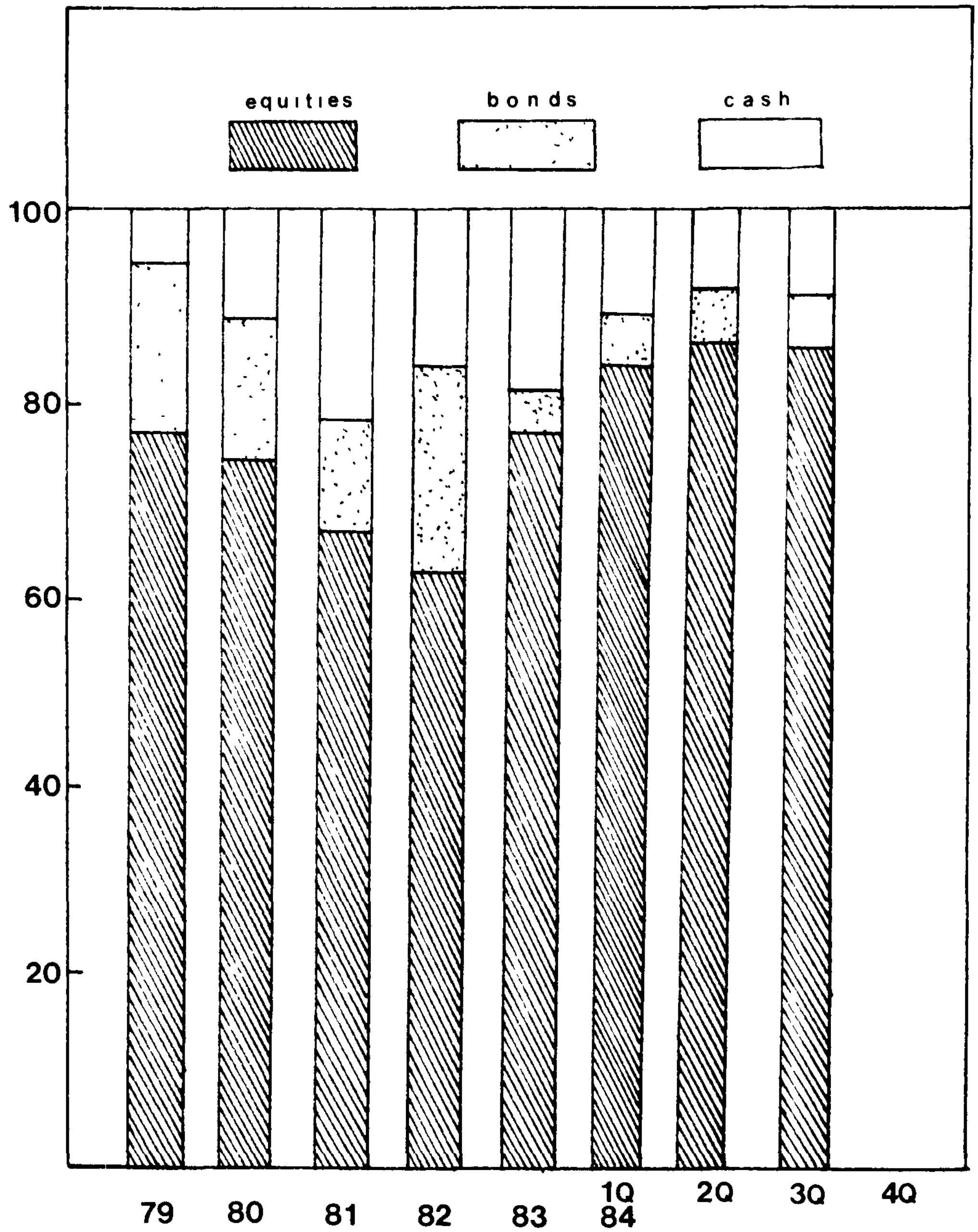


TABLE 11

MINNESOTA VARIABLE ANNUITY FUND

ASSET MIX
MARKET VALUE

(End of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash* $Million	Cash* Percent
1979		48.6	77.1	11.1	17.7	3.3	5.2
1980		55.2	74.1	9.8	13.2	9.4	12.7
1981		49.6	64.8	9.7	12.7	17.2	22.5
1982		56.7	62.0	19.8	21.6	15.0	16.4
1983		78.9	77.0	5.0	4.8	18.7	18.2
1984	1Q	82.0	84.2	5.1	5.2	10.3	10.6
	2Q	82.7	86.5	5.0	5.2	8.0	8.3
	3Q	88.3	85.9	5.2	5.0	9.3	9.1
	4Q						

*Includes cash held by external managers

FIGURE 11

PERMANENT SCHOOL FUND

ASSET MIX
BOOK VALUE

(End of Period Allocations)

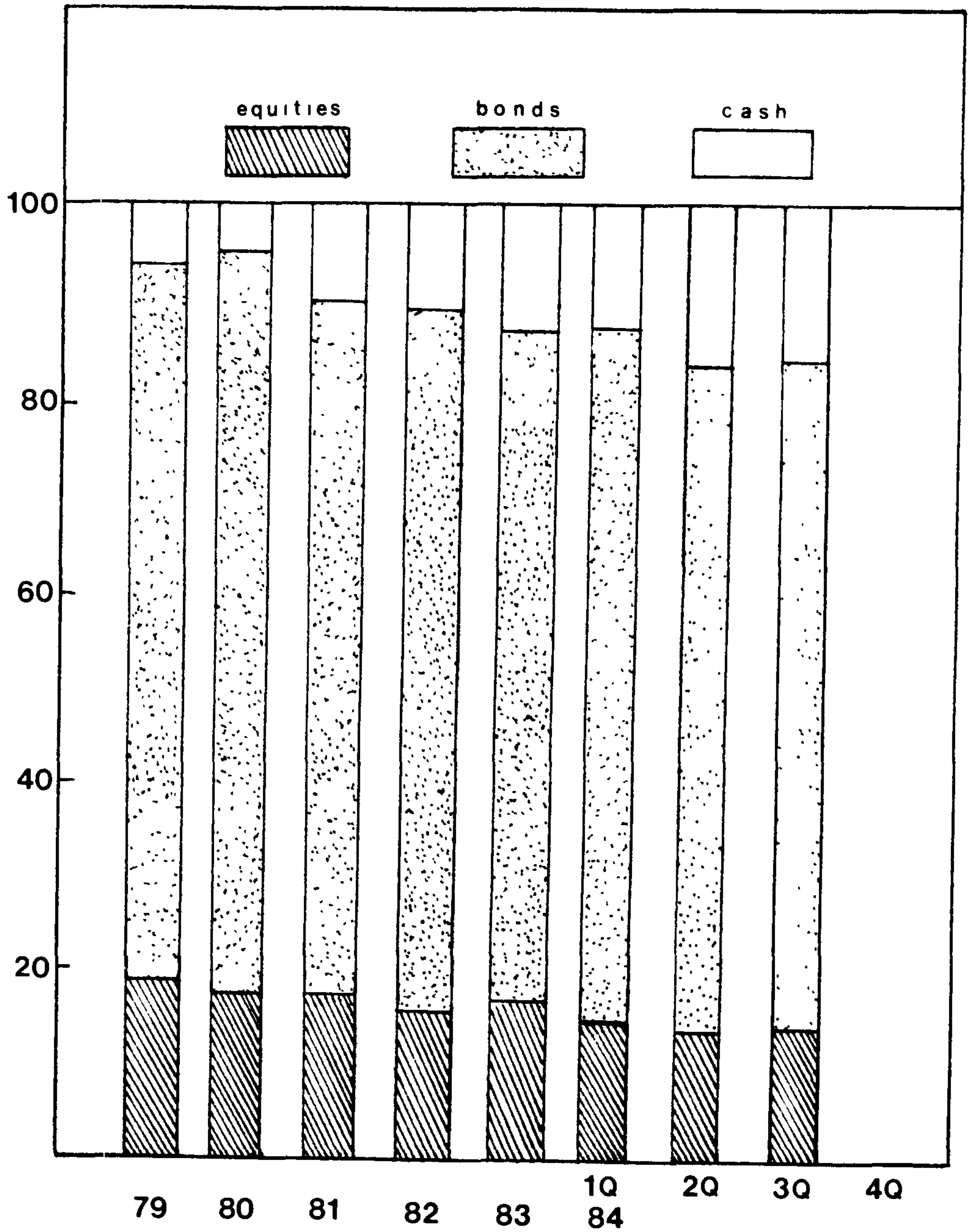


TABLE 12

PERMANENT SCHOOL FUND

ASSET MIX
BOOK VALUE

(End of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash $Million	Cash Percent
1979		50.9	18.7	207.1	76.0	14.3	5.3
1980		49.2	17.2	225.4	78.5	12.2	4.3
1981		52.5	17.4	221.2	73.4	27.8	9.2
1982		48.1	15.6	226.6	73.3	34.2	11.1
1983		53.4	16.6	229.5	71.3	38.8	12.1
1984	1Q	48.8	15.0	237.1	73.0	38.9	12.0
	2Q	48 7	14.6	232.5	69.6	52.8	15.8
	3Q	50.5	14.8	237.7	69.9	52.1	15.3
	4Q						

TABLE 13

EQUITY MANAGER PERFORMANCE

9/30/84

	Total Portfolio Returns		
	Last Quarter	Last 4 Quarters	Since Inception
Income Share Account			
BMI Capital	3.4%	-15.4%	-11.8%
Internal Manager	12.1	4.5	14.6
Growth Share Account			
Waddell & Reed	1.4	-7.3	11.7
Internal Manager	12.1	0.5	10.3
Variable Annuity Fund			
Norwest Bank	4.7	-10.5	5.8
Lieber & Company	7.9	-0.1	10.0
Internal Manager	11.6	-0.3	10.2
Performance Standards			
Wilshire 5000	9.2	0.7	16.9
TUCS Aggressive Manager Median	6.7	-4.5	NA
Inflation	1.2	4.2	7.3

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: BMI Capital (New York)

PORTFOLIO MANAGER(S): James Awad
Frank Houghton

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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION: Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
BMI Capital	29%	20	82%	2.7%	15.2	1.33	.75	++	++	—	++	+	—
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
BMI Capital	3.4%	-15.4%	-11.8%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Despite remaining fully invested for much of the quarter, BMI's relative performance continued to deteriorate as the firm's third quarter performance trailed the performances of the market and other aggressive managers by considerable margins. The firm's poor relative performance was largely a function of its stock selection, primarily in the Consumer Nondurables and Technology sectors. BMI added to its Consumer Nondurables holdings, initiated an overweighted position in the Transportation sector, and reduced its Consumer Durables and particularly, its Materials and Services holdings. The equity risk profile remained essentially unchanged. However, the equity portfolio's P/E was decreased and portfolio yield was reduced. The firm's exposure to equities was lowered to 82% of the portfolio by quarter-end. For the most recent year, BMI's performance continues to trail far behind the performance of the equity market and samples of other aggressive equity managers.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Lieber & Co. (Harrison, NY)

PORTFOLIO MANAGER(S): Nola Falcone
Stephen Lieber

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million
Contribution: 1/1/84 $15.0 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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Lieber & Co.	17%	108	87%	2.6%	11.9	1.31	.80	++	+	-	++	+	--
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

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

INDUSTRY SECTOR UNDERWEIGHTINGS: Capital Goods, Energy, Utilities

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Lieber & Co.	7.9%	-0.1%	10.0%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	-0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Lieber underperformed the equity market in the third quarter but outperformed both the SBI manager aggregate and the TUCS subsample median. Stock selection in the Consumer Nondurables sector and an overweighting of the Financial sector were the primary positive contributors to portfolio performance. On the other hand, poor selection in the Technology, Financial, Consumer Durables, and Materials and Services sectors hampered portfolio returns. Lieber closed out its minor Utilities position, added to its Energy and Financial holdings, and cut back its Consumer Nondurables position. Equity risk characteristics remained largely unchanged, although portfolio yield was reduced slightly. Cash reserves were raised from 5% to 13% of the portfolio at the quarter's-end. For the latest year, Lieber's performance lags that of the equity market but exceeds that of other aggressive managers.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Norwest Bank (Minneapolis)

PORTFOLIO MANAGER(S): Robert Mersky
Paul Von Kuster

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million
Contribution: 5/1/84 $15.0 million

INVESTMENT PHILOSOPHY: Norwest utilizes a modified, microeconmic 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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Norwest Bank	61%	62	97%	1.2%	26.6	1.36	.81	++	++	--	++	+	-
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Nondurables, Technology

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Norwest Bank	4.7%	-10.5%	5.8%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: Norwest's third quarter performance lagged that of the market and samples of other aggressive equity managers. The firm's underperformance was attributable primarily to its poor stock selection in the Technology sector, its selection in and overweighting of the Consumer Nondurables sector and, to a lesser extent, its selection in and substantial underweighting of the Utilities. Norwest's selections in the Materials and Services, Energy, and Financial sectors, on the other hand, aided the firm's performance. During the third quarter, Norwest closed out its Capital Goods position, reduced its Energy and Transportation weightings, and assumed an overweighted position in the Consumer Durables sector. The equity portfolio's P/E was increased dramatically, risk associated with earnings success was decreased, and portfolio yield was lowered. Exposure to equities was increased to 97% of the portfolio by the quarter's-end. For the most recent year, Norwest has underperformed not only the market but also samples of other aggressive equity managers.

EXTERNAL EQUITY MANAGER INFORMATION
September 30, 1984

FIRM NAME: Waddell & Reed Asset Management (Kansas City)

PORTFOLIO MANAGER(S): Henry Herrmann

ACCOUNT HISTORY: Start-up: 3/1/83 $10.0 million
Contribution: 1/1/84 $15.0 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.

QUARTER-END PORTFOLIO STATISTICS

	QTR. PORT. T/O	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Waddell & Reed	76%	48	35%	3.1%	12.1	1.27	.76	+	++	--	+	+	-
SBI MGRS (Avg.)	33	42	84	3.0	13.4	1.26	.82	+	+	-	0	+	0
TUCS MEDIAN	NA	NA	87	NA	NA	1.27	.80	+	+	+	++	+	0

INDUSTRY SECTOR OVERWEIGHTINGS: Consumer Durables, Financial, Technology

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

PERFORMANCE

	LATEST QUARTER	LAST FOUR QUARTERS	SINCE INCEPTION
Waddell & Reed	1.4%	-7.3%	11.7%
SBI MGR AGGREGATE	7.2	-2.5	4.3
TUCS MEDIAN	6.7	-4.5	NA
WILSHIRE 5000	9.2	0.7	16.9
CPI (Inflation)	1.2	4.2	7.3

STAFF COMMENTS: In the third quarter, Waddell and Reed significantly underperformed the equity market and samples of other aggressive managers. Waddell's weak relative performance was attributable to its sizable cash reserves and its poor stock selection in the Transportation, Finance, and Consumer Nondurables sectors. During the quarter, there were a number of major shifts in industry sector weightings. As Waddell increased its equity exposure to 35% of the portfolio by quarter's-end, the firm initiated positions in the Capital Goods, Energy, Materials and Services, and Utilities sectors. In addition, Waddell assumed an overweighted position in the Technology sector and reduced its Consumer Durables and Transportation holdings substantially. The aggressiveness of the equity portfolio was decreased over the quarter. Diversification was increased, market volatility was reduced, and the risk associated with earnings success was decreased substantially. For the latest year, Waddell and Reed's performance trails far behind the market and other aggressive equity managers.

TABLE 14

MINNESOTA STATE BOARD OF INVESTMENT PERFORMANCE REVIEW

YEAR ENDING SEPTEMBER 30, 1984

PERFORMANCE GOALS
YEAR ENDING September 30, 1984

FUND PERFORMANCE FOR YEAR ENDING September 30, 1984

			POST	INCOME*	GROWTH*	VARIABLE*	PERM. SCHOOL
STOCKS	- Wilshire 5000 - S & P 500	0.7% 4.8	3.3%	1.6%	-8.1%	-3.4%	5.8%
BONDS	- Merrill Lynch	9.1	11.3	12.0	-	14.5	11.3
TOTAL FUNDS							
POST	- 40% stock/60% bond:	5.8	7.8				
INCOME	- 50% stock/50% bond:	4.9		6.7			
GROWTH	-100% stock/0% bond:	0.7			0.3		
VARIABLE	-100% stock/0% bond:	0.7				-0.3	
P. SCHOOL	- 20% stock/80% bond:	7.4					9.8
INCOME							
Actuarial requirement		5.0	9.1	8.0			9.0
Post benefit increase at least 50% of inflation rate: (Effective January 1985)		2.1	6.9				

*Includes performance of both internal and external managers.

APPENDIX

This appendix contains historical portfolio data pertaining to the SBI's external equity managers from the inception of the SBI's accounts with these managers. Any revisions of portfolio data reported in previous quarterly reviews are contained in this appendix.

TABLE A1

EXTERNAL EQUITY MANAGERS

PORTFOLIO STATISTICS HISTORICAL SUMMARY

									PORTFOLIO RISK ORIENTATION					
MANAGER NAME	DATE	QTR. PORT. T/O	# OF STKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVRSFN	Price Var.	Earn. Var.	Earn. Succ.	Size	Growth	Fin. Lever.
AVG. EXT. MANAGERS	9/30/84	33	42	84	3.00	13.4	1.26	0.82	+	+	-	0	+	0
AVG. EXT. MANAGERS	6/30/84	27	41	81	3.21	13.5	1.29	0.81	+	+	+	+	+	0
AVG. EXT. MANAGERS	3/31/84	25	41	83	3.05	13.5	1.25	0.82	+	+	0	+	+	0
AVG. EXT. MANAGERS	12/31/83	36	34	84	2.79	16.2	1.23	0.80	+	+	0	+	0	0
AVG. EXT. MANAGERS	9/30/83	32	32	85	2.48	19.4	1.29	0.82	+	+	0	+	+	0
AVG. EXT. MANAGERS	6/30/83	27	32	85	2.44	16.7	1.29	0.81	+	0	-	0	+	+
AVG. EXT. MANAGERS	3/31/83	NA	26	67	2.78	15.0	1.26	0.83	+	+	-	0	+	0
FRED ALGER	9/30/84	20	33	94	2.57	13.8	1.22	0.86	+	++	--	0	0	-
FRED ALGER	6/30/84	16	32	93	2.92	13.1	1.22	0.86	+	+	0	0	-	0
FRED ALGER	3/31/84	19	33	91	2.82	14.8	1.19	0.86	+	+	+	0	0	0
FRED ALGER	12/31/83	23	32	95	2.64	15.9	1.18	0.88	+	++	-	0	0	0
FRED ALGER	9/30/83	27	32	91	2.63	17.5	1.24	0.88	+	++	0	0	0	0
FRED ALGER	6/30/83	8	35	94	2.10	18.7	1.33	0.88	++	++	--	+	+	++
FRED ALGER	3/31/83	NA	35	89	2.31	17.1	1.29	0.87	++	++	--	+	+	+
ALLIANCE CAPITAL	9/30/84	13	31	88	2.30	14.9	1.34	0.72	+	++	--	0	+	--
ALLIANCE CAPITAL	6/30/84	8	32	92	1.84	15.4	1.39	0.73	+	+	++	+	++	--
ALLIANCE CAPITAL	3/31/84	12	32	92	1.75	15.4	1.38	0.72	+	+	0	+	++	--
ALLIANCE CAPITAL	12/31/83	14	33	92	1.47	19.7	1.37	0.72	+	++	-	0	++	-
ALLIANCE CAPITAL	9/30/83	22	27	87	1.55	20.4	1.41	0.75	+	++	-	+	+	-
ALLIANCE CAPITAL	6/30/83	17	30	91	1.72	20.9	1.35	0.77	+	++	--	0	+	0
ALLIANCE CAPITAL	3/31/83	NA	30	84	1.68	20.3	1.40	0.81	++	++	--	+	++	-
BEUTEL GOODMAN	9/30/84	10	18	93	4.15	9.3	1.21	0.81	+	+	+	++	0	++
BEUTEL GOODMAN	6/30/84	11	18	92	4.14	14.9	1.18	0.79	0	+	0	++	0	++
BEUTEL GOODMAN	3/31/84	12	20	98	3.84	11.0	1.16	0.79	+	+	+	++	0	++
BEUTEL GOODMAN	12/31/83	15	16	95	3.77	10.3	1.08	0.74	+	+	++	++	0	++
BEUTEL GOODMAN	9/30/83	6	16	99	3.47	10.5	1.14	0.75	+	+	++	++	0	++
BEUTEL GOODMAN	6/30/83	7	12	79	3.29	10.2	1.07	0.75	+	0	-	++	0	++
BEUTEL GOODMAN	3/31/83	NA	6	34	2.98	9.3	1.09	0.71	+	0	++	+	+	++
BMI CAPITAL	9/30/84	29	20	82	2.65	15.2	1.33	0.75	++	++	--	++	+	--
BMI CAPITAL	6/30/84	6	24	99	2.73	18.5	1.33	0.79	++	++	-	++	+	--
BMI CAPITAL	3/31/84	18	24	95	2.67	17.1	1.32	0.80	++	++	0	++	+	--
BMI CAPITAL	12/31/83	14	21	98	2.23	20.4	1.29	0.81	+	++	-	++	+	0
BMI CAPITAL	9/30/83	19	19	99	2.14	19.2	1.34	0.81	+	++	-	++	+	0
BMI CAPITAL	6/30/83	0	20	96	2.26	16.6	1.31	0.80	+	0	--	++	+	0
BMI CAPITAL	3/31/83	NA	13	53	2.35	13.7	1.36	0.80	++	++	--	++	++	++

MANAGER NAME	DATE	QTR. PORT. T/O	# OF STKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVRSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Succ.	Size	Growth	Fin. Lever.
FORSTMANN-LEFF	9/30/84	40	31	83	3.53	10.8	1.26	0.86	++	0	+	-	0	+
FORSTMANN-LEFF	6/30/84	31	31	54	3.64	11.4	1.26	0.81	+	+	++	-	0	++
FORSTMANN-LEFF	3/31/84	34	38	71	3.52	12.4	1.17	0.82	0	+	+	-	0	++
FORSTMANN-LEFF	12/31/83	41	39	81	3.23	15.7	1.10	0.70	--	0	++	--	--	--
FORSTMANN-LEFF	9/30/83	46	28	83	2.59	20.7	1.14	0.72	--	0	++	--	0	--
FORSTMANN-LEFF	6/30/83	52	33	93	2.90	15.0	1.08	0.70	--	--	0	--	--	--
FORSTMANN-LEFF	3/31/83	NA	38	85	3.23	14.8	1.09	0.82	0	0	0	-	0	--
HELLMAN JORDAN	9/30/84	10	44	80	4.01	13.7	1.22	0.84	+	++	+	--	0	++
HELLMAN JORDAN	6/30/84	34	37	61	5.09	13.5	1.25	0.87	+	++	++	-	0	++
HELLMAN JORDAN	3/31/84	30	34	58	4.94	12.9	1.16	0.87	+	++	+	--	0	+
HELLMAN JORDAN	12/31/83	43	23	51	5.31	12.5	1.23	0.74	+	++	++	-	--	++
HELLMAN JORDAN	9/30/83	57	20	47	2.89	21.2	1.34	0.77	+	++	++	0	0	++
HELLMAN JORDAN	6/30/83	38	18	56	2.37	16.1	1.30	0.77	+	++	-	--	0	++
HELLMAN JORDAN	3/31/83	NA	14	53	3.18	15.9	1.30	0.72	+	++	--	--	+	+
IDS ADVISORY	9/30/84	40	44	92	4.60	12.5	1.08	0.89	0	0	0	--	0	0
IDS ADVISORY	6/30/84	42	43	87	4.80	13.4	1.04	0.85	--	-	--	0	0	++
IDS ADVISORY	3/31/84	41	39	82	4.31	11.2	1.09	0.80	0	+	--	-	--	0
IDS ADVISORY	12/31/83	45	36	89	3.13	18.8	1.17	0.86	+	++	-	+	+	0
IDS ADVISORY	9/30/83	79	34	86	2.40	25.0	1.24	0.86	+	++	0	+	+	-
IDS ADVISORY	6/30/83	42	49	94	2.19	19.9	1.30	0.81	+	+	--	-	+	-
IDS ADVISORY	3/31/83	NA	48	88	3.17	15.3	1.19	0.84	+	+	-	--	+	-
INVESTMENT ADVISERS	9/30/84	21	39	88	3.74	9.9	1.21	0.86	+	+	+	--	0	0
INVESTMENT ADVISERS	6/30/84	8	43	98	4.19	10.0	1.21	0.89	0	0	++	-	0	++
INVESTMENT ADVISERS	3/31/84	21	40	92	3.60	11.1	1.17	0.89	0	+	++	-	0	++
INVESTMENT ADVISERS	12/31/83	16	39	89	3.11	13.5	1.13	0.86	--	+	++	--	0	0
INVESTMENT ADVISERS	9/30/83	8	41	89	2.92	15.6	1.13	0.87	--	+	++	--	0	0
INVESTMENT ADVISERS	6/30/83	7	37	78	3.19	15.9	1.08	0.89	-	0	0	--	0	0
INVESTMENT ADVISERS	3/31/83	NA	34	47	3.35	13.4	1.06	0.85	0	0	-	--	-	0
LIEBER & COMPANY	9/30/84	17	108	87	2.55	11.9	1.31	0.80	++	+	-	++	+	--
LIEBER & COMPANY	6/30/84	10	117	95	2.66	12.0	1.33	0.81	++	0	0	++	++	--
LIEBER & COMPANY	3/31/84	0	115	93	2.63	12.0	1.37	0.85	+	0	--	++	+	-
LIEBER & COMPANY	12/31/83	9	60	100	2.77	12.9	1.24	0.83	+	0	-	++	+	-
LIEBER & COMPANY	9/30/83	9	56	97	2.83	11.3	1.30	0.83	+	0	-	++	+	-
LIEBER & COMPANY	6/30/83	2	49	92	2.70	14.0	1.26	0.84	+	0	--	++	+	-
LIEBER & COMPANY	3/31/83	NA	24	45	2.94	15.9	1.20	0.85	+	0	-	++	+	--
LOOMIS SAYLES	9/30/84	46	16	88	1.57	17.2	1.35	0.78	++	++	--	-	+	-
LOOMIS SAYLES	6/30/84	25	20	94	1.71	14.4	1.37	0.70	++	++	-	+	++	0
LOOMIS SAYLES	3/31/84	6	22	93	1.93	13.2	1.37	0.66	++	++	--	+	+	+
LOOMIS SAYLES	12/31/83	39	19	81	1.79	18.0	1.38	0.70	++	++	--	+	+	0
LOOMIS SAYLES	9/30/83	60	23	95	1.28	28.8	1.53	0.75	++	++	--	+	++	0
LOOMIS SAYLES	6/30/83	49	19	97	1.21	17.3	1.64	0.75	++	++	--	+	++	++
LOOMIS SAYLES	3/31/83	NA	20	98	1.62	18.2	1.44	0.85	++	++	--	0	++	-

EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
FORSTMANN-LEFF	9/30/84	53,550,733	4.5	4.6	32.5	---	21.5	14.5	18.9	3.6	---
FORSTMANN-LEFF	6/30/84	51,218,131	3.7	3.6	40.2	---	7.0	10.3	24.3	7.2	3.7
FORSTMANN-LEFF	3/31/84	52,083,507	7.6	3.0	37.0	---	6.0	14.5	23.1	6.0	2.8
FORSTMANN-LEFF	12/31/83	55,421,154	5.7	13.6	35.5	5.8	3.9	8.4	18.7	5.3	3.1
FORSTMANN-LEFF	9/30/83	55,775,736	---	14.6	52.3	3.3	4.5	5.3	15.1	4.8	---
FORSTMANN-LEFF	6/30/83	56,471,479	---	12.7	61.4	---	2.7	7.2	11.7	4.3	---
FORSTMANN-LEFF	3/31/83	51,390,160	2.1	4.7	50.7	5.9	4.7	10.3	17.4	4.2	---
HELLMAN JORDAN	9/30/84	52,497,049	1.5	10.7	11.3	0.8	14.0	15.3	29.3	12.0	5.0
HELLMAN JORDAN	6/30/84	47,929,367	1.8	12.4	13.8	1.2	16.4	21.2	12.6	11.1	9.6
HELLMAN JORDAN	3/31/84	49,895,127	---	12.4	19.5	6.4	15.7	15.7	4.3	8.8	17.2
HELLMAN JORDAN	12/31/83	50,182,761	---	14.8	30.0	6.0	16.5	10.4	2.1	3.0	17.2
HELLMAN JORDAN	9/30/83	50,713,576	---	15.0	47.4	---	19.5	3.5	3.3	4.7	6.5
HELLMAN JORDAN	6/30/83	52,402,164	---	3.8	23.3	---	35.9	---	24.8	---	12.2
HELLMAN JORDAN	3/31/83	49,541,253	---	---	15.1	---	33.4	4.6	27.2	---	19.7
INVESTMENT ADVISERS	9/30/84	55,807,710	3.7	7.2	21.5	6.9	21.0	13.1	20.2	5.6	0.8
INVESTMENT ADVISERS	6/30/84	50,388,386	5.5	5.9	26.3	6.2	18.8	9.1	20.6	3.7	3.9
INVESTMENT ADVISERS	3/31/84	51,864,720	5.8	5.4	30.2	8.9	21.5	7.7	15.6	3.9	1.0
INVESTMENT ADVISERS	12/31/83	54,533,402	6.3	6.3	25.0	5.8	21.9	9.7	15.7	6.1	3.2
INVESTMENT ADVISERS	9/30/83	53,819,067	5.8	6.2	30.6	6.0	13.4	9.1	18.3	7.1	3.5
INVESTMENT ADVISERS	6/30/83	54,812,985	6.5	6.6	24.7	11.7	9.7	9.8	16.9	10.3	3.9
INVESTMENT ADVISERS	3/31/83	50,748,987	6.5	9.1	26.0	10.2	7.3	15.0	17.7	5.0	3.2
IDS ADVISORY	9/30/84	55,468,185	3.4	6.6	25.4	7.6	7.9	5.6	19.6	4.6	19.4
IDS ADVISORY	6/30/84	50,278,968	---	5.3	27.6	8.1	6.8	7.6	19.2	4.8	20.6
IDS ADVISORY	3/31/84	50,085,955	4.8	10.1	12.4	9.6	8.7	14.3	15.2	9.5	15.4
IDS ADVISORY	12/31/83	54,006,960	4.9	7.6	18.0	---	8.8	19.0	26.1	6.0	9.6
IDS ADVISORY	9/30/83	54,334,602	---	4.1	24.3	3.4	6.0	19.7	33.8	5.4	3.4
IDS ADVISORY	6/30/83	57,561,715	4.2	12.0	30.5	4.5	4.2	6.7	33.7	4.3	---
IDS ADVISORY	3/31/83	50,689,028	5.4	9.2	30.7	5.4	9.8	6.4	26.3	---	6.6
LIEBER & COMPANY	9/30/84	25,807,665	2.9	3.8	33.0	4.1	22.4	16.8	14.8	2.2	---
LIEBER & COMPANY	6/30/84	23,927,529	2.6	3.3	34.8	3.5	21.1	16.7	15.3	1.8	0.8
LIEBER & COMPANY	3/31/84	24,261,218	3.6	6.4	32.3	4.9	17.3	16.8	16.3	1.8	0.7
LIEBER & COMPANY	12/31/83	11,159,936	7.7	4.5	33.7	3.5	16.7	22.3	6.1	5.6	---
LIEBER & COMPANY	9/30/83	11,016,060	6.5	3.5	31.0	4.7	18.0	25.4	5.4	5.5	---
LIEBER & COMPANY	6/30/83	11,233,248	6.4	5.0	33.3	5.0	16.5	23.9	3.3	6.6	---
LIEBER & COMPANY	3/31/83	10,063,917	8.3	---	23.1	3.9	11.6	41.0	5.6	6.4	---
LOOMIS SAYLES	9/30/84	46,082,328	---	16.0	18.9	---	12.8	---	52.3	---	---
LOOMIS SAYLES	6/30/84	43,613,462	7.6	12.8	16.1	---	4.9	8.8	33.8	16.0	---
LOOMIS SAYLES	3/31/84	45,336,835	11.2	15.1	3.4	---	5.1	12.8	38.2	14.3	---
LOOMIS SAYLES	12/31/83	49,181,570	11.6	16.1	3.3	---	5.2	14.0	33.5	16.4	---
LOOMIS SAYLES	9/30/83	50,182,549	3.5	14.5	13.3	---	10.6	5.2	44.9	8.0	---
LOOMIS SAYLES	6/30/83	55,042,543	3.1	9.0	12.1	---	34.6	10.8	20.4	9.9	---
LOOMIS SAYLES	3/31/83	50,105,254	---	4.8	19.8	---	25.4	9.1	30.7	10.1	---

EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
NORWEST BANK MPLS	9/30/84	25,685,954	---	3.7	38.0	0.6	2.3	11.9	39.7	1.3	2.4
NORWEST BANK MPLS	6/30/84	24,546,941	2.8	5.5	31.2	5.8	1.0	9.3	38.9	4.3	1.3
NORWEST BANK MPLS	3/31/84	10,385,041	3.6	4.4	23.1	8.5	1.1	7.2	45.5	5.4	1.1
NORWEST BANK MPLS	12/31/83	11,215,761	2.5	1.6	25.5	1.2	3.2	6.0	51.8	1.7	6.6
NORWEST BANK MPLS	9/30/83	11,816,270	1.2	---	31.6	3.3	2.0	8.4	46.1	1.4	5.8
NORWEST BANK MPLS	6/30/83	12,126,921	4.8	---	36.4	5.2	8.9	4.8	33.0	2.9	3.3
NORWEST BANK MPLS	3/31/83	10,417,512	7.0	1.8	47.1	4.2	13.5	---	20.1	6.3	---
SIEBEL CAPITAL	9/30/84	52,544,464	3.6	6.2	43.1	1.2	13.3	3.2	24.7	4.8	---
SIEBEL CAPITAL	6/30/84	49,523,376	4.1	4.8	38.8	---	25.9	7.4	17.6	1.4	---
SIEBEL CAPITAL	3/31/84	49,328,007	3.6	1.3	26.4	---	25.8	11.4	29.2	2.4	---
SIEBEL CAPITAL	12/31/83	53,482,144	3.6	1.7	27.9	---	24.0	11.7	24.6	2.6	3.8
SIEBEL CAPITAL	9/30/83	54,520,467	3.5	---	32.7	2.8	25.1	7.2	19.3	5.0	4.4
SIEBEL CAPITAL	6/30/83	56,381,931	2.6	---	36.4	1.7	22.6	6.2	20.1	5.4	5.0
SIEBEL CAPITAL	3/31/83	51,621,595	4.6	---	28.8	---	18.5	5.3	30.0	6.7	6.2
HERBERT R. SMITH	9/30/84	44,289,327	1.4	8.9	20.0	17.9	12.4	3.3	26.7	9.4	---
HERBERT R. SMITH	6/30/84	42,860,060	2.4	0.3	24.4	25.5	10.6	7.5	20.9	7.4	1.1
HERBERT R. SMITH	3/31/84	44,150,474	3.3	0.2	10.1	28.8	16.9	12.8	18.6	9.1	---
HERBERT R. SMITH	12/31/83	46,441,280	4.4	0.4	15.4	10.6	14.5	8.8	30.2	15.8	---
HERBERT R. SMITH	9/30/83	48,910,462	2.2	0.6	12.7	9.4	22.1	15.6	23.2	9.4	4.8
HERBERT R. SMITH	6/30/83	53,176,398	2.0	0.6	15.5	5.2	17.6	13.9	29.4	7.3	6.7
HERBERT R. SMITH	3/31/83	50,198,982	4.8	---	32.6	---	20.5	---	34.7	7.4	---
TRUSTEE & INVESTORS	9/30/84	48,156,379	---	---	6.3	15.1	21.9	8.2	36.3	8.4	3.8
TRUSTEE & INVESTORS	6/30/84	44,119,650	2.5	---	9.9	11.9	17.6	9.4	38.8	---	10.0
TRUSTEE & INVESTORS	3/31/84	47,158,224	2.5	---	10.0	16.0	17.3	10.1	35.3	---	8.7
TRUSTEE & INVESTORS	12/31/83	50,974,369	2.4	---	12.9	9.3	16.7	9.5	41.4	---	7.7
TRUSTEE & INVESTORS	9/30/83	53,062,524	2.5	---	15.6	10.5	17.1	8.8	38.4	---	7.1
TURSTEE & INVESTORS	6/30/83	57,620,180	2.9	3.2	17.0	11.5	18.9	10.3	29.7	---	6.5
TRUSTEE & INVESTORS	3/31/83	50,154,412	3.6	---	12.2	14.4	24.1	10.2	24.1	---	11.4
WADDELL & REED	9/30/84	25,856,251	1.4	13.9	28.0	3.3	14.3	0.5	30.9	1.6	6.1
WADDELL & REED	6/30/84	25,495,564	---	29.0	25.7	---	15.7	---	17.8	11.8	---
WADDELL & REED	3/31/84	25,833,644	5.2	32.1	21.4	---	25.0	---	11.7	4.5	---
WADDELL & REED	12/31/83	11,409,742	12.8	32.4	---	---	33.9	---	20.9	---	---
WADDELL & REED	9/30/83	12,042,511	5.8	13.4	22.5	---	5.1	---	38.2	15.0	---
WADDELL & REED	6/30/83	12,464,478	5.7	13.2	29.2	3.3	5.0	---	31.1	12.5	---
WADDELL & REED	3/31/83	10,013,713	5.5	13.8	15.5	2.5	29.1	---	27.2	6.4	---
WILSHIRE 5000	9/30/84	---	5.2	4.3	24.9	13.2	10.3	11.5	15.5	2.9	12.2
WILSHIRE 5000	6/30/84	---	5.3	4.0	25.7	13.5	9.6	11.7	15.6	2.9	11.7
WILSHIRE 5000	3/31/84	---	5.4	3.9	23.6	16.1	9.8	12.1	15.3	2.9	11.1
WILSHIRE 5000	12/31/83	---	5.5	4.2	24.0	14.5	9.5	12.2	16.3	2.8	11.1
WILSHIRE 5000	9/30/83	---	5.2	4.0	24.3	14.8	9.4	11.8	16.3	2.9	11.3
WILSHIRE 5000	6/30/83	---	5.3	3.9	24.9	15.0	9.3	11.6	16.3	2.9	10.9
WILSHIRE 5000	3/31/83	---	5.1	3.5	25.2	14.6	9.8	12.3	14.9	2.9	11.8

TABLE A2

EXTERNAL EQUITY MANAGERS
SECTOR WEIGHTING HISTORICAL PROFILE

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	EQUITY SECTOR WEIGHTS: CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
AVG. EXT. MANAGERS	9/30/84	---	2.9	7.9	27.9	3.8	14.1	9.6	26.3	4.8	2.7
AVG. EXT. MANAGERS	6/30/84	---	4.0	7.6	28.6	4.2	12.5	10.9	23.4	5.4	3.4
AVG. EXT. MANAGERS	3/31/84	---	5.2	7.6	24.0	5.7	13.2	13.3	22.7	5.1	3.1
AVG. EXT. MANAGERS	12/31/83	---	6.0	6.4	23.5	3.0	12.2	15.1	24.0	6.3	3.5
AVG. EXT. MANAGERS	9/30/83	---	3.6	5.9	28.9	3.1	12.8	13.5	24.2	5.7	2.4
AVG. EXT. MANAGERS	6/30/83	---	3.7	6.1	30.2	3.6	15.1	11.7	21.2	5.8	2.5
AVG. EXT. MANAGERS	3/31/83	---	2.8	4.3	30.6	3.6	15.2	11.4	23.5	4.9	3.8
FRED ALGER	9/30/84	53,908,974	9.3	15.4	33.7	---	0.8	11.4	23.5	6.0	---
FRED ALGER	6/30/84	49,936,760	14.0	8.0	30.7	---	3.8	11.5	29.5	2.6	---
FRED ALGER	3/31/84	51,737,228	13.3	4.3	28.8	---	3.4	18.3	31.9	---	---
FRED ALGER	12/31/83	55,644,200	13.2	6.6	21.7	---	6.4	18.1	33.9	---	---
FRED ALGER	9/30/83	56,169,879	5.7	6.8	26.9	---	8.4	23.3	29.0	---	---
FRED ALGER	6/30/83	58,138,999	4.9	8.5	35.0	3.5	8.2	18.0	21.9	---	---
FRED ALGER	3/31/83	51,420,548	1.4	7.5	37.0	---	9.0	22.0	23.1	---	---
ALLIANCE CAPITAL	9/30/84	51,653,441	---	8.8	49.7	---	9.6	---	19.3	9.2	3.5
ALLIANCE CAPITAL	6/30/84	48,457,996	---	8.1	51.6	---	6.9	---	23.5	9.9	---
ALLIANCE CAPITAL	3/31/84	47,427,119	---	8.3	48.0	2.7	5.6	---	25.1	10.4	---
ALLIANCE CAPITAL	12/31/83	52,725,699	0.8	7.5	45.3	---	6.8	2.4	24.2	13.1	---
ALLIANCE CAPITAL	9/30/83	52,945,082	2.8	5.4	45.9	---	9.2	---	24.6	12.1	---
ALLIANCE CAPITAL	6/30/83	57,538,354	2.2	4.7	42.3	---	8.2	7.5	22.7	12 4	---
ALLIANCE CAPITAL	3/31/83	51,037,067	---	3.5	49.9	2.7	6.7	3.6	23.5	10.0	---
BEUTEL GOODMAN	9/30/84	60,461,938	6.5	---	14.0	---	37.1	35.6	6.8	---	---
BEUTEL GOODMAN	6/30/84	55,295,358	9.3	---	21.1	---	30.4	32.4	6.7	---	---
BEUTEL GOODMAN	3/31/84	56,896,258	8.9	---	18.6	---	27.2	39.3	6.0	---	---
BEUTEL GOODMAN	12/31/83	57,233,781	9.8	---	20.2	---	11.2	46.2	5.4	7.2	---
BEUTEL GOODMAN	9/30/83	55,416,939	8.8	---	22.0	---	13.1	43.5	4.7	8.0	---
BEUTEL GOODMAN	6/30/83	54,835,808	11.0	---	18.5	---	17.4	42.4	---	10.6	---
BEUTEL GOODMAN	3/31/83	50,442,256	---	---	15.7	---	15.4	52.1	---	16.8	---
BMI CAPITAL	9/30/84	8,820,740	4.6	13.4	42.6	---	---	4.1	31.3	3.9	---
BMI CAPITAL	6/30/84	8,533,642	3.2	16.4	37.4	---	---	11.5	31.5	---	---
BMI CAPITAL	3/31/84	8,366,038	4.3	12.7	39.3	---	---	17.8	25.9	---	---
BMI CAPITAL	12/31/83	9,784,767	7.4	12.1	28.4	---	6.6	19.0	26.4	---	---
BMI CAPITAL	9/30/83	10,420,827	7.6	11.2	37.1	---	6.4	18.6	19.2	---	---
BMI CAPITAL	6/30/83	11,285,353	7.9	12.7	44.2	---	9.8	15.9	9.5	---	---
BMI CAPITAL	3/31/83	10,081,983	10.6	8.1	35.3	---	12.3	22.0	11.8	---	---

MANAGER NAME	DATE	QTR. PORT. T/O	# OF STKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVRSFN	PORTFOLIO RISK ORIENTATION Price Var.	Earn. Var.	Earn. Succ.	Size	Growth	Fin. Lever.
NORWEST BANK MPLS	9/30/84	61	62	97	1.18	26.6	1.36	0.81	++	++	--	++	+	-
NORWEST BANK MPLS	6/30/84	26	56	89	1.96	17.4	1.39	0.83	++	++	++	++	++	-
NORWEST BANK MPLS	3/31/84	66	47	87	1.65	19.2	1.28	0.82	++	++	--	++	++	-
NORWEST BANK MPLS	12/31/83	92	41	83	1.88	19.0	1.23	0.87	+	0	-	+	+	--
NORWEST BANK MPLS	9/30/83	56	53	85	2.12	21.4	1.27	0.87	+	0	-	+	+	-
NORWEST BANK MPLS	6/30/83	95	42	80	2.53	16.3	1.23	0.88	+	--	-	+	+	--
NORWEST BANK MPLS	3/31/83	NA	35	83	2.94	14.1	1.20	0.90	+	--	-	+	+	--
SIEBEL CAPITAL	9/30/84	48	50	74	2.73	12.8	1.24	0.86	+	0	--	+	+	-
SIEBEL CAPITAL	6/30/84	47	36	63	3.22	12.3	1.27	0.88	+	--	++	++	+	0
SIEBEL CAPITAL	3/31/84	28	42	78	3.07	11.5	1.25	0.88	+	0	+	+	+	0
SIEBEL CAPITAL	12/31/83	25	37	90	3.14	12.4	1.16	0.89	0	--	0	0	-	++
SIEBEL CAPITAL	9/30/83	26	35	83	3.28	12.6	1.15	0.88	0	0	++	0	0	0
SIEBEL CAPITAL	6/30/83	27	36	91	3.24	13.5	1.17	0.86	+	0	0	0	0	++
SIEBEL CAPITAL	3/31/83	NA	26	80	3.38	13.5	1.15	0.85	+	0	-	--	0	+
HERBERT R. SMITH	9/30/84	39	52	89	2.78	12.0	1.25	0.79	++	++	--	+	+	0
HERBERT R. SMITH	6/30/84	38	67	86	3.29	12.5	1.20	0.92	+	+	-	+	+	--
HERBERT R. SMITH	3/31/84	29	68	84	3.12	13.9	1.22	0.91	+	+	0	+	+	0
HERBERT R. SMITH	12/31/83	46	60	80	2.14	18.9	1.33	0.85	++	++	-	++	+	++
HERBERT R. SMITH	9/30/83	40	46	65	2.68	19.4	1.44	0.87	+	++	-	++	+	++
HERBERT R. SMITH	6/30/83	13	48	65	2.36	18.2	1.46	0.83	++	++	--	++	++	++
HERBERT R. SMITH	3/31/83	NA	18	20	2.74	13.7	1.45	0.77	++	++	--	+	+	++
TRUSTEE & INVESTORS	9/30/84	24	37	94	3.52	8.3	1.28	0.91	++	0	++	--	+	0
TRUSTEE & INVESTORS	6/30/84	15	40	95	3.86	12.8	1.31	0.90	++	+	++	-	+	++
TRUSTEE & INVESTORS	3/31/84	25	41	98	3.30	14.4	1.27	0.89	++	+	++	0	+	++
TRUSTEE & INVESTORS	12/31/83	17	44	99	2.82	18.0	1.25	0.89	+	0	0	+	+	++
TRUSTEE & INVESTORS	9/30/83	9	40	98	3.04	19.8	1.26	0.92	+	0	++	+	+	++
TRUSTEE & INVESTORS	6/30/83	11	34	98	3.09	17.5	1.24	0.93	+	0	-	+	+	+
TRUSTEE & INVESTORS	3/31/83	NA	26	71	3.80	14.4	1.24	0.93	+	0	-	+	0	++
WADDELL & REED	9/30/84	76	48	35	3.11	12.1	1.27	0.76	+	++	--	+	+	-
WADDELL & REED	6/30/84	81	13	21	2.08	10.9	1.56	0.52	++	++	++	++	+	+
WADDELL & REED	3/31/84	35	21	31	2.63	12.6	1.31	0.74	+	++	+	+	0	++
WADDELL & REED	12/31/83	103	10	31	2.45	17.2	1.36	0.72	++	+	--	++	++	--
WADDELL & REED	9/30/83	9	17	73	1.41	27.4	1.41	0.73	++	0	--	++	+	--
WADDELL & REED	6/30/83	38	16	75	1.51	21.0	1.48	0.74	++	0	--	++	++	+
WADDELL & REED	3/31/83	NA	17	79	2.04	14.9	1.50	0.81	++	+	-	++	+	++

Tab B

PORTFOLIO STATISTICS

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
COMPOSITION OF STATE INVESTMENT PORTFOLIOS BY TYPE OF INVESTMENT
MARKET VALUE SEPTEMBER 30, 1984

	CASH AND SHORT TERM SECURITIES	BONDS		STOCKS		ALTERNATIVE ASSETS	TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL		
BASIC RETIREMENT FUNDS:							
TEACHERS RETIREMENT FUND	$ 59,267 4.56%	$ -0-	$364,586 28.09%	$ -0-	$ 784,094 60.40%	$ 90,169 6.95%	$1,298,116 100%
PUBLIC EMPLOYEES RETIRE. FUND	33,628 3.37%	-0-	271,451 27.17%	-0-	622,844 62.35%	71,004 7.11%	998,927 100%
STATE EMPLOYEES RETIRE. FUND	43,078 6.71%	-0-	177,794 27.69%	-0-	376,572 58.65%	44,645 6.95%	642,089 100%
PUBLIC EMP. POLICE & FIRE FUND	19,602 8.78%	-0-	61,405 27.50%	-0-	127,021 56.88%	15,284 6.84%	223,312 100%
HIGHWAY PATROL RETIRE. FUND	3,016 6.60%	-0-	12,067 26.41%	-0-	27,433 60.05%	3,171 6.94%	45,687 100%
JUDGES RETIREMENT FUND	264 8.25%	-0-	781 24.41%	-0-	1,918 59.96%	236 7.38%	3,199 100%
POST RETIREMENT FUND	283,878 13.81%	1,038,452 50.50%	-0-	733,769 35.69%	-0-	-0-	2,056,099 100%
MINNESOTA SUPPLEMENTAL FUNDS:							
INCOME SHARE ACCOUNT	10,478 8.69%	39,794 33.02%	-0-	61,418 50.97%	8,821 7.32%	-0-	120,511 100%
GROWTH SHARE ACCOUNT	7,738 13.36%	-0-	-0-	24,321 41.99%	25,856 44.65%	-0-	57,915 100%
FIXED RETURN ACCOUNT	12,470 22.80%	42,220 77.20%	-0-	-0-	-0-	-0-	54,690 100%
BOND ACCOUNT	1,017 25.36%	2,994 74.64%	-0-	-0-	-0-	-0-	4,011 100%
MINNESOTA VARIABLE ANNUITY	10,082 9.84%	-0-	-0-	40,849 39.88%	51,494 50.28%	-0-	102,425 100%
TOTAL RETIREMENT FUNDS	$ 484,518 8.64%	$1,123,460 20.04%	$888,084 15.84%	$860,357 15.34%	$2,026,053 36.14%	$224,509 4.00%	$5,606,981 100%

PERMANENT SCHOOL FUND	57,020 16.90%	231,627 68.63%	-0-	48,852 14.47%	-0-	-0-	337,499 100%
TREASURERS CASH	846,088 100%	-0-	-0-	-0-	-0-	-0-	846,088 100%
TRANSPORTATION FUNDS	374,500 100%	-0-	-0-	-0-	-0-	-0-	374,500 100%
STATE BUILDING FUNDS	187,904 100%	-0-	-0-	-0-	-0-	-0-	187,904 100%
HOUSING FINANCE AGENCY	153,012 100%	-0-	-0-	-0-	-0-	-0-	153,012 100%
MINNESOTA DEBT SERVICE FUND	101,913 100%	-0-	-0-	-0-	-0-	-0-	101,913 100%
MISCELLANEOUS ACCOUNTS	126,025 100%	-0-	-0-	-0-	-0-	-0-	126,025 100%
TACONITE AREA ENVIR. PROTECTION	11,169 100%	-0-	-0-	-0-	-0-	-0-	11,169 100%
N.E. MINNESOTA PROTECTION	32,314 100%	-0-	-0-	-0-	-0-	-0-	32,314 100%
GRAND TOTAL	$2,374,463 30.77%	$1,419,300 18.39%	$822,924 10.67%	$859,424 11.14%	$2,030,610 26.32%	$209,356 2.71%	$7,716,077 100%

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
NET CASH FLOW AVAILABLE FOR INVESTMENT

For period of
July 1, 1984 - September 30, 1984

Teachers Retirement Fund	$(11,269,802)
Public Employees Retirement Fund	(17,015,801)
State Employees Retirement Fund	(14,422,633)
Public Employees Police and Fire	(4,014,768)
Highway Patrolmans Retirement Fund	(515,433)
Judges Retirement Fund	-0-
Post Retirement Fund	66,769,840
Supplemental Retirement Fund - Income	934,279
Supplemental Retirement Fund - Growth	646,315
Supplemental Retirement Fund - Fixed	43,237
Supplemental Retirement Fund - Bond	855,962
Minnesota Variable Annuity Fund	(36,958)
Total Retirement Funds Net Cash Flow	$ 21,974,238
Permanent School Fund	(1,463,600)
Total Net Cash Flow	$ 20,510,638

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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)
September 1982	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
December	(1)	22	21	47	5.7	37.9	56.4	5262
January 1984	3	(31)	(28)	45	6.8	38.7	54.5	5267
February	(1)	27	26	31	7.0	38.6	54.4	5170
March	5	19	24	11	5.7	39.0	55.3	5119
April	(2)	24	22	36	6.1	36.9	57.0	5145
May	4	43	47	40	6.2	37.5	56.3	4993
June	5	(38)	33	119	8.7	36.5	54.8	5187
July	151	29	180	34	5.8	40.5	53.7	5247
August	(6)	(16)	(22)	24	6.2	38.4	55.4	5598
September	16	(6)	10	14	6.3	39.0	54.7	5652

Tab C

MINNESOTA OPEN APPOINTMENTS ACT

APPLICATION FOR SERVICE ON STATE AGENCY

Name of Agency: Minnesota State Board of Investment
(enter on this line the name of the agency for which applicant seeks appointment, **complete a separate application for each agency**)

Name of applicant: Henry Horn Adams, Jr.

