MINNESOTA STATE BOARD OF INVESTMENT MEETING

MARCH 5, 1986

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INVESTMENT ADVISORY COUNCIL MEETING

MARCH 4, 1986

AGENDA

STATE BOARD OF INVESTMENT
MEETING

Wednesday, March 5, 1986
9:00 A.M.

Room 118
State Capitol

Saint Paul

	TAB
1. Approval of Minutes of December 4, 1985 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. Report from Investment Advisory Council Committees:	
A. Administrative and Asset Allocation Committees	C
1. Auditor's Report	
2. Independent performance evaluation	
3. RFP's for consultant & GIC's	
B. Equity Manager Committee	D
1. Fourth Quarter review of equity managers	
2. Performance-based fees	
C. Alternative Investment Committee	E
1. Report on implementation of alternative investment program	
2. T. Rowe Price IPO Service AMGO III	
4. Report from South Africa Task Force	F

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

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

MINUTES
STATE BOARD OF INVESTMENT
DECEMBER 4, 1985

The State Board of Investment met on Wednesday, December 4, 1985 at 8:40 A.M. in Room 118 of the State Capitol. Governor Rudy Perpich, Chair, Secretary of State Joan Anderson Growe, State Treasurer Robert W. Mattson, State Auditor Arne H. Carlson, and Attorney General Hubert H. Humphrey III were present.

The minutes of the October 4, 1985 Board meeting were unanimously approved.

EXECUTIVE DIRECTOR'S REPORT

Howard Bicker, Executive Director, reviewed the asset allocation and investment performance of the Basic Retirement Funds. The total rate of return for the year ending September 30, 1985 was 15.2%. Mr. Bicker reported the external equity managers slightly underperformed the Wilshire 5000 for the year. The external bond managers performed in line with the Merrill Lynch Master Bond Index for the year. Mr. Bicker noted that net cumulative withdrawals for calendar year 1985 equalled $67 million, due in large part to the early retirements under the Rule of 85.

Mr. Bicker reported that contributions to the Post Retirement Fund equalled $84 million during the third quarter. Mr. Bicker discussed the change in the composition of the dedicated bond portfolio, in which callable corporate bonds were sold and replaced by various non-callable issues.

INVESTMENT ADVISORY COUNCIL REPORT

Jan Yeomans, member of the Investment Advisory Council, presented the Council report:

ADMINISTRATIVE COMMITTEE

Ms. Yeomans presented the Committee's recommendations for the Board's 1986 legislative program. She outlined the proposals regarding changes in the Permanent School Fund and the Minnesota Supplemental Investment Fund. Mr. Carlson moved approval of the legislative proposal. The motion passed unanimously.

Ms. Yeomans also presented a draft of the Board's 1986 Annual Report.

ASSET ALLOCATION COMMITTEE

Ms. Yeomans stated that the Committee has reviewed and endorsed the proposed changes in the Minnesota Supplemental Fund, and will provide assistance in the development of the investment options if the legislation passes.

EQUITY MANAGER COMMITTEE

Ms. Yeomans reported that the performance of the equity managers is meeting expectations. She also discussed the recent SEC approval of performance-based fees, and stated the Committee will examine how to implement incentive fees for the Board's managers. Ms. Yeomans stated that the addition of a value manager would be postponed pending the resolution of the fee issue. In response to a question from Mr. Carlson, Mr. Bicker stated that an incentive fee proposal would be presented to the Board at its March meeting, and an additional manager retained during the next fiscal year. Ms. Yeomans stated that her company is also examining performance fees. In response to a question from Mr. Carlson, Ms. Yeomans stated that each manager is evaluated according to a specific benchmark.

FIXED INCOME MANAGER COMMITTEE

Ms. Yeomans stated that the Committee reviewed the managers' performance and found no cause for concern. She stated that staff is closely monitoring one manager which has recently experienced significant growth. The Committee also reviewed the contract with Bankers Trust regarding the management of the dedicated bond portfolio, and recommends renewal of the contract. Ms. Yeomans also discussed the staff's report on the Federal Farm Credit System, and the Committee concurred with the recommendation that up to 10% of the portfolio be invested in obligations of the system. Mr. Carlson moved approval of the renewal of the Bankers Trust contract. The motion passed unanimously.

ALTERNATIVE INVESTMENT COMMITTEE

Ms. Yeomans reviewed the existing commitments to real estate, venture capital, and resource investments, and stated that the Committee is focusing on monitoring the portfolio. The Committee is also examining how to handle stock distributions from its venture capital investments.

SOUTH AFRICA TASK FORCE

Mr. Bicker reviewed the report of the South Africa Task Force. He stated that the Task Force recommends the retention of Evaluation Associates to conduct the financial analysis of proposed divestment action. The Task Force has retained the services of the Interfaith Center on Corporate Responsibility as

directed by the resolution. The Committee is scheduled to meet on January 2, 1986 to review the completion of Phase I of the resolution.

Mr. Kiedrowski reviewed the activities of the Task Force. In response to a question from Mr. Carlson, Mr. Bicker discussed the procedures for the retention of consultants, and stated that the Board's contract with an outside financial consultant would be rebid in 1986. He stated that the Evaluation Associates contract would be increased by $10,000 to cover the additional analysis required by the resolution, and the Interfaith Center contract equalled $5,500. In response to a question from Mr. Carlson, Mr. Bicker stated that a representative of the pension systems serves on the Task Force. Mr. Bicker stated that the pension funds and general fund will pay for the services.

In response to a series of questions from Mr. Carlson, Mr. Kiedrowski stated that the Task Force has postponed the consideration of the index fund until after the Board's policy has been implemented for the actively managed portfolio. Mr. Kiedrowski stated that the implementation of the resolution is subject to interpretation. He stated after January 2, the Task Force will consider other portions of the portfolio. Mr. Kiedrowski stated that the issue of the index fund is difficult because the index is supposed to track the market, and to the extent it is altered, you no longer have an index fund. He said the Task Force wants to study the issue in great detail.

In response to a question from Mr. Carlson, Mr. Kiedrowski stated that the Attorney General would be making the legal interpretation regarding the Board's fiduciary responsibility. Mr. Carlson requested the issue of conflict of interest be considered in view of the fact that the Attorney General is represented on the Task Force and will also interpret the Task Force recommendations. Mr. Kiedrowski stated that the majority of Task Force members supported the use of the Attorney General's Office for the legal interpretation, and does not believe there is a conflict of interest. Mr. Kiedrowski stated that the interpretation made by the Attorney General's Office would be on a legal basis