Address of applicant: 18900 Ridgewood Road, Wayzata, Minnesota 55391
(street) (city) (state) (zip)

Phone: Home 612/474-3549 (include area code) **Work** 612/475-7499 (include area code)

County: Hennepin **Legislative district** 43B **Congressional district** 6th

Minnesota Statutes 15.0597, state that the application shall include a "statement that the nominee satisfies any legally prescribed qualifications and any other information the nominating person feels would be helpful to the appointing authority" (May include employment, community service, education)

The undersigned believes that he is fully qualified to serve in the Involved Investment Advisory capacity. He presently serves as a Vice President of Investments, and is secretary to the Cargill, Incorporated, Pension Trusts managing assets in excess of $150,000,000. He was admitted to the practice of law in Minnesota in 1957, and has been duly registered in Minnesota as an attorney since that date. Earlier experience includes Vice President, Secretary and General Counsel-Imperial Financial Services Inc., a mutual fund complex managing approximately $200,000,000 (1963-1978). Prior career experience included Assistant Secretary, Trust Department, First National Bank

(may continue on back)

I, the undersigned hereby state that I satisfy, to the best of my knowledge, all legally prescribed qualifications for the position sought

H. Adams
Signature of applicant

November 15, 1984
Date

If applicant is being nominated by another person or group, the above signature indicates consent to nomination.

Is this application submitted by appointing authority? yes____ no____

Is this application submitted at the suggestion of appointing authority? yes X no____

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
NOV 20 1984
Joan Anderson Growe
Secretary of State

STATISTICAL IDENTIFICATION

The following information is optional and is sought solely for the purpose of compiling the annual report to the governor and legislature on the open appointments process which is required by Minnesota Statutes 15.0597, subd. 7.

Sex
____ Female
X Male

Political Party Preference
____ American Party of Minnesota
____ Democratic-Farmer-Labor Party
X Independent-Republican Party of Minnesota
____ Other, ________ (name of party)
____ None

Race/National Origin
____ American Indian or Alaska Native
____ Asian or Pacific Islander
____ Black
____ Hispanic
X Caucasian
____ Other, ________ (specify)

Your application will not be acknowledged, but you will be notified if the appointing authority wishes to interview you. In any event, your application will be kept for one year or until you are appointed, whichever comes first.

RETURN TO: JOAN ANDERSON GROWE, SECRETARY OF STATE
Open Appointments Section
180 State Office Building
St. Paul, MN. 55155

TELEPHONE: (612) 296-2805

Office Use Only	
AA	Board of Investment
Res	
Date	11/20/84

SC-00133-03 10/79

Qualifications (continued): of Minneapolis, managing personal trust accounts.

MINNESOTA OPEN APPOINTMENTS ACT

APPLICATION FOR SERVICE ON STATE AGENCY

Name of Agency: Minnesota State Board of Investments Advisory Council
(enter on this line the name of the agency for which applicant seeks appointment, complete a separate application for each agency)

Name of applicant: James R Eckmann

Address of applicant: 4328 Lake Drive (street) Robbinsdale (city) MN (state) 55422 (zip)

Phone: Home 612-537-6934 (include area code) Work 612-370-6929 (include area code)

County: Hennepin Legislative district 46B Congressional district 5

Minnesota Statutes 15.0597, state that the application shall include a "statement that the nominee satisfies any legally prescribed qualifications and any other information the nominating person feels would be helpful to the appointing authority" (May include employment, community service, education)

Director, Employee Benefit Investments Dayton Hudson Corporation
Chartered Financial Analyst
MBA - Univ of Minnesota

(may continue on back)

I, the undersigned, hereby state that I satisfy, to the best of my knowledge, all legally prescribed qualifications for the position sought.

James R Eckmann
Signature of applicant

Date 2/1/83

If applicant is being nominated by another person or group, the above signature indicates consent to nomination.

Is this application submitted by appointing authority? yes___ no ✓

Is this application submitted at the suggestion of appointing authority? yes ✓ no___

STATISTICAL IDENTIFICATION

The following information is optional and is sought solely for the purpose of compiling the annual report to the governor and legislature on the open appointments process which is required by Minnesota Statutes 15 0597, subd. 7.

Sex
- ___ Female
- ✓ Male

Political Party Preference
- ___ American Party of Minnesota
- ___ Democratic-Farmer-Labor Party
- ___ Independent-Republican Party of Minnesota
- ___ Other, ________ (name of party)
- ✓ None

Race/National Origin
- ___ American Indian or Alaska Native
- ___ Asian or Pacific Islander
- ___ Black
- ___ Hispanic
- ✓ Caucasian
- ___ Other, ________ (specify)

Your application will not be acknowledged, but you will be notified if the appointing authority wishes to interview you. In any event, your application will be kept for one year or until you are appointed, whichever comes first.

RETURN TO: JOAN ANDERSON GROWE, SECRETARY OF STATE
Open Appointments Section
180 State Office Building
St. Paul, MN. 55155

TELEPHONE: (612) 296-2805

Office Use Only	
AA Bd. of	Investment
Res	
Date FEB.	18 1983

SC-00133-03 10/79

DEPT. OF STATE
FILED
FEB 15 1983
Joan Anderson Growe

Tab D

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

November 20, 1984

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

FROM: Administrative Committee

SUBJECT: Committee Report

The Committee reviewed staff's proposed changes in the SBI's investment authority. The Committee recommends that the Board support these statutory changes during the 1985 legislative session.

The Committee reviewed the draft of the SBI's 1984 annual report. The Committee recommends that the Board approve the annual report in its present form.

The Committee considered a staff proposal to move custody of the assets of the Supplemental Investment Funds and the Minnesota Variable Annuity Fund to State Street Bank and Trust. State Street is the Board's master custodian for the assets of the Basic Retirement Funds. The advantages of this proposal are:

- o A significant reduction in the time required to produce unit values for the Income and Growth Share accounts of the Supplemental Investment Fund. State Street will be able to generate unit values in two business days. The current custody arrangement requires nine business days to produce unit values.

- o An improvement in the efficiency of portfolio accounting and reporting. All assets managed by external managers will be custodied at State Street Bank if the proposed custody change is implemented.

- The ability to lend the equity securities in the affected Funds, thereby producing additional investment income.

State Street has agreed to apply the same custodial fee to assets of the Supplemental Investment Funds and Minnesota Variable Annuity Fund that it currently charges for custody of the Basic Retirement Funds' assets. Given the accurate, timely and cost effective custodial service supplied by State Street to date, the Committee recommends adoption of the proposed custodial move.

The Committee addressed the subject of the accountability of the IAC and staff to the Board. The Committee is of the opinion that it is the IAC's responsibility to make major investment policy recommendations to the SBI. The IAC will use the expertise of its membership, the Board's consultant, and the SBI staff to formulate its recommendations. Any major disagreement within the IAC or between the IAC and staff concerning investment policy will be presented to the SBI for review.

The Committee further believes that it is the staff's responsibility to implement policies adopted by the SBI. The full IAC and its various committees will review and report to the Board on the effectiveness of investment policy implementation by staff.

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

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

FROM: Howard Bicker, Executive Director

SUBJECT: Potential Board Proposals for the 1985 Session

The following proposals contained in the attached bill draft are for your consideration for the Board's legislative program for the 1985 session:

Section 1. Combined Investment Funds

The Combined Investment Funds are pool of assets invested in equities, fixed income securities, real estate, and other asset classes utilized by the Board. The Funds provide increased flexibility and efficiency in investment management operations by taking advantage of the economies of sale and increased investment options available through the pooling of assets. Under current law, only the Basic Retirement Funds are authorized to participate in the Combined Investment Funds. The proposed change would allow the Board to include other accounts, such as the Minnesota Supplemental Investment Fund, in the Combined Investment Fund, thereby further increasing the efficiency of internal operations.

Section 2. Valuation of the Fixed Return Account

Under current law, the value of shares withdrawn by participants in the Fixed Return Account is based on an assumed interest rate set on an annual basis. The proposed change will permit more frequent valuations, as determined by the Board, so that the value of withdrawn assets more accurately reflects the performance of the account.

Section 3. Authorized Investment in Government Obligations

The proposed change clarifies the types of government obligations in which the Board can invest. Although current law authorizes the Board to invest in obligations of federal agencies, there is no generally recognized definition of which entities are agencies of the U.S. government. The proposed language would clarify that the obligations of these organizations are authorized investments for the Board.

Section 4. Authorized Investment in Corporate Obligations

The current law governing authorized corporate obligations includes extensive financial restrictions on the types of obligations eligible for Board investment. The proposed law simplifies these restrictions, while still providing for the safety of the investments.

Section 5. Authorized Investment in Short Term Obligations

The proposed law expands the Board's investment authority to include guaranteed insurance contracts. The securities are issued by insurance companies and guarantee a certain return for a specific period of time. This is a commonly-used investment vehicle that is currently unavailable to the Board.

Section 5 also expands the acceptable collateral for repurchase agreements to include letters of credit.

If approved by the Board, the attached draft language will be submitted to the Revisor's Office. The Revisor's draft will be submitted to the House and Senate leadership for the assignment of authors.

Tab E

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

November 20, 1984

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

FROM: Asset Allocation Committee

SUBJECT: Committee Report

The primary issue considered by the Committee was the preparation of a long-run asset mix recommendation for the Post Retirement Investment Fund. The Committee agreed that the most appropriate strategy was the use of a dedicated bond portfolio, designed to fully finance the Fund's promised benefit payments to retirees. An analysis conducted by staff indicates that slightly more than one-half of the Fund's assets would have to be invested in the dedicated bond portfolio. The Committee recommends that the SBI direct the Fixed Income Manager Committee to interview and retain a vendor to provide the computer software services necessary to implement the dedicated portfolio. Upon completion of the dedicated portfolio a report should be presented to the SBI and IAC detailing the results of the portfolio's construction.

The remainder of the Fund's assets should be targeted to produce earnings that would finance permanent benefit increases. The Committee reviewed several alternative strategies that could be employed for these assets. The Committee recommends that an equal mix of stocks and bonds should be utilized. Income from the bond segment would ensure an annual floor benefit increase. Realized capital gains from the stock segment would allow for additional benefit increases, above the floor increase, in periods of rising stock prices.

The Committee also considered the issue of whether the SBI should attempt to implement market timing strategies for the

Basic Retirement Funds. The Committee's conclusion is that such strategies are neither feasible nor desirable. Responses to Mr. Donhowe's survey of the IAC membership indicated that market timing is not utilized by the corporate pension plans represented on the IAC, nor do these plans generally believe that market timing is a viable investment strategy.

The Committee is of the opinion that market timing can be a high risk investment approach. Short-run changes in asset mix always appear desirable in hindsight. However, the costs of making incorrect shifts can be enormous over the long-run. Further, the Committee believes that the sheer size of the Basic Retirement Funds makes significant market timing moves impractical.

The policy of avoiding short-run asset mix shifts does not preclude longer-term asset allocation realignments. The Committee recommends that the asset mix of the Basic Retirement Funds be reviewed periodically. The purpose of this review would be to assess the effects of changes in the Funds' investment needs and changes in the capital markets environment on the desired long-run asset mix of the Funds.

POST RETIREMENT INVESTMENT FUND

EXECUTIVE SUMMARY

During the past several months, SBI staff has prepared a series of three position papers on the investment objectives and asset mix of the Post Retirement Investment Fund. A summary of the salient points discussed in these papers are presented below.

- o The Post Retirement Investment Fund contains the assets of retired Minnesota public employees covered by seven statewide retirement plans.

- o Eligible employees covered by the statewide retirement plans, upon their retirement, are promised a retirement income based upon their "high five" average salaries and their years of service.

- o Upon the employees' retirement, sums of money sufficient to finance fixed monthly annuities for the retirees are transferred to the Post Retirement Investment Fund.

- o In order to finance these promised benefits, the Fund must "earn" at least 5% on its invested assets. Earnings are defined as interest and dividend income plus realized equity capital gains.

- o If the Fund earns more than 5%, excess earnings are used to finance permanent benefit increases for eligible retirees.

- o The Post Retirement Investment Fund has two objectives:

  1) To produce earnings sufficient to finance benefit increases currently promised retirees.

  2) To produce additional earnings that permit benefits to be increased at a rate which compensates, to some degree, for inflation.

- o The first objective can best be met by constructing a dedicated bond portfolio. A dedicated bond portfolio is a portfolio of high quality bonds that produces cash flows from income and principal payments which match a specific stream of liabilities (in this case, benefit payments).

- o Approximately 55% of the Post Retirement Fund would need to be invested in the dedicated bond portfolio. The remaining assets (the "active" portfolio) can be invested with the sole objective of producing benefit increases for the retirees.

- The specific benefit increase investment strategy employed will depend upon the risk-return preferences of the retirees. Conservative strategies can produce consistent benefit increases at some predictable fraction of the inflation rate. More aggressive strategies can produce on average higher, but more volatile, benefit increase.

- Staff recommends a balanced approach, combining within the active portfolio an equal percentage of bonds and stocks. The income from the bond segment would ensure a base annual benefit increase. Realized capital gains on common stocks would add to this base benefit increase in periods of rising common stock prices.

- Both the dedicated bond portfolio and the active portfolio would be managed internally. The dedicated bond portfolio would be rebalanced at the end of each calendar year based upon the most recent fiscal year's actuarial data. The asset mix of the active portfolio would be reviewed periodically by the Investment Advisory Council.

POST RETIREMENT INVESTMENT FUND

STAFF POSITION PAPER #1

INTRODUCTION

The Post Retirement Investment Fund contains the pension assets of the retired public employees covered by the seven state-wide retirement plans. The assets of the fund are used to finance annuities paid to the retirees. These annuities may be adjusted upwards on the basis of the earnings of the Fund. As of December 31, 1983, the Post Retirement Investment Fund had a value of $1,764,720,366 at cost ($1,802,529,708 at market). As of that date approximately 45,000 eligible retirees were participants in the Fund.

SEPARATION OF ACTIVE AND RETIRED EMPLOYEES ASSETS

The SBI's retirement assets are managed under a structure which is relatively unusual among private and public pension plans. Minnesota's state-wide public retirement plans are contributory defined benefit programs. That is, during their working years, public employees and their employers contribute a percentage of the employees' gross salaries to an accumulation pool. (This pool is known as the Basic Retirement Funds and actually is composed of six of the seven separate state-wide retirement plans.[1]) The employee and employer contributions are designed to fully fund pension payments to be made to the employees upon their retirement. A number of actuarial assumptions factor into the calculations determining the necessary employee/employer contributions to the pension plans. (e.g., expected rate of return on investments, salary growth, mortality rates, etc.[2]) The contributions placed in the Basic Retirement Funds are invested in a diversified portfolio of common stocks, bonds, cash equivalents and alternative equity assets.

It is not the contributory defined benefit retirement plans themselves which make the state-wide retirement systems relatively unusual. Rather, it is the fact that, upon their retirement, public employees' accumulated pension assets are transferred from the Basic Retirement Funds to the Post Retirement Investment Fund. That is, the pension assets of active employees are completely segregated from the pension assets of retired employees.

The amounts which are transferred to the Post Retirement Investment Fund are equivalent to the sums required to pay fixed annuities to the retirees over the actuarially-expected span of their remaining lives, assuming that until all of these transferred funds are paid out the remainder is invested at a specified rate of return. (The transferred sum is called the present value of an annuity and the assumed rate of return is referred to as the discount rate.)

MECHANICS OF BENEFIT INCREASES

The ability of the Post Retirement Investment Fund to maintain current benefit levels and provide for future benefit increases is dependent upon the earnings generated by the Fund. The relevant measure of earnings for the Post Retirement Investment Fund, as specified by statute, includes interest and dividend income as well as realized equity capital gains (or losses).[3] Unrealized equity capital gains (or losses) have no direct impact on the benefits paid out by the Post Retirement Investment Fund. The purpose behind excluding unrealized equity capital gains (or losses) from defined earnings is to smooth out benefit payments by making their calculation largely insensitive to near-term fluctuations in the capital markets.

In order to pay pension benefits, the assets of the Post Retirement Investment Fund must generate earnings to support the liabilities of the Fund. These liabilities are called the required reserves. They represent the present value of the outstanding annuities promised current retirees. Thus, they are equal to the sums transferred from the Basic Retirement Funds as well as the accumulated past required and excess earnings of the Post Retirement Investment Fund, less benefits paid out. For actuarial purposes it is assumed that Post Retirement Investment Fund earnings will be at least 5% of the required reserves annually.[4] By producing this return the Fund can support the currently promised level of benefits. By earning more than this assumed rate of return, the Fund can increase the level of promised benefits under a complex formula described below.

Assume that we are considering the question of benefit increases for the next calender year and that the date is July 1. A fiscal year has just ended.[5] We are now at the beginnning of a new fiscal year and in the middle of the current calender year. The benefit increases that we will be calculating are based on the earnings and required reserves of the recently ended fiscal year, but will not be effective until the beginning of the next calender year. (This delay is necessary to allow the retirement systems to provide the required reserve data to the SBI and to permit the SBI's accounting staff to complete the benefit calculations.) Given this somewhat awkward chronological situtation, the computation of benefit increases is a six-step process.

First, from the most recent fiscal year's total earnings must be subtracted an amount sufficient to meet the actuarially assumed rate of return (5%) discussed above. This is the amount that must be earned in order to support benefit payments at their current levels.

Second, a portion of the earnings of the recently ended fiscal year were credited toward benefit increases paid out in the current calender year. Thus, this amount must be subtracted from earnings available for benefit increases in the upcoming calender year. The reason behind this adjustment is due to the fact that there is a delay of six months between the calculation and payout of benefit increases. As a result, interest at the assumed six-month rate of 2.5% (5% annual rate) was paid on the Fund's available earnings for the current calender year's benefits. In turn, benefits for the next calender year will be increased by another interest adjustment, to be paid from the current fiscal year's earnings (see step five).

Third, earnings must be reduced by an amount to cover the amortization (write-off) of the Deferred Yield Adjustment (DYA) account. Whenever a bond is sold at a loss, the loss is credited to the DYA account and written off against earnings over the remaining life of the bond. Thus, in any given year, the DYA charge against earnings is based upon the underlying amortization of past bond losses.[6]

Fourth, once these three charges have been made against earnings, 5% of the remaining amount is subtracted to amortize another reserve account, the Annuity Stabilization Reserve (ASR). With respect to the ASR, in 1978, certain one-time additional benefits increases were granted to retirees. These benefits were not fully funded (i.e., the Fund's assets were not increased sufficiently to finance expected future benefits). The deficit generated is being retired by annually deducting 5% of earnings from the reserve. The ASR is expected to be liquidated by 1986.

Fifth, following the above subtractions from earnings is an add-back of 2.5% of the remaining earnings. As discussed in step two, this credit reflects the fact that benefits are determined as of the most recent fiscal year-end (June 30) but are not effective until the first of the next calender year (January 1). The 2.5% addition to earnings reflects interest assumed to be earned on these funds for this six-month period. It, in turn, is generated by earnings produced in the current fiscal year.

The sum of these subtractions and additions is referred to as adjusted earnings. It is these earnings that are considered available to finance future benefit increases. The sixth and final step in the benefit calculation entails dividing adjusted earnings by the total required reserves.[7] The resulting ratio, expressed as a percentage, represents the permanent increase in pension benefits to be provided to eligible retirees effective for the next calender year.

In order to clarify the benefit calculation process, an example is provided below. This example is derived from the benefit increase calculation for fiscal year 1983 effective January 1, 1984:

	Total Earnings Fiscal Year 1983	$178,345,133.69
1)	Less: 5% of required reserves	69,699,948.42
2)	Less: Six-month interest adjust. FY 1983	1,890,334.00
3)	Less: Deferred Yield Adjustment	2,314,668.63
4)	Less: 5% Annuity Stabilization Reserve amortization	5,223,509.13
5)	Plus: Six-month interest adjust. FY 1984	2,481,166.84
	Adjusted Earnings	$101,727,840.35

6) $$\frac{\text{Adjusted Earnings}}{\text{Required Reserves}} = \frac{\$101,727,840.35}{\$1,356,537,190.00} = .07499 = 7.499\%$$

Despite the apparent complexity of the benefit increase calculation, it should be clear that at the heart of the computation is the deduction from earnings of the amount necessary to maintain the promised benefit levels (i.e., the 5% assumed rate of return). For all practical purposes, earnings above that amount, ignoring the relatively minor interest adjustments and reserve amortizations, flow to the plan participants in the form of benefit increases.

INVESTMENT OBJECTIVES

The Post Retirement Investment Fund is managed for the benefit of its plan particpants, namely the retired public employees. Because it is these individuals who have the most direct interest in the Fund's performance, their risk-return preferences should be the dominant factor in setting investment policy. The investment horizon of the retirees is considerably shorter than that of the active employees. The average remaining life span of the Fund's participants upon their retirement is fifteen years. Further, the benefits paid by the Fund may represent a significant portion of the retirees' total income. Under these conditions, one can reasonably state that the retirees desire the Post Retirement Investment Fund's investment performance to produce three broad pension benefit outcomes:

1. To generate earnings sufficient to pay benefits at promised levels.
2. To achieve benefit increases which consistently compensate, to some significant degree, the negative impact of inflation on the real (inflation-adjusted) value of their benefits.
3. To generate benefit increases which not only compensate for inflation, but further which add to the real value of their benefits.

From an investment management perspective, the desires of the retirees tend to result in conflicting investment policy objectives for the fund. The attainment of earnings which period-by-period ensure the achievement of the assumed actuarial rate of return and allow benefits to rise at some constant fraction of the inflation rate is not necessarily consistent with the attainment of sizable positive inflation-adjusted growth in benefits. The first two goals call for a conservative, basically risk-free investment strategy. The third goal requires the acceptance of a certain amount of investment risk.

Clearly, a trade-off between secure, consistent, but limited benefit increases and less secure, more volatile, but larger increases, is required. The SBI in the past has set as investment objectives for the Post Retirement Investment Fund the generation of earnings which meet the assumed actuarial return and which produce benefit increases at 50% of the inflation rate. However, specific policies regarding the emphasis to be placed on the attainment of positive inflation-adjusted benefit increases (and the corresponding level of investment risk to be assumed) are yet to be formulated. There can be little doubt that such issues are of considerable interest to the retirees. Benefit increases in the 1981-84 period averaged 6.3% per year, while inflation ran at only a 5.4% annual rate (assuming a 5% annual inflation rate in 1984). Retiree groups have expressed considerable satisfaction with these investment results. On the other hand, one underlying theme that anyone who has contact with the retiree groups immediately perceives is their intense adverse sensitivity toward investment risk. Thus, it is essential that the investment objectives of the retirees be effectively identified and balanced in a satisfactory manner.

As a final note, one must understand that the Post Retirement Investment Fund's objectives should focus on the Fund's investment earnings, and the corresponding ability to produce benefit increases, as defined above, rather than its total rate of return. The total rate of return includes unrealized capital gains which are unavailable to retirees for benefit increases. Despite the fact that the total rate of return is an appropriate target for most investment situations, the rather unusual nature of the Fund makes it a largely irrelevant performance standard. Comparisons of the Fund's total rate of return with various market indices, inflation rates, or universes of other funds may very well mask, from the perspective of the Fund's beneficiaries, either good or poor investment performance.

CASH FLOW PROJECTIONS

Recent Minnesota retirement legislation has dramatically affected the cash flow outlook for the Post Retirement Investment Fund. In the last legislative session, the state legislature passed the "Rule of 85." Public employees covered by the state-wide retirement plans, who have reached the age of 55, can now retire on full benefits if the sum of their age and years of service equals at least 85. This provision currently is legislated to "sunset" on December 31, 1986.

It is expected that the "Rule of 85" will bring about an extraordinarily large number of retirements during fiscal years 1985 and 1986. Concomitently, there will occur a massive cash flow from the Basic Retirement Funds to the Post Retirement Investment Fund. Estimates at this stage are quite tentative, however, over the next two fiscal years an expectation of $400 million in new cash flows to the Post Retirement Investment Fund, due both to normal retirements and retirements under the "Rule of 85," is reasonably conservative. This cash inflow will come on top of the Fund's approximately $200-250 million in annual investment earnings. Thus, by the end of fiscal year 1986, the size of the Fund is likely to grow to somewhere near $3 billion, a 67% increase from its current size. The timing of this growth over this period depends upon the pattern of retirements under the "Rule of 85."

Whether or not the "Rule of 85" is extended past 1986, the increase in the size of the Post Retirement Investment Fund will be a one-time phenonmenon (unless additional extensive new legislation is passed). The employees currently eligible to retire under the "Rule of 85" represent a "bulge in the pipeline." Once they have retired, the growth of the Fund should revert back to its normal pattern. In fact, if the "Rule of 85" is not extended, growth of the Fund five to ten years in the future may decline below the "pre-Rule of 85" rate as employees who normally would have been eligible to retire at that time will already have left public employment.

The projected growth in the Fund over the next two years will present tremendous opportunities for establishing desired investment strategies. The new cash flow will create significantly greater flexibility in designing the Fund's structure than if predominately existing assets had to be altered. Decisions made over the next six months will affect the performance of the Fund for years to come.

FOOTNOTES

1. State legislators and constitutional officers have their own active lives pension plan and become Post Retirement Fund participants upon their retirement. For purposes of discussion we will ignore the separation of the Basic Retirement Funds and the legislators and constituional officers' own active lives plan.

2. Benefits are based on a high five formula, that is, the employee's average salary over his/her five highest salary years. The annual pension paid is computed by multiplying a percentage of the employee's average high five salary (the percentage varies among funds) times the number of years of service that the employee has accumulated.

3. Capital gains on bonds are used to offset the Deferred Yield Adjustment (DYA) charges. At such time that the DYA account reaches a zero balance, capital gains on bonds would be credited toward benefit increases. The DYA account is defined later in the report.

4. To adjust for contributions and withdrawals taking place over the fiscal year, the average level of required reserves for the fiscal year is used in calculating required earnings.

5. The Post Retirement Investment Fund operates on a July 1 - June 30 fiscal year.

6. Similar to the methodology of not recognizing unrealized equity capital gains (or losses), the DYA account smoothes out benefit payments by not forcing losses on bond transactions to be immediately recognized in full.

7. Retirees are not eligible for benefit increases until eighteen months after the end of the fiscal year in which they retire. Thus the required reserve level used in calculating benefit increases is the level effective at the beginning of the most recently completed fiscal year, adjusted by the estimated mortality experience during the upcoming six months until the beginning of the new calender year.

POST RETIREMENT INVESTMENT FUND

STAFF POSITION PAPER #2

INTRODUCTION

A recent staff paper on the Post Retirement Investment Fund described the Fund's two primary investment objectives as follows: First, to produce annual earnings (defined as income plus realized equity capital gains) sufficient to maintain benefits at current levels. Second, to generate additional earnings which allow benefits to be increased at a rate which compensates, to some degree, for inflation.

The different risk-return aspects of these two goals suggests that the investment approach of the Post Retirement Investment Fund be segmented. By doing so, each objective could be addressed with a separate investment strategy, with the intended result of achieving the most effective implementation of both goals.

BENEFIT MAINTENANCE STRATEGY

This report considers the first objective of producing annual earnings adequate to support the benefits currently promised Post Retirement Investment Fund participants. At any given time the liabilities of the Fund are well-defined. Bear in mind that retirees are promised a life-time annuity with benefits based on their "high five" average salaries and years of service. Upon their retirement, dollar amounts sufficient to fund these benefits (i.e., the present value of the annuities) are transferred from the Basic Retirement Funds to the Post Retirement Investment Fund. It is required that these transferred sums earn at least 5% per annum as they are being distributed over the retirees' remaining lives. Thus, on an actuarially estimated basis, one can specify each year, in dollar terms, how much the Fund will have to pay out in benefits and how much it will have to earn to sustain those benefits.

Assume for the moment that the Post Retirement Investment Fund had only one participant. Upon his/her retirement the present value of the participant's annuity is transferred to the Fund. A convenient way to invest the transferred sum and meet the actuarial return would be for the Fund to purchase a special type of bond. This bond would be a risk-free government security. Further, it would generate monthly interest payments at the annual rate of 5% as well as repay enough of the principal so that the sum of the principal pay down plus interest payments just matched the promised monthly benefit. The bond would have a life equal to that of the employee's remaining life. At the end of the participant's life the principal of the bond would have been reduced to zero and each month the participant would have received precisely his/her promised pension benefit.

Unfortunately, bonds with such flexible investment characteristics are not available to pension funds. Further, the assumption of certainty with respect to the length of the retiree's remaining life is not realistic. However, by pooling many employees' pension assets, a large pension fund can obtain much of the investment flexibility and actuarial certainty described in the one-person hypothetical example above.

With a large sum of assets under management, a sizable number of bonds with a diverse combination of maturity and coupon payment dates can be acquired. The resulting bond portfolio can be designed to generate principal and interest cash flows which closely match the monthly cash payouts expected to be made to pension plan participants. Such a bond portfolio is referred to as a dedicated bond portfolio. Computer programs which can construct dedicated bond portfolios are readily available. A plan sponsor need only supply a reasonably accurate projection of cash outflows to plan beneficiaries.

The primary advantage of a dedicated bond portfolio is the certainty and efficiency with which it meets the cash flow needs of a pension plan. By investing in only high quality bonds, the exact principal and interest payments to a fund can be calculated with certainty. Further, because the dates and amounts of the cash flows produced by these fixed income securities are known precisely, the minimum value of the dedicated bond portfolio necessary to finance a plan's required earnings and expected cash outflows can be computed.

DEDICATED BOND PORTFOLIO CONSTRUCTION

SBI staff has gathered actuarial data from the various retirement plans whose retired members participate in the Post

Retirement Fund. The data, current through June 30, 1983, provides the plans' estimates as to expected benefit payments, assuming no new participants and no benefit increases. It is these benefits that a dedicated portfolio would be constructed to meet.

Staff has simulated the composition of a dedicated bond portfolio that would be able to produce cash flows which match the estimated benefit payments. The size of this portfolio is approximately $1 billion versus a June 30, 1984 total market value of the Post Retirement Fund of $1.85 billion (or 54% of the Fund). The composition of this dedicated bond portfolio, as well as the estimated schedule of interest income, maturities, liquidations, and benefit payments is attached to this report.

From the existing $950 million bond portfolio, approximately $550 million can be retained. Thus, construction of a dedicated bond portfolio will require the sale of roughly $400 million of current bond holdings and the purchase of approximately $450 million of new bond positions. In terms of meeting estimated cash outflows, the existing bond portfolio is primarily deficient in issues which mature over the period 1994-2013. It is these issues in which the bulk of the new purchases would have to be concentrated.

Staff envisions that an on-going dedicated bond portfolio could be managed internally, utilizing computer software supplied by an investment services firm. The dedicated portfolio would be rebalanced at the end of each calendar year based upon the most recent fiscal year's actuarial data. Contributions to the Fund made over the course of a year would be invested in cash equivalents until the dedicated bond portfolio was rebalanced.

POST RETIREMENT INVESTMENT FUND

STAFF POSITION PAPER #3

INTRODUCTION

This report is the third in a series of staff position papers on the Post Retirement Investment Fund. The first paper describes the structure of the Fund, including the mechanics underlying the Fund's benefit computations and the Fund's dual investment objectives. The second paper deals specifically with the Fund's primary objective: that is, to produce annual earnings sufficient to finance the benefits currently promised the Fund's participants. The paper concluded that a dedicated bond portfolio is the most efficient means of ensuring that the Fund can meet these obligations. A dedicated bond portfolio is a portfolio of high quality fixed income securities constructed to generate cash flows from income and principal payments which match a specific stream of liabilities. In the case of the Post Retirement Investment Fund, that stream of liabilities is represented by the benefits paid to retirees. An analysis of the Fund indicates that approximately one-half of the Fund's assets will have to be placed in a dedicated bond portfolio to meet promised benefits.

This paper considers the Fund's second objective: to produce additional earnings that allow benefits to be increased at a rate that compensates, to some degree, for inflation. If one-half of the Fund's assets are invested in a dedicated bond portfolio, then the other one-half of the assets are free to be invested with the goal of financing benefit increases. We will refer to these remaining assets as the "active portfolio." The issue that must be addressed is "What approach to investing this active portfolio best serves the collective interests of the retirees?"

The appropriate investment strategy for the Post Retirement Investment Fund's active portfolio depends upon the risk-return preferences of its participants. If the retirees desire that the Fund produce consistent benefit increases at some fraction of the inflation rate, a very conservative strategy should be implemented. Conversely, if the retirees desire benefit increases which equal or exceed the inflation rate, a more aggressive investment approach should be utilized. But this latter strategy also entails a greater variability in the final outcomes. Conservative approaches should have a very high probability of achieving their modest benefit increase targets. Aggressive approaches, on the other hand, may produce large benefit increases in some years, but may also produce small or zero increases in other years.

RECENT BENEFIT INCREASES

In recent years, benefit increases granted eligible Post Retirement Investment Fund participants have more than compensated for inflation. Assuming a 5% 1984 inflation rate, consumer prices have risen 5.4% per year, on average, from 1981-84. Benefits to Fund particpants, on the over hand, have annually averaged 6.3% over this same period. Thus, the purchasing power of retiree pension benefits have risen an average of approximately 1% per year from 1981-84. The real (i.e., inflation adjusted) benefit increase in 1983 was the most dramatic. The inflation rate in 1983 was only 3.8%, yet benefits rose 6.9%, a 3.1% increase in real benefits.

It is important to understand that these large benefit increases relative to inflation have been made possible by extraordinary financial and economic conditions. From 1981-84, nominal interest rates have been very high, while inflation rates have been quite subdued. The resulting real interest rates have been at their highest levels in the last forty years. In this environment, the fixed income assets of the Post Retirement Investment Fund have generated substantial current income, sufficient to produce benefit increases well in excess of the inflation rate.

While economic forecasting is a hazardous business, it seems improbable that real interest rates will persist at such high levels throughout the remainder of the 1980's and into the 1990's. Real interest rates could decline because inflation may increase and/or because nominal interest rates may fall. Either outcome would prevent the Fund from indefinitely providing benefit increases significantly above the inflation rate, as it has been able to do in recent years. Benefit increase objectives for the Fund should be set with these considerations in mind.

BENEFIT INCREASE STRATEGIES - CONSERVATIVE APPROACH

If the Post Retirement Investment Fund's beneficiaries are very sensitive to risk, a strategy of investing most or all of the Fund's active portfolio in U.S. Treasury bills may be appropriate. The return on these securities historically has tracked the inflation rate closely and, in recent years, has even exceeded the inflation rate. As discussed, at current interest rates, the required size of the dedicated portfolio would permit placing the approximately half of the Fund's remaining assets in Treasury bills. This approach would have a high probability of producing annual benefit increases at least half of the inflation rate.

The investment of the active portfolio in Treasury bills protects plan participants against a sharp rise in inflation. In such an environment, interest rates on Treasury bills would also be expected to rise. Thus, the active portfolio of the Fund would produce an increasing stream of earnings to offset inflation. In fact, over the long-run, the higher the level of interest rates, the smaller will be the required size of the dedicated portfolio, and the larger can be the size of the active portfolio. Thus, as inflation rates and, presumably, interest rates rise, the fraction of the inflation rate that can be provided by the Post Retirement Investment Fund in benefit increases also rises. (However, the rate of change in this fraction will depend on the diluting effect of new cash flow to the Fund as discussed below.)

It is true that under this approach the plan participants are exposed to some interest rate risk. This risk results from the fact that the assets of the new entrants to the Fund are continuously commingled with those of the previously enrolled participants. Benefit increases are granted to all participants equally, regardless of their date of entry into the Fund (beyond an initial eighteen month waiting period). If interest rates should decline significantly, the diluting effect of new entrants' contributions on the earnings of the dedicated portfolio will necessitate an increase in the size of that portfolio to maintain sufficient earnings to fund promised benefits. In turn, the active portfolio will have to be reduced in size which will lower the fraction of the inflation rate that the Fund can provide in benefit increases. However, if such a declining interest rate environment should occur, it is safe to assume that the inflation rate will remain moderate or even decline. Thus, while the Fund's ability to provide benefits that track inflation would be hampered in a declining interest rate environment under this strategy, the impact on plan participants would not be great, because inflation would not be a major financial problem to the participants.

BENEFIT INCREASE STRATEGIES - AGGRESSIVE APPROACH

If the Post Retirement Investment Fund's participants are not highly sensitive to risk, more aggressive strategies can be employed which may permit benefit increases equal to or exceeding the inflation rate. These strategies, however, possess the downside risk of potentially producing benefits increases which fall well below the inflation rate.

One of the aggressive approaches is to invest all of the active portfolio in long-term high-yielding fixed income investments. For example, zero coupon Treasury receipts can currently can be purchased that would lock in 12% returns for periods up to twenty years. Given the current required size of the dedicated portfolio, this approach could permit benefit increases of roughly 6% a year for an extended period. If inflation remains subdued at rates near 3-5%, this strategy could generate significant positive inflation-adjusted benefit increases. Further, this approach is particularly attractive if future interest rates decline. The dilutive effect of new entrants and their corresponding new cash flow will eventually take its toll and cause the required size of the dedicated portfolio to increase. However, sizable real earnings for the Fund will tail off much slower than under the previously described conservative strategy.

This approach, however, carries with it a higher level of risk then the conservative strategy. If inflation and interest rates should increase sharply, the Fund is locked into long-term assets which could only be sold at losses. Active portfolio earnings and thus, benefit increases, would be fixed and would not be able to increase with rising inflation rates. This would be a highly undesirable outcome for many retirees.

Another aggressive strategy available is to invest all of the active portfolio in common stocks. Common stocks have historically far outperformed fixed income investments. Because realized equity capital gains count as Post Retirement Investment Fund earnings, in a strong bull market for stocks, this approach would likely produce maximum possible benefit increases for retirees. On the other hand, this approach entails considerable risk as the capital gain returns on common stocks are considerably more variable than fixed income interest earnings. If common stocks were to perform poorly for a extended period of time, this strategy could result in zero benefit increases and, hence, no inflation protection, conceivably in an environment of rising inflation rates.

BENEFIT INCREASES STRATEGIES - BALANCED APPROACH

Within these two extreme strategies lie a number of balanced approaches to investing the active portfolio. One particularly attractive strategy entails utilizing a combination of bonds and stocks. This approach is designed to produce earnings which consistently permit a base benefit increase and at the same time offer the opportunity to earn additional benefit increases in most years, some of which may be quite large.

The dedicated bond portfolio, as discussed, will require roughly 55% of the Fund's total assets. By splitting this remaining 45% approximately equally between bonds and stocks, the Fund can offer retirees an attractive combination of relatively stable, yet, on average, sizable benefit increases. The interest income derived from the bond component of the active portfolio would build in a floor benefit increase that would not be subject to near-term changes in capital markets conditions. The stock component offers the opportunity to earn benefit increases in excess of this floor increase. The extent to which these additional benefit increases exceed the floor increase will depend on how well the stock market performs. In periods when stock market prices rise, those stocks that have gains relative to their cost bases can be sold to realize those gains and thus finance benefit increases above the floor. However, because Post Retirement Investment Fund earnings are not affected by unrealized equity capital losses, short-run declines in stock prices will not reduce benefit increases below the floor. The active portfolio also may contain a small cash component to ensure adequate liquidity.

Tab F

EXECUTIVE DIRECTOR
HOWARD J BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

December 4, 1984

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

FROM: Equity Manager Committee

SUBJECT: Committee Report

NOTES FROM INVESTMENT ADVISORY COUNCIL EQUITY SUB-COMMITTEE MEETING ON NOVEMBER 30, 1984.

I. Review of Equity Manager Performance

Using the three categories established at the last meeting, the managers were classified as follows:

Probation	Watch	Normal
BMI	Beutel Goodman	All the remaining managers
Herbert R Smith	Alliance Capital	
Loomis Sayles	Siebel Capital	
	IDS	

The three managers on the "probation" list have significantly underperformed the Wilshire 5000 over the last year and one-half. Although the subcommittee recommends withholding future contributions, it is felt that the measurement period is too short to justify terminating any of the managers. This will be re-evaluated at the two year mark.

The first three names on the "Watch" list appear there because ownership changes have created a need for close monitoring. IDS, on the other hand, is included because they continue to lose accounts.

II. Discussion of Alternative Manager List

The fact that the growth bias in the existing manager mix has hurt the active equity performance over the last year and one-half was discussed. The subcommittee concluded that a switch to more value oriented managers at this point in the cycle would probably be counter-productive.

It was, however, recognized that longer-term there will probably need to be some changes in the manager mix and, consequently, the following action plan was developed:

1) Create a list of relevant manager-style categories.

2) Categorize existing managers and assess existing fund biases.

3) Determine desired long-term biases and whether or not a policy of active allocation between styles should be considered.

4) Develop with Evaluation Associates a list of candidate firms for each style.

5) Compare desired style mix to existing style mix and recommend changes.

The Committee plans to meet at the beginning of January to complete the first step.

SIEBEL CAPITAL MANAGEMENT

Wood Island, 4th Floor / 80 East Sir Francis Drake Boulevard / Larkspur, California 94939 (415) 461-3850

November 8, 1984

Mr. Howard Bicker
Minnesota State Board of Investment
Room 105, MEA Building
55 Sherburne Avenue
St. Paul, Minnesota 55155

Dear Howard:

Ron and I enjoyed visiting with you two weeks ago. We found the meeting to be very productive from our standpoint. We understand your concerns as a result of the meeting. Siebel Capital Management has made the decision to begin a search for an equity portfolio manager whose prime responsibility will be to manage the Equitec mutual fund when it becomes effective. We have set a March 1 timetable and hope to have this position filled earlier, if possible.

Additionally, we have offered a position to a fixed income manager, Mr. Edward Sporl, who would join us on January 1st or earlier. He has an outstanding record in the fixed income arena. He could be responsible for the fixed income fund when Equitec chooses to register such a fund.

The Chairman of Equitec, Mardy Cason, and the President, Ken Nitzberg, totally support these decisions. Again, we appreciate very much your counsel regarding these issues.

Best regards,

Ken

Kenneth F. Siebel, Jr.
President

KFS:pad

Evaluation Associates, Incorporated

25 Sylvan Road South, Westport, Connecticut 06880 (203) 226-7864
Main Street, P O Box 1680, New London, New Hampshire 03257 (603) 526-2311

November 20, 1984

Mr. Howard J. Bicker
Executive Director
State of Minnesota
State Board of Investment
Rm 105, MEA Building
55 Shelburne Avenue
St. Paul, MN 55155

Dear Howard:

This letter addresses two events affecting Alliance's future. They are Equitable Life Assurance Society of the United States' (Equitable) purchase of Donaldson, Lufkin & Jenrette (DLJ) and Alliance's acquisition of Eberstadt Asset Management (EAM). My conclusions are the firm will not be destabilized by these events.

Equitable announced the purchase of DLJ on Monday, November 5. We spoke with Leo Walsh, chief investment officer of Equitable, on Friday, November 9. He stated that one of Equitable's main reasons for buying DLJ was to be able to expand the financial services it can offer in order to survive in an environment of competing financial services conglomerates. Mr. Walsh maintained this step was necessary to ensure growth and retain clients. Through DLJ's brokerage and investment banking services, Equitable will not only expand the services it offers, but it will also be acquiring a distribution channel for insurance products and mutual funds. That channel is the Pershing & Company, part of DLJ's brokerage business, which is the nation's largest securities clearing firm for independent brokerage firms and regional banks. Presently, DLJ uses this source to sell its mutual funds. DLJ's brokerage and investment banking businesses, including Pershing & Company, will become a subsidiary of Equitable.

In the process, of course, Equitable will acquire Alliance, which will also become a subsidiary of the insurance company. The attraction of Alliance, aside from its profitability, is its strength in the public employee benefit, Taft-Hartley, and mutual fund areas. Equitable's other investment management subsidiary, The Equitable Investment Management Corporation (EIMC), is only strong in the corporate pension fund arena. Alliance is also a manager of load mutual funds, an area in which EIMC has no representation. Mr. Walsh said it would not make sense for Equitable to interfere with Alliance and drive away the very professionals who make this management firm attractive. He indicated, therefore, that Alliance will continue to operate as before. That is, it will have complete control over its investment process, how it does business, including the determination of compensation of the professional staff. We believe this reasoning makes sense.

Obviously, Mr. Walsh was upset by the November 7th Wall Street article, which insinuated that Alliance's performance might suffer from the control of an insurance company. Mr. Walsh went out of his way to speak to some of the top people at Alliance (namely, Dave H. Williams, Clinton J. Kendrick, Frank W. Burr, and Jane C. Mack) to assure them that they would be able to carry on as before.

We then decided to question some of these people and were successful in reaching Dave H. Williams, chairman of the firm, and equity/balanced portfolio manager, Frank W. Burr.

Mr. Williams accepted Mr. Walsh's statements on good faith and thinks Equitable will be a good parent. He made this observation on the basis of the way the insurance comapany set up EIMC. He is a friend of Donald R. Kurtz (President of EIMC) and was privy to the establishment of EIMC. He also strongly feels that Equitable would not be served by interfering in Alliance's operation.

Frank Burr echoed these sentiments. He also stated that the other portfolio managers felt comfortable with the acquisition.

The second event affecting Alliance is its acquisition of Eberstadt Asset Management (EAM), including the mutual fund unit, which is expected to be completed November 20, 1984. Clearly, Alliance was after Eberstadt's mutual funds, accounting for approximately $1 billion, primarily in the Chemical Fund. Alliance on its own only had $500 million under management in load funds. This increased revenue will enable Alliance to support expansion of distribution and shareholders' service. Of course, this increase in mutual fund business fits in with Equitable's objectives. As a result of this acquisition, Eberstadt will disappear as a firm.

The obvious question? How will Eberstadt's portfolio managers be absorbed into Alliance? Right now, Alliance is interviewing Eberstadt's clients to determine if they want to maintain the approach of the Chemical Fund, which is EAM's basic approach. This approach restricts investments to industry groups related to science, technology, and growth, according to Mr. Williams, who was frank in saying that he did not know yet how EAM's institutional portfolio managers would be used and how many would be retained. Alliance and Eberstadt share an interest in technology companies and small growth companies. Right now, according to Mr. Williams, both portfolios are in big cap stocks. However, Alliance is more rotational and more aggressive than Eberstadt and is not about to change its style. We expect that some EAM portfolio managers will fall by the wayside and be looking for jobs elsewhere. And if any of these managers are reassigned to Alliance's institutional accounts, they will be closely supervised, especially in the beginning.

Mr. Howard J. Bicker
November 20, 1984
Page Three

There appears to be little impact at this point on your portfolio. The biggest longer-term risk is the potential distraction to aggressive portfolio management caused by a growing mutual fund business.

Sincerely yours,

James C. Ryan, CFA
Senior Vice President
JCR:MLH

Attachments

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

EQUITY INVESTMENT MANAGER STATUS REPORT: 6/30/84 – 9/30/84

($ millions)

Investment Manager	Equity Assets Under Management 3/31/83 # of Accts	3/31/83 Asset Size	9/30/84 # of Accts	9/30/84 Asset Size	Third Quarter 1984 Gained # of Accts	Gained Asset Size	Lost # of Accts	Lost Asset Size	Professional Staff Turnover	Organizational Changes	Investment Style Changes	Comments
Fred Alger Management	59	$1,645	78*	$2,059	1	$ 11.5	1	$102.6	Hired analyst/manager, William Ferer.	–	–	–
Alliance Capital Management (Minneapolis)	43	$1,095	45	$1,303	–	–	–	–	–	Recently announced purchase of Eberstadt Asset Mgmt and acquisition by the Equitable.	–	See memorandum.
Beutel, Goodman Capital Management	5	$ 104	15	$ 298	4	$ 46.5	–	–	–	Agreed to sell a 40% minority interest in Canadian Company to Crownx Inc.;	–	Sale does not affect Houston partners. Strong investment performance since inception continues.
BMI Capital Corp.	5	$ 160	17	$ 270	1	$ 8	1	$ 26	–	–	–	–
FLA Asset Management	126	$4,800	110	$4,397	–	–	5	$106.1	–	–	–	–
Hellman Jordan Management	22	$ 440	31	$ 702	–	–	1	$ 45	–	Change of ownership made officially in August.	–	–
IDS Advisory Group	81	$3,361	86	$3,003	3	$ 31.6	4	$161.8	–	–	–	–
IDS Equity Advisors			54	$2,152	2	$ 7.1	4	$161.8	–	–	–	
Investment Advisers, Inc.	79	$1,001	89	$1,363	–	–	–	–	John Murphy, equity portfolio manager and member of Investment Committee, left the firm.	–	–	Best performing manager this quarter.
Lieber & Co.	29	$ 389	38	$ 561.7	–	–	1	$25.9	–	–	–	–
Evergreen Total Return			21	$ 103.9								
Evergreen Fund			16	$ 451.2								
Evergreen Limited			1	$ 6.6								

* Readjusted total number of accounts downward by one.

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

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Loomis-Sayles & Co. (Capital Growth Management)	12	$ 540	13	$ 615.7	-	-	-	-	-	-	-	
Norwest Bank Minneapolis	3	$ 49	3	$ 97	-	-	-	-	-	-	-	-
Siebel Capital Management	32	$ 412	39	$ 595	2	$ 11.7	2	$ 30.2	-	Alan Snyder, research analyst, left firm.	-	-
Herbert R. Smith, Inc.	24	$ 152	29	$ 193	-	-	2	$ 3	-	-	-	-
Trustee & Investors Co., Inc.	15	$ 310	26	$ 766	1	$ 25	1	$ 7	-	-	-	Sharp performance improvement in 3rd quarter.
Waddell & Reed Asset Management Co.	6	$ 471	9	$ 575	-	-	-	-	-	-	-	-

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
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Room 105, MEA Building
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December 4, 1984

TO: Members, Minnesota State Board of Investment
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FROM: Equity Manager Committee

SUBJECT: Committee Report

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The first three names on the "Watch" list appear there because ownership changes have created a need for close monitoring. IDS, on the other hand, is included because they continue to lose accounts.

II. Discussion of Alternative Manager List

The fact that the growth bias in the existing manager mix has hurt the active equity performance over the last year and one-half was discussed. The subcommittee concluded that a switch to more value oriented managers at this point in the cycle would probably be counter-productive.

It was, however, recognized that longer-term there will probably need to be some changes in the manager mix and, consequently, the following action plan was developed:

1) Create a list of relevant manager-style categories.

2) Categorize existing managers and assess existing fund biases.

3) Determine desired long-term biases and whether or not a policy of active allocation between styles should be considered.

4) Develop with Evaluation Associates a list of candidate firms for each style.

5) Compare desired style mix to existing style mix and recommend changes.

The Committee plans to meet at the beginning of January to complete the first step.

SIEBEL CAPITAL MANAGEMENT

Wood Island, 4th Floor / 80 East Sir Francis Drake Boulevard / Larkspur, California 94939 (415) 461-3850

November 8, 1984

Mr. Howard Bicker
Minnesota State Board of Investment
Room 105, MEA Building
55 Sherburne Avenue
St. Paul, Minnesota 55155

Dear Howard:

Ron and I enjoyed visiting with you two weeks ago. We found the meeting to be very productive from our standpoint. We understand your concerns as a result of the meeting. Siebel Capital Management has made the decision to begin a search for an equity portfolio manager whose prime responsibility will be to manage the Equitec mutual fund when it becomes effective. We have set a March 1 timetable and hope to have this position filled earlier, if possible.

Additionally, we have offered a position to a fixed income manager, Mr. Edward Sporl, who would join us on January 1st or earlier. He has an outstanding record in the fixed income arena. He could be responsible for the fixed income fund when Equitec chooses to register such a fund.

The Chairman of Equitec, Mardy Cason, and the President, Ken Nitzberg, totally support these decisions. Again, we appreciate very much your counsel regarding these issues.

Best regards,

Ken

Kenneth F. Siebel, Jr.
President

KFS:pad

Evaluation Associates, Incorporated

25 Sylvan Road South, Westport, Connecticut 06880 (203) 226-7864
Main Street, P O Box 1680, New London, New Hampshire 03257 (603) 526-2311

November 20, 1984

Mr. Howard J. Bicker
Executive Director
State of Minnesota
State Board of Investment
Rm 105, MEA Building
55 Shelburne Avenue
St. Paul, MN 55155

Dear Howard:

This letter addresses two events affecting Alliance's future. They are Equitable Life Assurance Society of the United States' (Equitable) purchase of Donaldson, Lufkin & Jenrette (DLJ) and Alliance's acquisition of Eberstadt Asset Management (EAM). My conclusions are the firm will not be destabilized by these events.

Equitable announced the purchase of DLJ on Monday, November 5. We spoke with Leo Walsh, chief investment officer of Equitable, on Friday, November 9. He stated that one of Equitable's main reasons for buying DLJ was to be able to expand the financial services it can offer in order to survive in an environment of competing financial services conglomerates. Mr. Walsh maintained this step was necessary to ensure growth and retain clients. Through DLJ's brokerage and investment banking services, Equitable will not only expand the services it offers, but it will also be acquiring a distribution channel for insurance products and mutual funds. That channel is the Pershing & Company, part of DLJ's brokerage business, which is the nation's largest securities clearing firm for independent brokerage firms and regional banks. Presently, DLJ uses this source to sell its mutual funds. DLJ's brokerage and investment banking businesses, including Pershing & Company, will become a subsidiary of Equitable.

In the process, of course, Equitable will acquire Alliance, which will also become a subsidiary of the insurance company. The attraction of Alliance, aside from its profitability, is its strength in the public employee benefit, Taft-Hartley, and mutual fund areas. Equitable's other investment management subsidiary, The Equitable Investment Management Corporation (EIMC), is only strong in the corporate pension fund arena. Alliance is also a manager of load mutual funds, an area in which EIMC has no representation. Mr. Walsh said it would not make sense for Equitable to interfere with Alliance and drive away the very professionals who make this management firm attractive. He indicated, therefore, that Alliance will continue to operate as before. That is, it will have complete control over its investment process, how it does business, including the determination of compensation of the professional staff. We believe this reasoning makes sense.

Obviously, Mr. Walsh was upset by the November 7th Wall Street article, which insinuated that Alliance's performance might suffer from the control of an insurance company. Mr. Walsh went out of his way to speak to some of the top people at Alliance (namely, Dave H. Williams, Clinton J. Kendrick, Frank W. Burr, and Jane C. Mack) to assure them that they would be able to carry on as before.

We then decided to question some of these people and were successful in reaching Dave H. Williams, chairman of the firm, and equity/balanced portfolio manager, Frank W. Burr.

Mr. Williams accepted Mr. Walsh's statements on good faith and thinks Equitable will be a good parent. He made this observation on the basis of the way the insurance comapany set up EIMC. He is a friend of Donald R. Kurtz (President of EIMC) and was privy to the establishment of EIMC. He also strongly feels that Equitable would not be served by interfering in Alliance's operation.

Frank Burr echoed these sentiments. He also stated that the other portfolio managers felt comfortable with the acquisition.

The second event affecting Alliance is its acquisition of Eberstadt Asset Management (EAM), including the mutual fund unit, which is expected to be completed November 20, 1984. Clearly, Alliance was after Eberstadt's mutual funds, accounting for approximately $1 billion, primarily in the Chemical Fund. Alliance on its own only had $500 million under management in load funds. This increased revenue will enable Alliance to support expansion of distribution and shareholders' service. Of course, this increase in mutual fund business fits in with Equitable's objectives. As a result of this acquisition, Eberstadt will disappear as a firm.

The obvious question? How will Eberstadt's portfolio managers be absorbed into Alliance? Right now, Alliance is interviewing Eberstadt's clients to determine if they want to maintain the approach of the Chemical Fund, which is EAM's basic approach. This approach restricts investments to industry groups related to science, technology, and growth, according to Mr. Williams, who was frank in saying that he did not know yet how EAM's institutional portfolio managers would be used and how many would be retained. Alliance and Eberstadt share an interest in technology companies and small growth companies. Right now, according to Mr. Williams, both portfolios are in big cap stocks. However, Alliance is more rotational and more aggressive than Eberstadt and is not about to change its style. We expect that some EAM portfolio managers will fall by the wayside and be looking for jobs elsewhere. And if any of these managers are reassigned to Alliance's institutional accounts, they will be closely supervised, especially in the beginning.

There appears to be little impact at this point on your portfolio. The biggest longer-term risk is the potential distraction to aggressive portfolio management caused by a growing mutual fund business.

Sincerely yours,

James C. Ryan, CFA
Senior Vice President
JCR:MLH

Attachments

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

EQUITY INVESTMENT MANAGER STATUS REPORT: 6/30/84 - 9/30/84

($ millions)

	EQUITY ASSETS UNDER MANAGEMENT				THIRD QUARTER 1984							
	3/31/83		9/30/84		Gained		Lost					
Investment Manager	# of Accts	Asset Size	# of Accts	Asset Size	# of Accts	Asset Size	# of Accts	Asset Size	Professional Staff Turnover	Organizational Changes	Investment Style Changes	Comments
Fred Alger Management	59	$1,645	78*	$2,059	1	$ 11.5	1	$102.6	Hired analyst/manager, William Ferer.	-	-	-
Alliance Capital Management (Minneapolis)	43	$1,095	45	$1,303	-	-	-	-	-	Recently announced purchase of Eberstadt Asset Mgmt and acquisition by the Equitable.	-	See memorandum.
Beutel, Goodman Capital Management	5	$ 104	15	$ 298	4	$ 46.5	-	-	-	Agreed to sell a 40% minority interest in Canadian Company to Crownx Inc.;	-	Sale does not affect Houston partners. Strong investment performance since inception continues.
BMI Capital Corp.	5	$ 160	17	$ 270	1	$ 8	1	$ 26	-	-	-	-
FIA Asset Management	126	$4,800	110	$4,397	-	-	5	$106.1	-	-	-	-
Hellman Jordan Management	22	$ 440	31	$ 702	-	-	1	$ 45	-	Change of ownership made officially in August.	-	-
IDS Advisory Group	81	$3,361	86	$3,003	3	$ 31.6	4	$161.8	-	-	-	-
IDS Equity Advisors			54	$2,152	2	$ 7.1	4	$161.8	-	-	-	
Investment Advisers, Inc.	79	$1,001	89	$1,363	-	-	-	-	John Murphy, equity portfolio manager and member of Investment Committee, left the firm.	-	-	Best performing manager this quarter.
Lieber & Co.	29	$ 389	38	$ 561.7	-	-	1	$25.9	-	-	-	-
Evergreen Total Return			21	$ 103.9								
Evergreen Fund			16	$ 451.2								
Evergreen Limited			1	$ 6.6								

* Readjusted total number of accounts downward by one.

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

EQUITY INVESTMENT MANAGER STATUS REPORT: 6/30/84 - 9/30/84

($ millions)

Investment Manager	EQUITY ASSETS UNDER MANAGEMENT 3/31/83 # of Accts	EQUITY ASSETS UNDER MANAGEMENT 3/31/83 Asset Size	EQUITY ASSETS UNDER MANAGEMENT 9/30/84 # of Accts	EQUITY ASSETS UNDER MANAGEMENT 9/30/84 Asset Size	THIRD QUARTER 1984 Gained # of Accts	Gained Asset Size	Lost # of Accts	Lost Asset Size	Professional Staff Turnover	Organizational Changes	Investment Style Changes	Comments
Loomis-Sayles & Co. (Capital Growth Management)	12	$ 540	13	$ 615.7	-	-	-	-	-	-	-	
Norwest Bank Minneapolis	3	$ 49	3	$ 97	-	-	-	-	-	-	-	-
Siebel Capital Management	32	$ 412	39	$ 595	2	$ 11.7	2	$ 30.2	-	Alan Snyder, research analyst, left firm.	-	-
Herbert R. Smith, Inc.	24	$ 152	29	$ 193	-	-	2	$ 3	-	-	-	-
Trustee & Investors Co., Inc.	15	$ 310	26	$ 766	1	$ 25	1	$ 7	-	-	-	Sharp performance improvement in 3rd quarter.
Waddell & Reed Asset Management Co.	6	$ 471	9	$ 575	-	-	-	-	-	-	-	-

Tab G

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

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

November 28, 1984

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

FROM: Fixed Income Manager Committee

SUBJECT: Committee Report

The Committee reviewed proposed guidelines to be used to evaluate the Board's fixed income managers. These guidelines are similar to the equity manager guidelines previously adopted by the Board, modified slightly to take into account the performance objectives of the fixed income managers. The Committee recommends that the proposed guidelines be adopted by the Board.

The Committee also considered a proposed format for presenting fixed income manager portfolio statistical data. This format will be included in the next quarterly report.

The Committee reviewed the third quarter performance of the fixed income managers. Given that the managers have been managing the Basic Retirement Funds' fixed income assets for only one quarter, the Committee notes only that the performance data presented no unusal results.

ALTERING MANAGER ASSET ALLOCATION

DECISION GUIDELINES

BOND MANAGERS

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 personel	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 affected	Substantial distractions for key staff occur
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)	Total portfolio (bonds plus cash) underperforms bond-only portfolio over four quarters	
B. Poor total portfolio performance relative to the market		Total Portfolio under performs the Merrill Lynch Master Bond Index over a two-to-three year period
C. Poor performance relative to other managers of similar style	Portfolio performs below median of TUCS bond manager subsample over four quarters	Portfolio performs below median of TUCS bond manager subsample over two-to-three years
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 considerations deemed relevant to manager monitoring.	

STATE OF MINNESOTA

STATE BOARD OF INVESTMENT

FIXED INCOME INVESTMENT MANAGER STATUS REPORT: 6/30/84 - 9/30/84

($ millions)

Investment Manager	Fixed Income Assets Under Management 6/30/84 # of Accts	6/30/84 Asset Size	9/30/84 # of Accts	9/30/84 Asset Size	Third Quarter 1984 Gained # of Accts	Gained Asset Size	Lost # of Accts	Lost Asset Size	Professional Staff Turnover	Organizational Changes	Investment Style Changes	Comments
Investment Advisers, Inc.	48	$ 275	48	$ 301	-	-	-	-	-	-	-	Best performing fixed income manager this quarter.
Lehman Management Co. Inc.	36	$3,000	39	$3,250	3	$ 250	-	-	Hired Laurence Fell as senior fixed income portfolio manager.	-	-	-
Miller, Anderson & Sherrerd	37	$2,184	39	$2,329	2	$ 175	-	-	Ellen D. Harvey joined as fixed income portfolio manager.	-	-	-
Morgan Stanley Asset Mgmt. Inc.	29	$1,040	33	$1,355	4	$ 254	-	-	-	-	-	-
Norwest Bank Minneapolis	5	$ 170	6	$ 255	1	$ 75	-	-	-	-	-	-
Western Asset Mgt. Co.	30	$1,599	30	$1,773	-	-	-	-	Win Neuger, chief investment officer and fixed income portfolio manager, left firm; Edgar Robie joined as fixed income portfolio manager.	-	-	Decision to replace Win Neuger is pending; we will continue to monitor for changes in style and decision-making process.

Tab H

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

November 21, 1984

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

FROM: Alternative Investment Committee

SUBJECT: Alternative Investment Strategy Recommendations

As a strategy to increase overall portfolio diversification and provide a hedge against inflation, the Investment Advisory Council's Asset Allocation Committee has recommended that 15% or $450 million of the $3 billion Basic Retirement Fund be allocated to alternative investments. Alternative investments include real estate, venture capital and resource investments where Minnesota State Board of Investment (SBI) participation is limited to commingled funds or other pooled vehicles.

STRATEGY FOR INVESTMENTS

VENTURE CAPITAL

The venture capital investment strategy is to 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. Given the current favorable environment for venture capital investing, the Alternative Investment Committee is recommending an acceleration of the SBI's venture capital program from a one to two year goal for completion to a three to nine month objective.

To complete the goal of allocating 2.5% of the Basic Retirement Funds to venture capital, approximately $40 million should be invested in three to five additional venture capital partnerships within the next three to nine months.

The Alternative Investment Committee recommends that the Board approve Stamps, Woodsum and Co. (Summit Ventures) for an investment of $10 million, and Smith Barney Venture Corp. (First Century III) for an investment of $10 million. Smith Barney Venture Corp. offers one of the largest and most experienced professional venture capital staffs in the industry in addition to proven capabilities in successfully investing, managing and liquidating venture capital investments. Stamps, Woodsum and Co. offers extensive venture capital experience and, in addition, a demonstrated ability to actively originate venture capital investments. A detailed review of each manager is attached.

In conjunction with Venture Economics and the Alternative Investment Committee, staff has conducted extensive reviews of each manager, including reference checks and day-long interviews with the managers at their places of business. In addition, staff and Alternative Investment Committee have met with and interviewed each manager at SBI offices.

REAL ESTATE

The real estate investment strategy involves three steps to be implemented over a three to five year period. The first step calls for investment of 30-40% of the real estate portfolio in diversified open-end commingled funds. The second step calls for investment of 30-40% of the real estate portfolio in diversified closed-end commingled funds. The third step calls for investment of 20-30% of the real estate portfolio in less diversified more focused (specialty) commingled funds. The first two steps are substantially completed.

In consultation with Evaluation Associates, the Alternative Investment Committee and staff are currently conducting initial interviews of potential specialty real estate managers in order to select investment finalists that qualify for further consideration. The initial interviews should be completed by January, 1985 at which time a subset of investment finalists will be selected for further review to include interviews at their places of business. The on-site interviews of the finalists will take place during the first and second quarters of 1985 and the specialty real estate manager search is expected to be completed by June 1985.

RESOURCE

The strategy for resource investments requires that investments be made over a three to five year period in oil and gas partnerships that focus investment in conservative, lower risk type investments, that is, proved producing properties and royalties which are diversified geographically and/or geologically. In addition, investments should be structured to "trade-off" or minimize tax benefits in order to enhance the SBI's overall rate of return.

The Alternative Investment Committee and staff are currently reviewing ways to expand the Board's resource investment portfolio. A potential new investment which is currently under consideration is the Boston Company Windfall Profits Tax Exemption Fund. This investment, sponsored by Boston Company Energy Advisors, Inc. and Salomon Brothers, is being offered exclusively to public employees retirement funds that are exempt from the Windfall Profits Tax (WPT). Since major oil companies are subject to marginal WPT rates of 70% on certain crude oil sales, this exemption places public employee retirement funds in a unique position to acquire producing oil properties from major oil companies on a basis that is economically attractive to both parties.

Specifically, public pension plans (limited partners) and a major oil company (general partner) will jointly own, on a 50-50 basis, royalties on proved producing properties. The limited partners will contribute \$100 million in cash and the general partner will contribute \$200 million in royalties. Initially, 99% of all revenues will go to the limited partners. After the limited partners have received an 18% internal rate of return, 99% of revenues will revert to the general partner until they have received an aggregate cash flow equal to the limited partners initial aggregate cash flow. Next, all revenues will be split equally between the limited partners and the general partner.

The net effect of this transaction is that limited partners will receive royalty income exempt from the windfall profits tax and projected to yield an 18% internal rate of return while the general partner receives low cost, off-balance sheet financing. The Alternative Investment Committee and staff will continue to consider this investment and others.

SUMMIT VENTURE PARTNERS

I.	NAME OF FIRM:	Summit Partners
	NAME OF FUND:	Summit Ventures, L.P.
	TYPE OF FUND:	Venture Capital Limited Partnership
	DATE OF ON-SITE INTERVIEW:	October 15, 1984
	FIRM ATTENDEES:	Roe Stamps, Steve Woodsum, Greg Avis, Larry Lepard
	ADDRESS:	Stamps, Woodsum & Co. One Boston Place Boston, Massachusetts 02108
	TELEPHONE:	(617) 742-5500
	CONTACT:	Roe Stamps, Steve Woodsum

II. ORGANIZATIONAL STRUCTURE

Summit Ventures, L.P., is the first venture capital partnership organized by Stamps, Woodsum & Co. and Shearson Summit Management Inc. (SSMI), a wholly-owned subsidiary of Shearson/American Express. Roe Stamps and Steve Woodsum, the founders of Stamps, Woodsum & Co. and managing general partners of the Fund, will assume the primary responsibility for portfolio company investments. SSMI will be a more passive general partner of the Fund. The firm is expected to generate a flow of investment opportunities and provide research services to the Fund. Stamps, Woodsum & Co. will receive three-quarters of the general partners' 20% carried interest; SSMI will receive the balance.

Through SSMI, Shearson/American Express will be a general partner of the Fund. In addition, Shearson and AVA Partners, a partnership of American Express subsidiaries, each have subscribed for $5 million in limited partner interests. Howard Clark, Jr., Chief Investment Officer of the American Express Company, will represent the limited partner investors as a member of the Fund's Advisory Board.

III. PERFORMANCE HISTORY

General Partners

Roe Stamps and Steve Woodsum have ten and six years of venture capital experience, respectively. Stamps and Woodsum worked together at First Chicago Investment Corporation and later, at T.A. Associates, one of the largest private venture capital firms in the country. Although this is the first fund they have managed together, Stamps and Woodsum have worked as a team for the last 5 years. During this period, they invested over $60 million in 24 companies. They originated and led 22 of the investments.

Tom Avery, formerly First V.P. at Robinson-Humphrey/American Express, has recently joined Stamps , Woodsum & Co. as a general partner. Although Avery's principal experience has been in investment banking, his new business development activities at Robinson-Humphrey involved working with technology companies and included participation in several venture capital investments. For additional information specific to each general partner, see Exhibit I.

Portfolio Performance

In measuring the historical performance of Stamps, Woodsum & Co. relative to that of other venture capital firms, staff analyzed the portfolio of 24 investments which Stamps and Woodsum made as a team over the 1979-1984 period.

The total cost of the aggregate Stamps, Woodsum portfolio was $62 million. The unrealized value of the portfolio as of December 31, 1983 was estimated by Stamps and Woodsum to be $88 million. During the 1979-1983 period, $47 million was distributed to the Fund, $36 million of which was distributed in cash. Seven of the 24 portfolio company investments were totally liquidated and five were partially liquidated. Six of the portfolio investments continued to be valued at cost, one was written down, and the balance were valued upwards.

The annual compounded internal rate of return on the 24 portfolio company investments was 72%. Since the Stamps, Woodsum portfolio is an aggregate of investments which the general partners made at First Chicago and T.A. Associates, the rate of return was based on actual cashflows to and from the portfolio companies rather than cashflows to and from the limited partners of the separate funds. The return was gross of both management fees and expenses and the general partners' profit allocation. The unrealized value of the portfolio was treated as having been distributed to the partners on December 31, 1984. The valuation principles which the general partners followed in estimating unrealized portfolio company values are listed on page 8. The aggregate Stamps, Woodsum portfolio is listed in Exhibit II.

IV. STAFF

Staff Composition

Roe Stamps, Steve Woodsum, and Tom Avery, the managing general partners of the Fund, will be assisted by two senior associates, Larry Lepard and Greg Avis, and a junior associate, Craig Lee. In addition, the general partners are in the process of hiring a financial manager. They expect to add two senior associates and another junior associate to the staff within the next two years.

Staff Turnover

There has been no turnover in staff since Stamps, Woodsum & Co. was formed in early 1984.

Allocation Of Responsibilities Among Staff Members

For each investment under consideration, all of the general partners will participate in the investigation and analysis of the company. The decision to proceed with an investment will require the consent of both Roe Stamps and Steve Woodsum, the founding general partners of the firm. Once an investment is made, one of the general partners will assume primary responsibility for monitoring the company's progress and assisting company management. The senior associates will be active throughout the entire investment process from deal generation to investment liquidation. They will work closely with portfolio companies and, on occasion, may assume Board of Director seats. Junior associates will focus their efforts on the deal generation phase of the investment process and will assist in the search for attractive industries and companies.

Compensation And Incentive Systems

Each of the general partners will receive a salary plus a share of the general partners' 20% carried interest. Stamps, Woodsum & Co. will receive three quarters of the carried interest; Shearson/American Express will receive the balance. The associates will receive a salary and, in addition, will be eligible to receive a performance bonus.

Affiliation With Research Organizations And Consultants

As a general partner, Shearson/American Express is expected to provide a flow of investment opportunities to the Fund. In addition, Shearson may also provide investment banking, research, securities trading, and financial consulting services to the Fund.

Apart from Shearson, Stamps, Woodsum & Co. will not utilize any research organizations or consultants on a formal basis. Rather, the general partners anticipate that the top executives of companies they have previously backed will assist in originating and analyzing investment opportunites. In return for services provided to the Fund, the executives will be given the opportunity to make co-investments with the Fund on similar terms as the limited partners.

Co-Investment Network

At First Chicago and T.A. Associates, Stamps and Woodsum co-invested with a number of experienced venture capital firms. Among the most frequent co-investors were Greylock; Golder, Toma; and Citicorp. For Summit Ventures, the general partners anticipate that they will co-invest most often with Burr, Egan, Deleage and Co.; Golder, Toma; Norwest; Greylock; and T.A. Associates.

V. INVESTMENT STRATEGY

Corporate Stage Of Development

The general partners will follow the investment strategy that Stamps and Woodsum developed at First Chicago and T.A. Associates, diversifying the portfolio by investing in companies at different stages of corporate development. Of the aggregate Stamps/Woodsum portfolio, 20 of the 24 investments were in established companies and the balance were in early stage firms. The general partners will invest opportunistically, however, and therefore, the actual composition of the Summit Ventures portfolio will be influenced by economic conditions, capital markets, and pricing considerations.

The general partners anticipate that 80% of the Summit Ventures portfolio investments will be in established, technology-based companies that are already profitable, yet have not received any previous venture financing. These investments will include both primary stock purchases and secondary purchases of stock from entrepreneurs. The partners expect that the remaining portfolio company investments will be in young, high technology firms. A few of these investments will be in very early stage, start-up firms, but most will be in growing companies in which products have been developed and marketing efforts have begun.

Location

The general partners have a strong orientation toward investing in the West Coast area. Of the Stamps, Woodsum portfolio, approximately 60% of the total dollars was invested in California. The remainder of the portfolio was broadly diversified, however. Investments were made in portfolio companies located throughout the East Coast, Southeast, Midwest, Rocky Mountain, and Pacific Northwest areas of the country.

The Summit Ventures portfolio will be geographically diversified in much the same manner as the Stamps, Woodsum portfolio. The general partners will maintain their West Coast focus but will continue to invest throughout the country.

Industry Groups

The general partners also exhibit a high-tech focus, investing primarily in the computer and health care industries. The Stamps, Woodsum portfolio investments were distributed evenly among the medical electronics, health care services, computer hardware and peripherals, software, data communications, database, and instrumentation industries. Specific areas of industry concentration for the Summit Ventures portfolio will be similar to those of the Stamps, Woodsum investments.

Other

Stamps and Woodsum originated and led 22 of their 24 portfolio company investments. The general partners will continue their strong emphasis on deal origination with the Summit Ventures portfolio.

VI INVESTMENT MANAGEMENT

Generation Of Investments

A key element in Stamps, Woodsum & Co.'s investment strategy is the active origination of investments which are outside the deal flow of the "mainstream" venture capital community. Opportunities are identified through a well-defined, aggressive program, which includes attending trade exhibits and conferences, reading industry periodicals, and cold calling the CEOs of potential portfolio companies. Stamps and Woodsum target young, growing companies that are already profitable, yet have received no previous venture backing.

Investment Selection

Summit Partners will evaluate a potential investment by examining three critical areas: management, market and product.

Management: The general partners believe that the most important determinant of the success of an investment is the management team. The depth of the team will vary depending upon the size of the company, but at a minimum there must be a strong chief executive with prior profit and loss experience.

Market: The market for the company's product is the second major consideration of the general partners in evaluating an investment opportunity. The market must have sufficient size and potential growth to enable a portfolio company to generate in excess of $30 million in revenues within a three to five year period.

Product: The third major criterion for a successful investment is that the company's product or service be proprietary. While success will not always require that the product incorporate revolutionary technology, there must be a significant competitive advantage.

Before an investment is made, the general partners conduct extensive management and customer reference checks and perform a financial analysis of the investment opportunity. The selection process is described in Section IV: Allocation of Responsibilities.

Negotiation And Structuring Of Investments

Primary stock purchases generally will be in the form of senior securities such as debentures or preferred stock. The securities typically will have redemption provisions and common stock conversion features. Occasionally, the senior securities will be issued in conjunction with options or warrants and whenever appropriate, a current yield on investment will be negotiated. Secondary stock purchases from entrepreneurs generally will be in the form of common stock.

As a policy, the general partners will include a "put" provision in each portfolio company purchase agreement. The "put" right will allow the Fund to sell its stock back to the portfolio company at fair market value on or after a future date, typically seven years after the initial investment date.

Allocation Of Investments Among Funds Under Management

Currently, Stamps, Woodsum & Co. have no other funds under management. In addition, the general partners are prohibited from raising a second fund until Summit Ventures is 75% invested. When a second fund is raised, it will invest on a side-by-side, pro rata, basis with Summit Ventures until the Fund is fully-invested.

Syndication Of Investments

In conjunction with its philosophy of generating deals outside the venture community, Stamps and Woodsum will syndicate investments only if the capital needs of the portfolio company are greater than the Fund can provide or if another venture capitalist has specific skills or expertise which the portfolio company requires.

Monitoring And Management Of Investments

The general partners will lead the majority of the Fund's investments and will most often assume Board seats. They will assist portfolio company management with strategic planning, rather than daily operating issues. The partners' aid to entrepreneurs will include recruiting personnel, structuring compensation systems, identifying markets, securing subsequent financings, and achieving liquidity for shareholders.

Termination Of Investments

The principal methods by which the Fund will realize gains will be the sale of portfolio company securities in the public market or the acquisition of portfolio companies by larger firms. The "put" right negotiated by Stamps, Woodsum & Co. in portfolio company purchase agreements will help to ensure liquidity for Fund investments.

Distribution Of Returns

Annual distributions will be at the discretion of the general partners. The goal of the general partners is to get investor's capital back by year five and thus, they will distribute as much as 100% of annual net income and net capital gains. All distributions will be in the form of cash of liquid securities. The general partners have the option to re-invest the proceeds of liquidated portfolio securities but do not intend to do so.

VII. FUND ADMINISTRATION

Portfolio Valuations

All securities and assets of the Fund will be valued by the general partners with the assistance of the five member Advisory Board, which will be comprised of both limited partner representatives and entrepreneurs previously backed by Stamps and Woodsum. Formal valuations of the Fund's investment portfolio will be made annually as of the close of the fiscal year. The general partners will employ the following principles in valuing portfolio securities:

1) Freely-traded securities for which market quotations are readily available will be valued at the last trade on the exchange where they are primarily traded or, if not traded on an exchange, at the mean of the closing bid and asked prices last quoted by an established over-the-counter quotation service.

2) All other securities and assets will be valued at original cost, cost at latest third party financing, or at conservative earnings multiples (10 times trailing annual earnings or less).

Client Communications

Stamps, Woodsum & Co. will provide quarterly and annual reports and will hold annual meetings for its investors. Quarterly reports will include summaries of new investments and updates on the status of current investments. Annual reports will include the partnership's audited financial statements.

VIII. PARTNERSHIP AGREEMENT

Management Fee

The general partner will receive an annual management fee equal to 2.5% of committed capital. The fees will be payable from partnership income and will not be subject to revision based on inflation.

Director's fees, consulting fees or other renumeration paid by portfolio companies to the general partners or employees of the general partners shall reduce the amount of the annual management fee.

Profit Sharing

All net operating income and losses and all net realized capital gains and losses will be allocated 80% to the limited partners and 20% to the general partners. Limited partners will receive approximately 99% of the Fund's cash flow until the fair market value of all Fund assets equals 125% of committed capital. Income from short-term investments will be allocated entirely on the basis of capital, that is, approximately 99% to limited partners and 1% to general partners, except to offset operating deficits of the Fund.

Additional Expenses Allocated To Limited Partners

The Fund will bear all legal, auditing and accounting fees and expenses, as well as custodial fees, taxes, commissions, brokerage fees, and registration expenses. In addition, the Fund will pay up to $350,000 in organizational expenses.

General Partners' Capital Contribution

The general partners, in aggregate, will make a capital commitment of $425,000 to the Fund. The commitment will be paid in cash.

Term Of Fund

The Fund will have a term of ten years, with options to extend for up to a maximum of four additional years.

Drawdown Of Fund Capital

One quarter of the capital will be contributed on closing and the remainder will be paid in three equal annual installments.

IX. CLIENT BASE

SUMMIT VENTURES LIMITED PARTNERSHIP
INVESTOR LIST
OCTOBER 30, 1984

Closed

	Investment
The American Express Company	$10,000,000
Ameritech Pension Trust	5,000,000
Teamster Affiliates Pension Plan	5,000,000
Delta Air Lines Pension Fund	4,000,000
State of Oregon Pension Fund	4,000,000
3-M Corporation	3,000,000
GT Capital	3,000,000
Duke Power Company Pension Fund	3,000,000
Pacific Lighting Corporation Pension Fund	2,500,000
CIGNA Venture Capital Incorporated	2,500,000
First National Bank of Chicago	2,000,000
Pacific Mutual Life Insurance Company	2,000,000
Liberty Mutual Insurance Company	2,000,000
Square D Pension Fund	2,000,000
Bigler Investments/Crossroads Capital	2,000,000
St. Francis Associates	2,000,000
Hallmark Cards, Inc.	1,500,000
Citizens & Southern Bank	1,000,000
University of Richmond Endowment Fund	1,000,000
Eli Lilly Pension Fund	1,000,000
Mutual Benefit Life Insurance Company	1,000,000
Ameritrust Corporation	1,000,000
Crossroads Capital Limited Partnership	1,000,000
Acacia Mutual Life Insurance Company	1,000,000
Bank of Virginia	1,000,000
Bank of New England	850,000
Diamond Shamrock Chemicals Company	500,000
Murray Pacific V.C. Investment Partnership	500,000
Entrepreneurs/Individuals	6,000,000
	$71,350,000

EXHIBIT I

GENERAL PARTNERS' EXPERIENCE

E. Roe Stamps, IV

Mr. Stamps began his venture capital career in 1974 as an associate with The Palmer Organization, a Boston-based venture capital group specializing in high technology, start-up investments In 1977, he joined First Chicago Investment Corporation, where he invested primarily in larger companies and leveraged buyouts. He also completed a comprehensive study of the hospital management industry, which culminated in First Chicago's involvement in the founding of Universal Health Services, Inc, now a $350 million publicly-traded company

In late 1979, Mr. Stamps joined TA Associates as a general partner, where he served until March of 1984 He invested in diverse companies at TA Associates, and he successfully led the firm's efforts into healthcare and larger investments While at TA Associates, he served as a director of a number of companies, including Capex Corporation; Healthdyne, Inc.; Insurance Systems, Inc, Nautilus Leasing Services, Inc; Nu-Med, Inc; Qualicare, Inc.; Samna Corporation; Scientific Micro Systems, Inc; Softrend, Inc; and Sunrise Medical, Inc

Mr Stamps has been a featured speaker on venture capital at a number of diverse trade associations, conferences and forums and recently was a guest on Financial News Network's "Something Ventured" program

He is a graduate of Georgia Institute of Technology (B I E and M S I E) and the Harvard Business School (M B.A.). He serves as a director of Georgia Institute of Technology's Advanced Technology Development Center

Stephen G. Woodsum

Mr. Woodsum started his business career in 1976 in the First Scholar Program of The First National Bank of Chicago As a First Scholar, he worked in four different areas of the Bank, and gained exposure to many different industries. In 1978, Mr Woodsum was chosen over many applicants for a position with the First Chicago Investment Corporation, where he joined Mr Stamps as an investment analyst There he specialized in early stage technology companies and leveraged buyouts

In 1980, Mr Woodsum joined TA Associates as an associate, and in 1982, he was named a general partner At TA Associates, Mr Woodsum invested in a variety of technology companies at all stages of growth. He has served as a director of a number of companies, including Delta Data Systems Corporation, Information Builders, Inc; Precision Visuals, Inc.; Quality Micro Systems, Inc.; and Radionics, Inc In addition, Mr. Woodsum has been a frequent speaker on venture capital at various industry conferences and seminars

Mr Woodsum is a graduate of Yale University (B.A) and Northwestern University's Graduate School of Business (Masters in Management)

Thomas A. Avery

Business Experience

Robinson Humphrey/American Express Inc., Corporate Finance, 1977-1984
- First Vice President, Investment Banking Division, 1982-1984
- Performed a variety of corporate finance services for technology companies including Advanced Board Circuitries, Advanced Systems, Inc., Computer Products, Inc., DBA Systems, Inc., Data South, Electro-Magnetic Sciences, Jones Intercable, MSA and Samna Corporation.
- Director, Avatar Technologies, Inc.

Education

Harvard Business School, M.B.A., 1977
Georgia Institute of Technology, B.S., Industrial Management, 1975

EXHIBIT II

PORTFOLIO PERFORMANCE

SUMMIT VENTURES, L.P.
INVESTMENT PERFORMANCE OF THE MANAGING PARTNERS
OCTOBER 1978 - FEBRUARY 1983

Initial Investment Date	Company	Business Description	Type Of Security Purchased	Financial Status At Time Of Investment[1]	Total Cost of Investment All Rounds ($000)	Value Upon Sale Of Distributions Prior To 12/31/83[2] ($000)	Value At 12/31/83[3] ($000)	Total Value ($000)	Annual Internal Rate of Return[4] %	Comments, April 1984
February 1984	DH Technology, Inc. Sunnyvale, CA	Dot Matrix Printheads	Common Stock	Profitable	$3,010	-	-	$3,010[5]	-	Currently in registration for initial public offering.
January 1984	VM Software, Inc. Vienna, VA	IBM Systems Software	Common Stock	Profitable	500	-	-	500[5]	-	Very profitable, sales growth in excess of 100% per year.
December 1983	Softrend, Inc. Salem, NH	Integrated Database Software	Convertible Preferred Stock & Options	Early Stage	2,000	-	$2,000	2,000	-	Initial product shipments in Spring 1984.
May 1983	Insurance Systems, Inc. Irvine, CA	Computer Systems	Common Stock	Profitable	6,300	-	6,300	6,300	-	Dominant California supplier, profitable & growing rapidly.
May 1983	Sunrise Medical, Inc. Torrance, CA	Durable Medical Equipment	Common Stock (Preference)	Profitable	1,500	-	4,050	4,050	629.00	Public company.
May 1983	Nu-Med, Inc. Encino, CA	Hospital Management	Common Stock & Convertible Preferred Stock	Profitable	5,000	-	10,088	10,088	312.20	Public company.
February 1983	Data Technology Corporation Santa Clara, CA	Disk Controllers	Common Stock	Profitable	800	-	800	800	-	Industry leader, rapid growth in sales.
December 1982	Samna Corporation Atlanta, GA	Microcomputer Software	Common Stock (Preference)	Early Stage	750 750	- -	2,150 -	2,150 750[5]	186.67 -	Began shipping in mid-1983 rapid revenue growth. Bought in February 1984.
December 1982	Precision Visuals, Inc. Boulder, CO	Graphics Software	Convertible Preferred Stock	Profitable	1,500	-	1,500	1,500	3.50	Growth is currently 100% per year, good profits.
December 1982	Information Builders, Inc. New York, NY	Database Software	Common Stock	Profitable	1,744	-	3,630	3,630	165.75	Very profitable, rapid growth, $30 Million sales.
September 1982	Scientific Micro Systems, Inc. Mountain View, CA	Storage Systems	Common Stock Preferred Stock Warrants	Profitable	14,500	-	18,345	18,345	41.90	High margins, good sales growth, $45 Million sales.
June 1982	Radionics, Inc. Salinas, CA	Alarm Communication Equipment	Common Stock	Profitable	2,500	$1,279	3,844	5,123	61.33	Public company.
December 1981	Wespercorp, Inc. Tustin, CA	Disk and Tape Controllers	Common Stock Convertible Preferred Stock	Profitable	4,000	2,658	2,100	4,758	23.24	Public company.
August 1981	Qualicare, Inc. New Orleans, LA	Hospital Management	Convertible Debentures	Profitable	2,750	6,688	-	6,688	79.89	Sold to Universal Health Services for cash April 1983.

Initial Investment Date	Company	Business Description	Type Of Security Purchased	Financial Status At Time Of Investment[1]	Total Cost of Investment All Rounds ($000)	Value Upon Sale Of Distributions Prior To 12/31/83[2] ($000)	Value At 12/31/83[3] ($000)	Total Value ($000)	Annual Internal Rate of Return[4] %	Comments, April 1984
August 1981	Quality Micro Systems, Inc. Mobile, AL	Graphics Processors for Printers	Common Stock Convertible Debentures	Profitable	4,021	3,380	18,835	22,215	159.17	Public company.
June 1981	Healthdyne, Inc. Marietta, GA	Medical Electronics	Convertible Preferred Stock	Profitable	1,000	5,515	1,946	7,461	162.59	Public company.
June 1981	Delta Data Systems Corporation Trevose, PA	Computer Terminals	Convertible Debentures	Turnaround	1,500	-	3,068	3,068	46.70	Public company.
February 1981	Data I/O Corporation Redmond, WA	PROM Programmers and Testers	Common Stock	Profitable	1,000	3,139	-	3,139	77.17	Public company.
June 1980	Micro Component Technology, Inc. St. Paul, MN	Semiconductor Handling Equipment	Common Stock	Profitable	2,286	-	3,835	3,835	15.93	Industry leader, profitable, steady growth.
May 1980	Capex Corporation Phoenix, AZ	IBM Systems Software	Common Stock Convertible Debentures	Profitable	1,525	6,901	-	6,901	77.50	Merged with Computer Associates International Inc. in August 1982.
February 1980	Brae Corporation San Francisco, CA	Transportation Equipment	Common Stock	Profitable	345	-	292	292	(4.35)	Public company.
January 1980	CMI Corporation Troy, MI	Computer Brokerage and Leasing	Convertible Preferred Stock	Profitable	750	1,222	-	1,222	33.81	Sold to Torchmark Corp. for cash in June 1982.
November 1979	Molecular Genetics, Inc. Edina, MN	Genetic Engineering	Common Stock Preferred Stock	Early Stage	78	839	-	839	97.13	Public company.
March 1979	Universal Health Services, Inc. King of Prussia, PA	Hospital Management	Common Stock Preferred Stock	Early Stage	2,475	15,722	5,803	21,525	72.60	Public company.
			TOTAL:		$62,584	$47,343	$88,586	$140,189		

ANNUAL COMPOUNDED INTERNAL RATE OF RETURN - 72%

(1) Denotes financial condition of portfolio company at time investment was closed.
(2) Denotes cash sales or value of portfolio securities at time of distribution.
(3) The value of securities is calculated as follows:

(a) Public securities are valued at closing bid price on December 30, 1983.
(b) Private securites are valued at original cost, cost at latest third party financing, or at conservative earnings multiples (10 times trailing annual earnings or less).

(4) The Internal Rate of Return on each investment and on the overall portfolio includes dividends and interest received and is calculated as follows:

$$\sum_{t=1}^{N} \frac{C_t}{(1+i)^t} = 0$$

Where C_t equals Cash Flow in each quarter, i is the quarterly IRR. N = total number of quarters, t is the relevant quarter.

The following formula is used to annualize the quarterly returns: $(1+ \text{quarter IRR})^4-1$ = Annualized IRR.

(5) Purchased after December, 1983 and valued at cost.

FIRST CENTURY VENTURE FUND III

I. BACKGROUND DATA

NAME OF FIRM:	Smith Barney Venture Corp. (SBVC)
NAME OF FUND:	First Century III
TYPE OF FUND:	Venture Capital Limited Partnership
DATE OF ON-SITE INTERVIEW:	October 17, 1984
FIRM ATTENDEES:	Mike Myers, Jack Dulaney, Walt Johnsen, Roberto Buaron, Dave Lobel and Byron Adams.
ADDRESS:	1345 Avenue of the Americas New York, NY 10105
TELEPHONE:	(212) 399-6000
CONTACT:	Mike Myers

II. ORGANIZATIONAL STRUCTURE

Smith Barney Venture Corporation (SBVC), a wholly-owned subsidiary of Smith Barney, Harris Upham and Co. (SBHU), is the fund manager and general partner of the proposed Fund, First Century III (FCIII) and two prior venture capital limited partnerships, First Century I (FCI) and First Century II (FCII). SBVC consists of a Board of Directors and an operating staff. SBHU is a large investment banking and financial services firm based in New York. The management of FCI, II and III is the sole activity of the operating staff of SBVC.

III. PERFORMANCE HISTORY

General Partners

Two of the general partners of SBVC, Mike Myers and Jack Dulaney, have worked together over the last 12 years as founding partners and fund managers of Smith Barney's venture capital limited partnerships, FCI, FCII and now FCIII.

The other four general partners have been added to SBVC operating staff since 1978. Their backgrounds, prior to joining SBVC staff, includes management consulting, production and marketing management and financial services positions. For additional information specific to each general partner, biographies are given in Exhibit I.

Portfolio Performance

In 1972, SBHU created SBVC and formed FCI with $11.6 million in contributed capital. FCI was fully invested in 1978 and is currently in the process of liquidating and distributing its assets which should be completed by the end of 1984.

Over the life of FCI (1972 through June 1984), 14 of the original 17 investments have resulted in realized or unrealized gains. Over a third of the investments have gained over ten times their original cost, including Prime Computer, which gained over 50 times, Apple Computer, which gained over 20 times, Valleylab, which gained over 14 times, and Foxmeyer, which gained over 12 times. In total, more than $65 million in cash and securities have been distributed to FCI limited partners through June 30, 1984. Portions of 5 of the original 17 investments, currently valued at $25 million, remain in FCI's portfolio on June 30, 1984. The compound annual rate of return to each of FCI's limited partners, based on capital contributions to the Fund and realized and unrealized gains, over the 12 years from FCI inception through June 30, 1984, was 27%.

FCII was formed by SBVC in 1980 with contributed capital of $21 million. Through June 1984, FCII had invested $17.2 million in 19 companies and distributed $6.3 million in cash and securities to limited partners. The unrealized value of the FCII portfolio on June 30, 1984, was estimated to be $47.2 million. FCII's current portfolio has 8 portfolio companies valued at cost, 8 portfolio companies valued above cost and 3 portfolio companies valued below cost. The compound annual rate of return to each of FCII's limited partners, based on capital contributions to the Fund and realized and unrealized returns, over the 4 years since FCII inception through June 30, 1984 was 45%.

FCI and II portfolio companies are listed in Exhibit II. Valuation policies for portfolio companies are listed on page 7.

IV. STAFF

Staff Composition

SBVC is comprised of a six person Board of Directors and an 11 person operating staff. The Board of Directors includes five senior officers of Smith Barney and one outside director. The operating staff, with offices in New York and San Francisco, includes six general partners, four associates and one investment analyst. Two senior general partners on the operating staff, Mike Myers and Jack Dulaney, are also members of the Board of Directors.

Staff Turnover

Two general partners, four associates and a financial analyst have joined SBVC operating staff within the last 2 years. Within the same time period, one general partner was let go.

Allocation Of Responsibilities Among Staff Members

The Board of Directors of SBVC will approve strategy, policy and investment recommendations.

The general partners of SBVC operating staff will be individually responsible for specific portfolio company investments from origination through management/monitoring and disposition. Mike Myers and Jack Dulaney divide their time between working on their individual portfolio company assignments, overseeing the operation of the Fund as a whole and helping other SBVC general partners with their individual portfolio company assignments.

Compensation And Incentive Systems

SBVC operating staff receives 10 1/2% out of the 20% general partners carried interest. SBHU will be allocated the remaining 9 1/2%.

For individual members of SBVC operating staff, there are several levels of compensation. First, all members receive a base salary which is comparable to the top salaries paid to corporate finance officers of SBHU. Second, each person can receive a performance bonus which can represent up to 100% of their base salary. Third, individuals can purchase SBHU stock and a portion of the general partners carried interest via a below market rate loan from SBHU for 50% of the total purchase price. Finally, individuals are allowed to invest in Partnership portfolio companies only if they invest pro-rata with the Partnership in every company and every round of financing.

Affiliations With Research Organizations And Consultants

SBVC utilizes SBHU's investment sales, corporate finance and investment research divisions for the identification and analysis of many venture capital investments.

In addition, SBVC uses, on occasion, the services of independent consultants. Some of the consulting organizations used in the past for technical research purposes include Channing and Weinberg, Dataquest and Quantum Research.

The Partnership will have three Outside Advisors unaffiliated with Smith Barney. The principal function of the Outside Advisors will be to approve or revise the annual year-end valuations of Partnership investments recommended by the general partner. Subject to the approval of the limited partners, P. Anthony Jacobs, Senior Vice President of Business Men's Assurance Company of America; Richard N. Stillman, Vice President and Treasurer of Stauffer Chemical Company (retired); and T. Walton Storm, formerly head of General Electric's venture capital operation (retired); have agreed to serve as Outside Advisors. These individuals are also the Outside Advisors to FC I and II.

Co-Investment Network

SBVC has developed working relationships with many venture capitalists throughout the country. Some of SBVC's frequent co-investors include Adler and Company, Bessemer Venture Partners, Capital Management, Fidelity Venture Associates, Greylock Management Corporation, Idanta Partners, New Enterprise Associates, Patricof Associates and Sutter Hill Ventures.

V. INVESTMENT STRATEGY

Corporate Stage Of Development

SBVC has traditionally adopted an early stage investment strategy with approximately two-thirds of portfolio company investments initially made in the start-up or first round financing stages of an investee company's stage of development. Other investments have been made principally in an investee company's later stages of development. Leveraged buyouts and investments in emerging growth public securities have historically comprised less than 10% of SBVC investments.

FCIII will follow essentially the same strategy with regards to corporate stage of development as that followed in FCI and II.

Location

Although FCI and II invested nationwide, more than 60% of Fund investments were on the East and West coasts. SBVC has offices in New York and San Francisco.

FCIII will follow essentially the same geographic pattern of investment as FCI and II.

Industry

The investments in FCI and II's portfolio's cover a broad range of industries. Approximately two thirds of the portfolio companies are involved in high technology fields including primarily electronics and computer-related products in addition to robotics, telecommunications and medical products. The other third of portfolio companies are involved in non-technology fields, including companies in health care services, specialty retailing, specialty chemicals, consumer products, building products and energy exploration, among others.

FCIII will follow essentially the same industry investment pattern as in FCI and II with the only change being the exclusion of energy companies from investment consideration.

Other

In order to maintain control of and add value to portfolio companies, SBVC has been a lead investor and member of the Board of Directors for the majority of portfolio companies in FCI and II. In the most recent partnership, FCII, SBVC was lead investor for over 70% of portfolio companies.

VI. INVESTMENT MANAGEMENT

Generation Of Investments

SBVC will obtain investment leads for the Partnership from contacts its operating staff has within and outside the venture capital community, and from the management of new and small companies who have been financed by SBVC in the past or who are aware of SBVC's reputation in the venture capital business. In addition, approximately 25% of investment opportunities have been introduced to SBVC through SBHU's sales, corporate finance, and research networks.

Investment Selection

When screening and analyzing potential investments, SBVC will emphasize the following criteria:

1. Proven and experienced management teams.
2. Proprietary product/service in sizeable and growing product markets.
3. Demonstrated marketing capability and proven technological expertise of management.
4. High potential returns. Startup investments should return 5-10 times the original investment. Second round financings should be able to return 3-5 times the original investment.

All potential investment opportunities are assigned to individual staff members for screening relative to the investment criteria cited above. The investments that pass through this screen are reviewed at weekly staff meetings where decisions are made on which of them should be pursued and what issues need to be resolved (i.e., what product, market, management, and financial analysis are required). Teams of at least two staff members are then assigned to each investment opportunity selected for further review.

The next step in the evaluation process is to review the progress of each investment analysis at subsequent staff meetings, determine whether to proceed further with each project, and , if so, decide whether to modify the evaluation effort in order to deal with any new issues uncovered through the work done to date. The final steps are to complete each evaluation, reach a decision on whether an investment should be made, write a summary report to the Venture Corp. Board that includes the rationale for, and analysis behind, any recommendation, and review that report in detail with the Board when it is making the final investment decision.

Negotiation And Structuring Of Investments

SBVC will, in most cases, purchase senior common or convertible preferred stock to give preference during a liquidation or merger of a portfolio company investment. Investments are also structured to provide anti-dilution features, registration rights, information rights, Board seats, representations and warranties. In addition, redemption rights are written into investment contracts to provide exit or "put" rights after an approximate six to eight year holding period.

Allocation Of Investments Among Funds Under Management

Since FCI and II are fully invested and not seeking new investments, all new investments will be allocated to FCIII. A new Fund will not be raised until FCIII is fully invested.

Syndication Of Investments

Investments will be syndicated with co-investors who are well known to SBVC, who will be actively involved in an investment and who are able to participate, through sufficient reserves, in each round of financing.

Monitoring And Management Of Investments

For the majority of portfolio company investments, SBVC will typically review monthly financial statements, meet with management prior to each quarterly Board of Directors meeting and attend Board meetings. In addition, the person assigned to the portfolio company will write quarterly status reports on their companies.

Direct assistance is typically rendered to portfolio companies in specific areas, such as management compensation and stock option plans, external financings, acquisitions, audit reviews, and executive replacement and recruitment.

Termination Of Investments

The Partnership's capital is expected to be fully invested by the end of the sixth year of its 12-year life. Once this fully invested position has been attained, the Partnership expects to substantially cease making new investments, and the

Venture Corp.'s staff will concentrate on monitoring existing portfolio companies and on seeking liquidation opportunities for portfolio company investments.

SBVC will prepare for termination of an investment before the initial investment is made. The expectations and objectives of portfolio company entrepreneurs and SBVC must coincide with regards to eventual liquidation of investments. In most cases, Partnership investments will be disposed of through public or private sales of securities or mergers into another company. In limited cases, redemption or "put" rights may be exercised.

Distribution Of Returns

Upon liquidation of a portfolio company investment, SBVC will distribute, to limited partners, cash or freely tradeable securities. SBVC has the option to re-invest the proceeds of liquidated portfolio securities, but does not intend to do so.

VII. FUND ADMINISTRATION

Portfolio Valuations

Formal valuations of each security in the Partnership's portfolio will be made annually by the Venture Corp. Board of Directors, subject to the approval of the Outside Advisors. The following guidelines will be applied:

1. Marketable securities listed on a national securities exchange will be valued at their closing sale price.

2. Marketable securities traded over-the-counter will be valued at their closing bid price, or, in certain cases, at a discount from the closing bid price to reflect either relatively large holdings of the company's securities by the Partnership or relatively limited trading in those securities.

3. Restricted securities (securities not freely marketable, but part of a class of securities listed on a national securities exchange or traded over-the-counter) will be valued at a discount from the securities values in category 1 or 2 to reflect their limited marketability.

4. All other securities and assets will be valued at cost or at a fair value that appropriately reflects their limited marketability and other relevant factors.

Client Communications

An annual report will be distributed to limited partners within 120 days of the end of each calendar year. The annual report will include a description and valuation of each investment, along with statements of the Partnership's investment operations, assets and liabilities, changes in net assets, and a report of the Partnership's auditors. Un-audited quarterly Partnership progress reports will be sent to the limited partners within 60 days after the conclusion of each calendar quarter.

VIII. PARTNERSHIP AGREEMENT

Management Fee

SBVC will receive an annual management fee from the Partnership equal to 2 1/2% of the Fund's net asset value up to $100 million, 1 1/2% of the Fund's net asset value from $100 to $200 million, and 7/8% of the Fund's net asset value greater than $200 million. Fees are payable from Partnership income.

Profit Sharing

During the life of FCIII, 80% of the Partnership's net ordinary income and net capital gains will be allocated to the limited partners and to the general partner in proportion to their capital contributions. The remaining 20% of the net income and capital gains will be allocated to the general partner as an incentive profit allocation. The general partner's incentive profit allocation will be accrued, but will not be distributed to the general partner if distributions to the general partner exceed its cummulative incentive profit allocation.

Additional Expenses Allocated To Limited Partners

In addition to the management fee, the Partnership will responsible for its legal fees, outside advisors' fees, costs directly related to the purchase or sale of securities, and the direct expenses incurred in organizing the Partnership including possible commissions paid to SBHU and/or its employees (not to exceed $400,000 in the aggregate).

General Partners' Capital Contribution

The general partners of SBVC will invest, in cash, 1% or $1 million of total contributed capital. In addition, SBHU will make a cash investment of $2.5 million in the Fund as a limited partner.

Term Of Fund

The Fund will have a life of twelve years extendable for three one-year periods.

Drawdown Of Fund Capital

25% of capital commitments will be paid at the initial closing, and the remainder will be taken down in three equal installments as required, with 30 days notice from the general partner.

IX. CLIENT BASE

CAPITAL COMMITMENTS AS OF NOVEMBER 14, 1984

Allen-Bradley Pension Trust	$ 2.5 million
Business Men's Assurance Company of America	4.0
Diglame Finance Limited	5.0
Equitable Life	4.0
F.H. Prince and Co. Inc.	1.0
Fibeg, Fissler Beteiligungs Gmbh.	1.0
Getinot Securities S.A., Luxembourg	1.0
General Electric Pension Trust	7.5
International Flavors and Fragrances	2.0
Kaiser Foundation	4.0
Manufacturers Hanover	3.0
Mayo Foundation	1.5
New Yorker Magazine	2.0
Norsk Hydro	2.0
The Northern Trust Company	3.0
Northwest Mutual Life	7.5
Pacific Mutual	2.0
Pearl Century Company	5.0
Smith Barney Harris and Upham	2.5
Stichting Philips Pensioenfonds B	1.0
Sony Corporation of America Pension	3.5
Venkay Company	12.5
Vensa Company	11.5
Wisconsin Alumni Research Foundation	1.0

	$90.0 million

EXHIBIT I

GENERAL PARTNERS' EXPERIENCE

Operating Staff

Michael J. Myers is a Senior Vice President of Smith Barney. He is the President and a Director of both the Venture Corp. and Smith Barney Capital Corp Mr. Myers is also a general partner of First Century Company, the general partner of First Century II. Mr. Myers joined Smith Barney's Venture Group in 1972 and has had senior operating responsibility for that group since 1976. Prior to 1972, he spent three years with J.H. Whitney & Co., a private venture capital firm. Mr. Myers is a Director of Entré Computer Centers, Inc., Floating Point Systems, Inc., Iomega Corporation, L. Perrigo Company, and Mobex Corporation Mr Myers has a MBA from Harvard University, a J.D from George Washington University, and a B.S. from the University of Illinois.

John S. Dulaney, , is a Senior Vice President and Director of Smith Barney. He is also the Chairman of the Venture Corp., the Chairman of Smith Barney Capital Corp., and the general partner of First Century Partnership. Mr. Dulaney has had overall responsibility for Smith Barney's venture business since 1968. Previously, he spent five years with McKinsey & Co. Inc., management consultants Mr. Dulaney is a Director of Berwind Corp., Prime Computer, Inc., and Zymark Corporation.

Roberto Buaron is a First Vice President of Smith Barney and a general partner of First Century Company. Mr Buaron joined Smith Barney's Venture Group in May 1983. Previously, since 1974, he was employed by McKinsey & Co. Inc., and was a partner of that firm, concentrating on technology clients, from 1980 through April 1983. Mr Buaron was also associated with Texas Instruments, Inc., in various semiconductor product and marketing management capacities from 1970 through 1973. He has a Ph D in electronics from Politecnico of Milan (Italy), a MBA from Insead (France), and a MBA from Harvard University.

Walter C. Johnsen is a Vice President of Smith Barney and a general partner of First Century Company He joined Smith Barney's Venture Group in June 1978 and is currently responsible for its venture capital operations on the West Coast. He was previously employed by Pfizer, Inc., as a production supervisor Mr Johnsen is a Director of Gavilan Computer Corp. and ViewTech Corporation He has a MBA from Columbia University and holds MS and BS degrees from Cornell University

David S. Lobel is a Vice President of Smith Barney and a general partner of First Century Company Prior to joining Smith Barney's Venture Group in April 1981, he was employed for three years at Bain & Co., management consultants, working primarily on corporate strategy projects Mr Lobel is a Director of Mosaic Technologies, Inc. He holds MBA and MS degrees from Stanford University

Byron K. Adams, Jr. is a Vice President of Smith Barney and a general partner of First Century Company He joined Smith Barney's Venture Group in July, 1983 Previously, from 1979 until July 1983, he was associated with Bain & Co., most recently as President of a Bain entity established to make small company acquisitions Mr Adams was also employed by Citibank in the financial area from 1976 through 1978. Mr Adams is a Director of Integrated Measurement Systems, Inc He has a MBA from Stanford University and a BA from Princeton University

EXHIBIT II

PORTFOLIO PERFORMANCE

First Century Partnership
Portfolio Company Investment Performance
December 31, 1983
(Dollars in thousands)

Company	Cost	Proceeds to Date	Year-End Reported Value	Total Proceeds Plus Value	Gain (Loss) Dollars	Gain (Loss) Percent	Return Multiple
Prime Computer Inc.	$ 791	$19,115	$23,246	$ 42,361	$41,570	5,255%	53.6x
Apple Computer Inc.	500	10,133	0	10,133	9,633	1,927	20.3
Valleylab, Inc.	960	13,501	0	13,501	12,541	1,306	14.1
Applicon, Inc.	582	7,291	0	7,291	6,709	1,153	12.5
FoxMeyer Corp.	807	3,934	5,650	9,584	8,777	1,088	11.9
Floating Point Systems, Inc.	404	1,382	2,672	4,054	3,650	903	10.0
Storage Technology Corp.	1,000	6,290	0	6,290	5,290	529	6.3
Colorcon, Inc.	503	1,816	0	1,816	1,313	261	3.6
CPL, Inc.	240	0	756	756	516	215	3.2
L. Perrigo Company	1,018	2,787	0	2,787	1,769	174	2.7
Mobex Corp.	759	131	1,500	1,631	872	115	2.1
Dickey-john Corp.	360	544	0	544	184	51	1.5
Marketables (7 Companies)	1,736	2,095	0	2,095	359	21	1.2
Marline Oil Corp.	750	137	750	887	137	18	1.2
Omnilease Corp.	1,000	890	0	890	(110)	(11)	0.9
American Challenger Corp.	875	0	0	0	(875)	(100)	0.0
Cott Beverages Corp.	875	0	0	0	(875)	(100)	0.0
Total (Reported)	**$13,160**	**$70,046**	**$34,574**	**$104,620**	**$91,460**	**695%**	**7.9x**
Discounts From Market in Values Reported Above							
Prime Computer, Inc.				5,811	5,811		
FoxMeyer Corp.				997	997		
Floating Point Systems, Inc.				297	297		
Total (Mark-to-Market)				**$111,725**	**$98,565**	**749%**	**8.5x**

EXHIBIT II

PORTFOLIO PERFORMANCE

First Century Partnership II
Portfolio Company Investment Performance
December 31, 1983
(Dollars in thousands)

Company	Cost	Proceeds to Date	Year-End Reported Value	Total Proceeds Plus Value	Gain (Loss) Dollars	Gain (Loss) Percent	Return Multiple
Entre Computer Centers, Inc.	$ 885	$ 0	$22,125	$22,125	$21,240	2,400%	25 0x
Masstor Systems Corp.	1,107	4,983	814	5,797	4,690	424	5.2
CPL, Inc.	490	0	1,543	1,543	1,053	215	3.1
Gavilan Computer Corp.	750	0	2,410	2,410	1,660	221	3.2
Syntrex Inc.	799	2,432	0	2,432	1,633	204	3.0
Telesis Corp.	650	0	1,625	1,625	975	150	2.5
Domain Technologies	985	0	2,310	2,310	1,325	135	2.3
Zymark Corp.	875	0	1,898	1,898	1,023	117	2.2
MiniScribe Corp.	440	0	930	930	490	111	2 1
Iomega Corp.	1,213	0	2,426	2,426	1,213	100	2.0
American Healthcorp., Inc.	777	113	1,290	1,403	626	81	1.8
Citation Oil & Gas Corp.	1,250	0	1,250	1,250	0	0	1.0
Lexitel Corp	983	0	983	983	0	0	1 0
Mosaic Technologies Corp.	800	0	800	800	0	0	1.0
Viewtech Corp	750	0	750	750	0	0	1 0
IPL Systems, Inc.	250	190	0	190	(60)	(24)	0 8
Osborne Computer Corp	1,701	0	1	1	(1,700)	(100)	0 0
Total (Reported)	**$14,705**	**$7,718**	**$41,155**	**$48,873**	**$34,168**	**232%**	**3.3x**
Discounts From Market in Values Reported Above							
Entré Computer Centers, Inc.				11,062	11,062		
Iomega Corp.				1,017	1,017		
MiniScribe Corp.				164	164		
Masstor Systems Corp.				405	405		
Total (Mark-to-Market)				**$61,521**	**$46,816**	**318%**	**4.2x**

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Aetna Life and Casualty Company
FUND NAME:	Real Estate Separate Account (RESA)
CONTACT:	Tom Anathan
ACCOUNT INCEPTION:	10/81
SBI COMMITMENT:	$40 Million
SBI CURRENT INVESTMENT:	$40 Million

INVESTMENT DESCRIPTION: RESA is an open-end commingled real estate fund formed in January, 1978. The Fund invests primarily in existing equity real estate diversified by location and property type. On-site property management is primarily contracted to outside firms or conducted by a joint venture partner. The Fund has no termination date, although investors have the option to withdraw all or a portion of their investment.

RESA CURRENT PORTFOLIO COMPOSITION

PROPERTY MARKET VALUE	# OF PROPERTIES	LOCATION	%	PROPERTY TYPE	%
$1.1 Billion	121	East	15%	Office	41.%
		Midwest	12	Retail	27
		South	25	Industrial	27
		West	48	Hotel	4
				Residential	1
				Other	0

INVESTMENT ACTIVITY-LAST QUARTER

ACQUISITIONS $	ACQUISITIONS #	DISPOSITIONS $	DISPOSITIONS #
$128.1 M	7	$8.1 M	2

UNIT VALUE RETURNS

	LAST QUARTER	LAST FOUR QUARTERS	FIVE YEAR AVERAGE
RESA	2.5	15.4	14.5
EAI Composite Median	2.6	13.1	13.8
CPI (Inflation)	1.2	4.2	7.1

STAFF COMMENTS: For the year ending September 30, 1984, Aetna's 15.4% total rate of return was composed of 9.4% income and 6.0% appreciation. This return outperformed the inflation rate and the EAI Real Estate Composite Fund Median. The seven properties acquired during the quarter include two regional shopping centers, which reflect a transition in the portfolio retail component from neighborhood strip centers to regional centers. The Fund also acquired its first apartment complex, purchased on a forward commitment basis with a guaranteed yield. The Fund manager anticipates an eventual 10-15% commitment to apartments, with an anticipated 5-7 year holding period for these properties. The Fund also made its second construction loan, a $12 million takedown for the development of a $100 million office building in New York City which provides a guaranteed yield and eventual conversion to partnership interest. The current high cash position (15%) is attributed to a $350 million backlog in pending deals and is anticipated to be reduced to 7-8% by the end of the quarter.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Equitable Real Estate Group, Inc.
FUND NAME:	Separate Account #8
CONTACT:	Harry Pierandri
ACCOUNT INCEPTION:	10/81
SBI COMMITMENT:	$40 Million
SBI CURRENT INVESTMENT:	$40 Million

INVESTMENT DESCRIPTION: Equitable Separate Account #8 is an open-end commingled real estate fund formed in August 1973. The Fund invests primarily in existing equity real estate diversified by location and property type. On-site property management is primarily contracted to outside firms or conducted by joint venture partners. The Fund has no termination date although investors have the option of withdrawing all or a portion of their investment.

SEPARATE ACCOUNT #8 CURRENT PORTFOLIO COMPOSITION

PROPERTY MARKET VALUE	# OF PROPERTIES	LOCATION	%	PROPERTY TYPE	%
$2.3 Billion	235	East	26%	Office	43%
		Midwest	17	Retail	33
		South	36	Industrial	12
		West	21	Hotel	11
				Residential	0
				Other	1

INVESTMENT ACTIVITY-LAST QUARTER

ACQUISITIONS $	ACQUISITIONS #	DISPOSITIONS $	DISPOSITIONS #
$2.2 M	1	$0.8 M	1

UNIT VALUE RETURNS

	LAST QUARTER	LAST FOUR QUARTERS	FIVE YEAR AVERAGE
Separate Account #8	2.6	18.3	14.0
EAI Composite Median	2.6	13.1	13.8
CPI (Inflation)	1.2	4.2	7.1

STAFF COMMENTS: For the year ending September 30, 1984, Equitable's 18.3% total rate of return was comprised of 7.1% income and 11.2% appreciation. The 18.3% return outperformed the inflation rate and the EAI Composite Fund Median. Similar to the second quarter, the volume of completed investment transactions during the last quarter is low, with the purchase of one $2.2 million office warehouse and sale of an $800,000 office building. However, there are currently $275 million in outstanding commitments including the joint venture development of $180 million multi-use complex in Boston. This reflects the manager's stated intention of increasing the joint venture/development activity of the Fund. An additional $75 million is currently being spent in capital improvements in existing holdings. The fund manager also reports a major property sale currently in progress.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
June 30, 1984

FIRM NAME:	Prudential Investment Management Corporation
FUND NAME:	PRISA I
CONTACT:	Don Davis
ACCOUNT INCEPTION:	9/81
SBI COMMITMENT:	$40 Million
SBI CURRENT INVESTMENT:	$40 Million

INVESTMENT DESCRIPTION: PRISA I is an open-end commingled real estate fund formed in July 1970. PRISA invests primarily in existing properties diversified by location and property type. On-site property management is primarily contracted to outside firms or is conducted by joint venture partners. The Fund has no termination date, although investors have the option quarterly to withdraw a portion or all of their investment.

PRISA CURRENT PORTFOLIO COMPOSITION

PROPERTY MARKET VALUE	# OF PROPERTIES	LOCATION	%	PROPERTY TYPE	%
$4.4 Billion	464	East	25%	Office	57.0%
		Midwest	15	Retail	17.0
		South	24	Industrial	17.0
		West	36	Hotel	7.5
				Residential	4.5
				Other	3.0

INVESTMENT ACTIVITY-LAST QUARTER

ACQUISITIONS $	ACQUISITIONS #	DISPOSITIONS $	DISPOSITIONS #
$0	0	$115.9 M	11

UNIT VALUE RETURNS

	LAST QUARTER	LAST FOUR QUARTERS	FIVE YEAR AVERAGE
PRISA	3.4	14.5	14.6
EAI Composite Median	2.6	13.1	13.8
CPI (Inflation)	1.2	4.2	7.1

STAFF COMMENTS: For the year ending September 30, 1984, PRISA's 14.5% total rate of return was comprised of 8.3% income and 6.2% appreciation. This return outperformed the inflation rate and the EAI Real Estate Composite Fund Median. There were no acquisitions during the quarter. PRISA sold nine small industrial properties with average sales proceeds of $1.6 million. The Fund also sold a $100 million office building for slightly less than its original purchase price after a three year holding period. PRISA's dispositions reflect its strategy to sell its smaller and/or underperforming holdings. The geographic and property type distribution of the portfolio was not substantially altered during the quarter. PRISA still has a relatively large cash component (13.6%), a strategic decision to enable the Fund to acquire properties larger than $200 million in size.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Heitman Advisory Corporation
FUND NAME:	HAC Group Trust I
CONTACT:	David Glickman
ACCOUNT INCEPTION:	6/14/84
SBI COMMITMENT:	$20 Million
SBI CURRENT INVESTMENT:	$6.0 Million

INVESTMENT DESCRIPTION: HAC Group Trust is a $113 million real estate Group Trust formed in May 1984. Term of the Fund is fifteen years with optional extensions. The Fund is investing primarily in equity real estate diversified by location and property type. Centre Properties, Ltd., an affiliate of Heitman manages all 100% owned properties.

HAC GROUP TRUST I INVESTMENTS (AT COST)				CASH RETURNS TO SBI		
CURRENT TOTAL		LATEST QUARTER				
#	$	#	$	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
0	0	0	0	0	0	0

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	0.0%	Fully Developed	0.0%	Office	0.0%
Midwest	0.0	Partially Developed	0.0	Retail	0.0
South	0.0			Industrial	0.0
West	0.0			Hotel/Motel	0.0
				Apartments	0.0
				Other	0.0

STAFF COMMENTS: As of September 30, 1984, none of the Fund capital has been invested. In the last quarter of 1984, Heitman will close on three properties for the Fund. The properties include the First Bank Place West office building in Minnesota, a regional shopping center in Oklahoma and a package of industrial properties in Florida. In total, the three properties will represent approximately 60% of Fund capital. Heitman is currently working on two additional investments which could utilize all of the remaining Fund capital. The Fund is expected to be fully invested by March of 1985. Once the Fund is 80% invested, Heitman will begin offering subscriptions to a new Fund, Heitman Group Trust II.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Rosenberg Real Estate Equity Funds (RREEF)
FUND NAME:	RREEF USA III
CONTACT:	Paul Sack
ACCOUNT INCEPTION:	4/25/84
SBI COMMITMENT:	$75 Million
SBI CURRENT INVESTMENT:	$8.0 Million

INVESTMENT DESCRIPTION: RREEF USA III is expected to be, on the final closing date of December 31, 1984, a $1 billion commingled real estate Group Trust. Term of the Fund is twelve years with optional extensions. The Fund is investing primarily in unleveraged, wholly-owned, equity real estate diversified by location and property type. On-site property management will be conducted by RREEF employees.

RREEF USA III INVESTMENTS (AT COST)				CASH RETURNS TO SBI		
CURRENT TOTAL #	CURRENT TOTAL $	LATEST QUARTER #	LATEST QUARTER $	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
1	$29.75 Million	1	$29.75 Million	0	0	0

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	0.0%	Fully Developed	100.0%	Office	0.0%
Midwest	0.0	Partially Developed	0.0	Retail	100.0
South	0.0			Industrial	0.0
West	100.0			Hotel/Motel	0.0
				Apartments	0.0
				Other	0.0

STAFF COMMENTS: On September 30, 1984, RREEF USA III had capital commitments of $643 million. At the final closing date for Fund subscriptions (December 31, 1984), RREEF expects to have raised $1 billion in capital commitments. Currently, the Fund has an investment in one property, a $29.7 million shopping center located in San Francisco, CA. In the next quarter, RREEF is committed to buy the Fund's second property, a $23.5 million industrial facility in Santa Clara, CA. No other purchase commitments are currently outstanding although RREEF is working on several potential investments for the Fund.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	First Reserve Corporation
FUND NAME:	Amgo I
CONTACT:	Jon Hill
ACCOUNT INCEPTION:	July 1981
SBI COMMITMENT:	$15 Million
SBI CURRENT INVESTMENT:	$15 Million

INVESTMENT DESCRIPTION: Amgo I is a $144 million oil and gas Limited Partnership formed in July 1981. Term of the Fund is 20 years. Investment strategy of Amgo I is to provide a diversified portfolio of investments in terms of geographic locations, geological structures, investment types and operating companies.

AMGO I INVESTMENTS (AT COST)				CASH RETURNS TO SBI		
CURRENT TOTAL		LATEST QUARTER				
#	$	#	$	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
27	$123.2 Million	4	$10.2 Million	$144,000	$576,100	$1,907,000

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	SECURITY INTEREST	%	INDUSTRY GROUPS	%
Texas	21.0%	Proved Developed Reserves	47.0%	Acreage	7.4%
Oklahoma	21.7	Probable Reserves	0.0	Drilling	11.7
Louisiana	18.3	Possible Reserves	5.0	Equity	7.5
Rocky Mtns.	13.2	General Recourse	48.0	Production	30.6
Mississippi	7.9			Royalty	16.2
California	7.7			Surface Facilities	0.0
Gulf Coast	5.8			Conv. Note and Preferred	26.0
New Mexico	1.6			Other	0.6
Other	2.8				

STAFF COMMENTS: Amgo I, originally capitalized at $144 million, has, as of September 30, 1984, committed to 27 oil and gas investments for $123.2 million. During the latest quarter ended September 30, Amgo committed to four new investment representing approximately 7% of total Partnership capital. First Reserve, Amgo's Fund manager, is currently working on four additional new investments. The completion of any two of these investments could exhaust Amgo's uncommitted funds. Upon commitment of remaining funds, First Reserve is planning on forming Amgo III.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME: First Reserve Corporation
FUND NAME: Amgo II
CONTACT: Jon Hill
ACCOUNT INCEPTION: February 1983
SBI COMMITMENT: $7 Million
SBI CURRENT INVESTMENT: $5.25 Million

INVESTMENT DESCRIPTION: Amgo II is a $36 million oil and gas limited partnership formed in December 1982. Term of the Fund is 19 years. Investment strategy of Amgo II is to provide a diversified portfolio of investments in terms of geographic locations, geological structures, investment types and operating companies.

AMGO II FUND INVESTMENTS (AT COST)				CASH RETURNS TO SBI		
CURRENT TOTAL #	CURRENT TOTAL $	LATEST QUARTER #	LATEST QUARTER $	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
9	$21.4 Million	3	$5.7 Million	$66,800	$165,100	$204,300

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	SECURITY INTEREST	%	INDUSTRY GROUPS	%
Texas	27.6%	Proved Developed Reserves	35.0%	Acreage	0.0%
Oklahoma	13.4	Probable Reserves	0.0	Drilling	0.0
Louisiana	12.6	Possible Reserves	0.0	Equity	20.6
Rocky Mtns.	14.5	General Recourse	65.0	Production	28.0
Gulf Coast	20.2			Royalty	0.0
New Mexico	3.7			Surface Facilities	0.0
Other	7.9			Conv. Note and Preferred	51.4
				Other	0.0

STAFF COMMENTS: As of September 30, 1984, Amgo II has committed $21.4 million (nine investments) of the Fund's original capitalization of $36 million. In the latest quarter ended September 30, Amgo II coinvested on a pro rata basis with Amgo, $5.7 million of Fund capital. Except for a single write-up, all of Amgo II's investments are carried at cost.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Apache Corporation
FUND NAME:	10% Equipment Financing Notes
CONTACT:	Charlie Hann
ACCOUNTINCEPTION:	May 1984
SBI COMMITMENT:	$30 Million
SBI CURRENT INVESTMENT:	$262,878

INVESTMENT DESCRIPTION: The Apache Corp. 10% Equipment Financing Notes are a $200 million private placement to finance Apache's portion of production facility expenditures under the terms of a series of offshore joint ventures in the Gulf of Mexico organized by Shell Oil Company. In addition to fixed interest payments of 10% per annum, noteholders will receive additional interest of 2% of Apache's share of gross revenues from the joint ventures. Principal and interest on the notes are estimated to be repaid by 1992. The 2% additional interest will be paid to noteholders throughout the life of producing properties.

10% EQUIPMENT FINANCING NOTE INVESTMENTS (AT COST)				CASH RETURNS TO SBI		
CURRENT TOTAL		LATEST QUARTER				
#	$	#	$	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
1	$1.7 Million	1	$1.7 Million	$12,328	$12,328	$12,328

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	SECURITY INTEREST	%	INDUSTRY GROUPS	%
Texas	100.0%	Proved Developed Reserves	100.0%	Acreage	0.0%
Louisiana	0.0	Probable Reserves	0.0	Drilling	0.0
Other	0.0	Other	0.0	Production	100.0

STAFF COMMENTS: So far, seven prospects are indicated to be productive in the Apache/Shell joint venture. Development is in progress at one of these (High Island Block A-6) where a platform is on location and is being equipped for production. This prospect is expected to commence production during the first quarter of 1985. Apaches share of equipment expenditures have totalled $1.7 million for this development project. In the next quarter, no additional equipment expenditures are anticipated. Development work has been delayed recently due to poor market conditions for gas and a concentration by Shell on exploration. Longer term, however, equipment expenditures will accelerate rapidly as the Shell/Apache joint venture makes the transition from an exploration to a development mode. Already, new development work is planned to commence on at least three additional prospects during 1985.

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Kohlberg, Kravis, Roberts and Co. (KKR)
FUND NAME:	1984 Investment Partnership (KKR III)
CONTACT:	George Roberts
ACCOUNT INCEPTION:	March 21, 1984
SBI COMMITMENT:	$25 Million
SBI CURRENT INVESTMENT:	$5.1 Million

INVESTMENT DESCRIPTION: KKR III is a $1 billion leveraged buyout limited partnership formed in March 1984. The term of the Fund is twelve years with optional extensions. Investment focus of KKR III will be on stable and mature, cash generating, low technology companies with diversified operations.

KKR III INVESTMENTS (AT COST)				CASH RETURNS TO SBI		
CURRENT TOTAL		LATEST QUARTER				
#	$	#	$	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
2	$5.1 Million	2	$5.1 Million	$30,223	$30,223	$30,223

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	44.0%	Leverage Buyouts	100.0%	Conglomerates	100.0%
Midwest	0.0	Other	0.0	Other	0.0
South	56.0				
West	0.0				

STAFF COMMENTS: During the latest quarter ended September 30, 1984, KKR acquired two companies, Cole National and Malone and Hyde, which represent approximately 20% of the Fund's original capitalization of $1.0 billion. Cole National is comprised of three main segments: toy supermarkets, specialty retailing, and key duplicating service departments. Malone and Hyde is comprised of two main segments, food distribution and specialty retailing. In addition, KKR has bids outstanding for four separate subsidiaries of City Investing Corporation. The bids, if successful, could represent an additional 30% of Fund capital. The four subsidiaries of City Investing for which KKR has bid are Rheem Manufacturing (air conditioners, water heaters), Uarco Inc. (business forms), World Color Press (commercial printing) and Motel 6 (discount motels).

ALTERNATIVE INVESTMENT MANAGER INFORMATION
September 30, 1984

FIRM NAME:	Norwest Venture Capital Management, Inc.
FUND NAME:	Norwest Venture Partners I (NVPI)
CONTACT:	Dan Haggerty
ACCOUNT INCEPTION:	1/12/84
SBI COMMITMENT:	$10 Million
SBI CURRENT INVESTMENT:	$7 Million

INVESTMENT DESCRIPTION: NVPI is a $60 million venture capital limited partnership formed in January 1984. Term of the Fund is 10 years with optional extensions. Investment focus of NVPI will be on high technology private companies in the early stages of development. The Fund will not invest in leveraged buyouts.

NVPI I INVESTMENTS				CASH RETURNS TO SBI		
CURRENT TOTAL #	CURRENT TOTAL $	LATEST QUARTER #	LATEST QUARTER $	LATEST QUARTER	LAST FOUR QUARTERS	CUMULATIVE SINCE INCEPTION
21	$9.8 Million	1	$0.19 Million	0	0	0

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF TOTAL FUND COST)

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	11.0%	Early Stage Financing	83.0%	Computer Related	61.0
Midwest	40.0	Expansion Financing	17.0	Machinery/Equipment	0.0
South	7.0	Bridge Financing	0.0	Industrial/Manufacturing	1.0
West	42.0	Leverage Buyouts	0.0	Consumer Products/Services	0.0
				Communications	11.0
				Energy Related	7.0
				Medical Related	17.0
				Other	3.0

STAFF COMMENTS: During third quarter 1984, Norwest Venture Partners invested $25,000 in the seed round financing of Performance *Semiconductor Corp., which* Norwest led along with Brentwood Assoc. Norwest also made a total of $166,000 in follow-on investments to two of its portfolio companies, ANA Tech and Dynamic Disk. In addition, the firm made a $1 million commitment to the first round financing of Performance Semiconductor, which will take place in 4Q 84. With the exception of Phaze Information Machines, which was written down to 52% of its cost in 2Q 84, Norwest's portfolio investments continued to be valued at cost. Although Norwest assumed a more conservative investment position in the third quarter, directing attention and funding to companies already in its portfolio, the firm's investment activity may pick up in 4Q 84 as attractive later-stage opportunities are found.

MINNESOTA STATE BOARD
OF INVESTMENT
MEETING

December 12, 1984

&

INVESTMENT ADVISORY COUNCIL
MEETING

December 11, 1984

AGENDA

STATE BOARD OF INVESTMENT
MEETING

Wednesday, December 12, 1984

1:30 P.M.

Room 118

State Capitol
Saint Paul

		TAB
1.	Approval of Minutes of September 5, 1984 meeting	
2.	Executive Director's Report:	
	A. Quarterly Investment Review	A
	1) Basic Retirement Funds	
	2) Post Retirement Fund and Other Investment Funds	
	B. Portfolio Statistics	B
3.	Appointment of New Investment Advisory Council Members	C
4.	Update on the Council of Institutional Investors	
5.	Report from Investment Advisory Council Committees	
	A. Administrative Committee	D
	1) 1985 Legislative Proposals	
	2) Annual Report	
	3) Transfer of Custody of the Supplemental Investment Funds and Variable Annuity Fund to State Street Bank	
	B. Asset Allocation Committee	E
	1) Asset Mix Recommendations for the Post Retirement Fund	
	C. Equity Manager Committee	F
	1) Review of equity manager performance	
	D. Fixed Income Manager Committee	G
	1) Fixed Income Manager Decision Guidelines	
	E. Alternative Investment Committee	H
	1) Report on the progress of the implementation of the alternative investment program and request for approval to participate in two venture capital partnerships	

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

MINUTES
STATE BOARD OF INVESTMENT
September 5, 1984

The State Board of Investment met on Wednesday, September 5, 1984 at 10:00 A.M. in Room 118 of the State Capitol. Governor Rudy Perpich, State Auditor Arne H. Carlson, Secretary of State Joan Anderson Growe, State Treasurer Robert W. Mattson and Attorney General Hubert H. Humphrey III were present.

The minutes of the May 23, 1984 and June 6, 1984 meetings were unanimously approved.

Executive Director's Report

Mr. Bicker reviewed the quarterly report for the Basic Retirement Funds. The total rate of return for the Basic Retirement Funds for the second quarter was -1.8% due to the continued weakness of both the stock and bond markets. Mr. Bicker outlined the progress of the Small Business Finance Agency Program. He also discussed the Council of Institutional Shareholders proposed by California State Treasurer Jesse Unruh, and stated that he would keep the Board informed about its development.

Investment Advisory Council Report

Judith Mares, Chair of the Investment Advisory Council, reviewed the work of the Council committees. She reported that the Council supported the Administration Committee's recommendation to approve the proposed Board budget, which includes a reduction in five staff positions. She stated that the Committee would examine staff composition in the upcoming months. Ms. Mares also discussed the format change in the Annual Report. She stated the Administration Committee will review performance of the Master Custodian.

Ms. Mares reviewed the recommendations of the Asset Allocation Committee regarding the impact of the Rule of 85 on the cash flow of the Basic Retirement Funds. The Committee recommended that implementation of the long-term asset allocation targets, including commitments to alternative investments, be continued as scheduled. Cash should be raised from four sources: index fund dividends, liquidation of private placements and short-term bonds, and withdrawal of a small portion of the funds managed by the external bond managers. Ms. Mares stated that the Council concurred with these recommendations. She also stated that the Committee will examine the investment structure of the Post Retirement Fund in view of its changing characteristics. Mr. Bicker stated that discussions had begun to establish a dedicated bond portfolio to take care of payment liabilities while investing the balance to provide benefit increases.

Ms. Mares discussed the work of the Equity Managers Committee. The Committee has created three categories for monitoring the equity managers: "normal", "watch", and "probation". Five managers were placed in the "probation" category; four due to their performance relative to the Board's expectations, one due to a change in ownership. Ms. Mares stated that firms will be placed in the "watch" category if circumstances develop, such as the loss of clients or personnel, which may signal future problems. Firms in the "normal" category are those that have met the Board's expectations. Mr. Bicker reviewed the Evaluation Associates report on the equity managers and a staff report on the implementation of the index fund. The Council concurred with the conclusions regarding the index fund. Mr. Carlson stated that the shared responsibility among the Board and Council for reviewing manager performance and deciding to hire or fire managers raises the issue of staff accountability. He stated that Mr. Bicker has the power to fire a manager today if he so decides. Ms. Mares stated that the committee will examine the role of the investment staff.

Ms. Mares reported that the Fixed Income Manager Committee reviewed the funding and monitoring procedures for the external bond managers. She also discussed the recommendations of the Alternative Investment Committee, including the need to develop performance indices, and the introduction of additional monitoring procedures. She stated the third phase of the real estate manager program, the retention of specialty managers, would be completed by June of 1985. The committee recommended that the Board not participate in any direct real estate development or individual transactions. The committee also recommended that the venture capital investment program be accelerated, due to the current favorable environment, and completed within 6-12 months. The committee recommended resource investments proceed over the next 1-2 years as scheduled. Ms. Mares stated that the Council concurred with the committee recommendations. In response to a question from Mr. Carlson, Mr. Bicker stated that he agreed with the decision regarding venture capital due to the return of many seasoned veterans to the market.

Escheated Property

Mr. Bicker reviewed the recommendation of the State Arts Board regarding the placement of the opera recordings. Assistant Attorney General Mike Miles stated that escheated property must be first offered to other state agencies, which would include the University of Minnesota. Mr. Carlson moved that the recordings be put under the jurisdiction of the University. James A. Perkins, representing the Chatfield Brass Band, emphasized that the collection should not be disbanded and should be made available to the public. He recommended the Chatfield Lending Library as a depository for the recordings. Attorney General Hubert H. Humphrey III moved that the collection of opera recordings currently housed in the State Treasurer's Office be declared state "surplus property" with the stipulations that 1) the collection be kept intact; 2) no charge be levied for its use to the greatest extent possible; and 3) it be kept open and available to the public. The motion passed on a unanimous vote.

The meeting adjourned at 10:35 A.M.

Respectfully submitted,

Howard Bicker

Howard J. Bicker
Executive Director

AGENDA

INVESTMENT ADVISORY COUNCIL
MEETING

Tuesday, December 11, 1984
2:30 P.M.

MEA Building - Conference Room "A"
41 Sherburne Avenue
Saint Paul

		TAB
1.	Approval of Minutes of September 4, 1984 meeting	
2.	Executive Director's Report:	
	A. Quarterly Investment Review 1) Basic Retirement Funds 2) Post Retirement Fund and Other Investment Funds	A
	B. Portfolio Statistics	B
3.	Appointment of New Investment Advisory Council Members	C
4.	Update on the Council of Institutional Investors	
5.	Report from Investment Advisory Council Committees	
	A. Administrative Committee 1) 1985 Legislative Proposals 2) Annual Report 3) Transfer of Custody of the Supplemental Investment Funds and Variable Annuity Fund to State Street Bank	D
	B. Asset Allocation Committee 1) Asset Mix Recommendations for the Post Retirement Fund	E
	C. Equity Manager Committee 1) Review of equity manager performance	F
	D. Fixed Income Manager Committee 1) Fixed Income Manager Decision Guidelines	G
	E. Alternative Investment Committee 1) Report on the progress of the implementation of the alternative investment program and request for approval to participate in two venture capital partnerships	H

EXECUTIVE DIRECTOR
HOWARD J BICKER

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

REVISED - November 6, 1984

MINUTES
INVESTMENT ADVISORY COUNCIL
September 4, 1984

The Investment Advisory Council met on September 4, 1984 at 2:30 P.M. at the Minneapolis Club.

Members Present: Judith Mares, Chair; John Allers, Verona Burton, Gordon Donhowe, Ken Gudorf, Malcolm McDonald, Gary Norstrem, Mike Rosen, Joseph Rukavina, Harvey Schmidt, Deborah Veverka, and Richard Hume.

Members Absent: Paul Groschen, Ray Vecellio, and Jan Yeomans.

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

Others Attending: Deborah Feist, Paul Hayne, Andrea Kircher, Mike Miles and Mike Ousdigian.

The minutes of the June 5, 1984 meeting were approved.

DISCUSSION OF COUNCIL MINUTES

The Council discussed the amount of detail included in its minutes. Mr. Bicker stated that the current method was designed to give the Board additional insight into Council deliberations. The Council decided to retain its current practice.

EXECUTIVE DIRECTORS REPORT

Mr. Bicker reviewed the quarterly report for the Basic Retirement Funds. The total rate of return during the second quarter was -1.8%, due to the decline in both the stock and bond markets. During the quarter, the external equity managers outperformed the market, but in aggregate, have underperformed since inception. Mr. Bicker reported that the performance had been strong in 1981 and 1982 relative to the tax exempt universe, but weak in 1983 due to the external equity managers.

Mr. Bicker briefly reviewed the Post Retirement Fund and other funds under management, and stated that the asset allocation of the Post Retirement Fund would be reviewed in detail over the upcoming months. Mr. Bicker also discussed the equity manager updates and portfolio statistics. He noted the decline in cash flow to the Basic Retirement Funds as the result of the passage of the Rule of 85.

In response to a question from Mr. Norstrem, Mr. Bicker stated that all aggressive stock managers have had a difficult time in the recent markets. Mr. Donhowe stated that the types of aggressive managers hired by the Board produce inherently unstable returns. In answer to a question from Mr. Rukavina regarding the Rule of 85, Mr. Bicker stated that there may be a rush of teacher retirements at the end of the school year. Mr. Allers noted the impact for PERA was not as dramatic because they previously had the Rule of 90.

In response to a question from Ms. Mares, Mr. Miles, Assistant Attorney General, reviewed a memorandum on the personal liability and indemnification of the members. In response to a question from Mr. McDonald, Mr. Miles noted that the prudent person rule governing Board investments is not the same standard contained in ERISA.

In response to a question from Mr. McDonald regarding the external equity managers, Mr. Ryan, Evaluation Associates, stated that the performance should be viewed in the context of the whole portfolio. He noted that the common stock index fund and bond component are key factors in the overall investment program.

COMMITTEE REPORTS

ADMINISTRATION COMMITTEE

Mr. McDonald reviewed committee recommendations regarding the annual report, staff organization and budget. The committee concurred with the proposed budget decrease in five staff positions. Mr. McDonald stated that future discussions would focus on the direction of the staff, including its size responsibility and hiring needs. Mr. Bicker stated that the committee would also review the Master Custodian.

ASSET ALLOCATION COMMITTEE

Mr. Donhowe discussed the impact of the Rule of 85 on the cash flow to the Basic Retirement Funds. The committee recommended that implementation of the long term asset allocation targets, including commitments to alternative investments, be continued as scheduled. The committee recommended that cash be raised from four sources: index fund dividends, liquidation of private placements and short-term bonds, and withdrawal of a small portion of the assets managed by the external bond managers.

Mr. Donhowe also reviewed the committee's discussions regarding the long-term asset allocation of the Post Retirement Investment Fund. He stated that committee will recommend that a portion of the fund be placed in a dedicated bond portfolio to ensure the basic level of benefits. The remainder of the fund would be invested to provide a certain level of benefit increases for retirees. The committee will continue to discuss the precise details of this proposed investment strategy in view of the risk-return preferences of retirees. Mr. McDonald stated that the strategy may not be as desirable if interest rates fall dramatically. Mr. Bicker stated the issue would be the focus of extensive Council discussions.

Mr. Donhowe stated that the committee is considering the desirability of market timing strategies for the Basic Retirement Funds, and asked corporate pension plan representatives to submit their opinions to the staff.

In response to a question from Mr. Schmidt regarding the Variable Annuity Fund, Mr. Bicker stated that the Board and Council would focus on the asset allocation of the remaining funds following the completion of the study on the Post Retirement Fund. He noted that the anticipated $1 billion positive cash flow into the Fund over the next 2 years makes the study especially important at this time. Mr. Allers moved approval of the Asset Allocation Committee report. The motion passed unanimously. Mr. Norstrem moved approval of the Administration Committee report. The motion passed unanimously.

EQUITY MANAGER COMMITTEE

Ms. Veverka reviewed the monitoring procedures for the equity managers established by the committee. The committee has created three categories, "Probation", "Watch" and "Normal" for monitoring managers. Ms. Veverka discussed the five managers placed in the probation category: Siebel, BMI Capital, Herbert R. Smith, Loomis Sayles, and Trustee and Investor. Siebel was placed on probation due to concern about the recent purchase of the firm; the remaining managers have had poor investment performance. Managers in the probation category will not receive new contributions.

Ms. Veverka reported that five managers, Fred Alger, Forstmann & Leff, Hellman Jordan, IDS Advisors, and Investment Advisors have been placed in the "Watch" category. Ms. Veverka stated that managers are included in the watch category due to concerns about performance, diversification, or personnel turnover. Mr. Bicker stated that inclusion in the watch category does not indicate total dissatisfaction with a firm, but that it merits further scrutiny.

Ms. Veverka stated that the Committee was satisfied with the staff report on the construction of the index fund. Mr. Donhowe stated that the execution of the fund was outstanding.

Mr. Ryan, Evaluation Associates, reviewed each of the external equity managers. Mr. Donhowe asked the committee to discuss the investment of the assets upon the firing of a manager. Mr. Gudorf requested that the performance of all 15 managers be presented on one page. He also requested data on the performance of the SBI portfolio compared to the other portfolios managed by the firms. Mr. McDonald stated that a time period over which to evaluate the managers needs to be established. Mr. Bicker noted that there are very few guidelines in the investment community regarding the appropriate time period for evaluation relative to the firing of managers. Ms. Veverka stated that since the managers were retained, there has not been an up market, and the Board should examine the managers performance in both down and up cycles. Mr. Rosen suggested that the Board retain managers who are successful in both bear and bull markets. Mr. Bailey noted that most management firms have not been in existence for two market cycles.

Mr. McDonald moved to accept the Equity Manager Committee report. The motion passed unanimously.

FIXED INCOME COMMITTEE

Mr. Norstrem reported that the Fixed Income Committee had reviewed the guidelines for monitoring equity managers, and requested that staff make changes that apply specifically to fixed income managers. The guidelines will be reviewed at the next meeting.

Mr. McDonald moved approval of the Fixed Income report. The motion passed unanimously.

ALTERNATIVE INVESTMENT COMMITTEE

Mr. Gudorf presented the report of the Alternative Investments Committee. He stated that the committee recommended against investment in specific transactions or direct deals. Mr. Gudorf discussed the difficulty of evaluating investment performance of the managers, particularly in venture capital and oil and gas in which the failed investments will emerge early and the successes later. He stated the committee will focus on the cash returns for venture capital, real estate, and oil and gas. Mr. Gudorf also stated the committee will meet with the firms the Board has retained and analyze individual investments within their portfolios.

Mr. Gudorf outlined the commitment schedule for each area. He stated that additional real estate commitments would be made by June of 1985, and the committee would look to the staff and Evaluation Associates to screen potential managers. The committee encouraged additional commitments to venture capital due to the present attractive market. Mr. Gudorf stated he does not anticipate additional leveraged buyout commitments. Mr. Gudorf also stated the committee will seek additional resource investments. He noted that the amount already committed to that area has not been drawn down by the investors, and so the Board falls below its target allocation.

Mr. McDonald stated that mortgage-backed fixed income investments may be appropriate for the Post Retirement Fund. He also stated that the Board may want to work with Minnesota corporate pension funds to develop a pooled investment approach to investments in Minnesota.

Mr. Allers moved approval of the Alternative Investment Committee Report. The motion passed unanimously.

In response to a question from Mr. Allers, Mr. Bicker stated that the Fred Alger leveraged buyout of Levitz had not been formally adopted.

Mr. Bicker outlined the escheated property issue on the Board agenda to Council members.

The meeting adjourned at 4:30 P.M.

Respectively submitted,

Howard Bicker

Howard J. Bicker
Executive Director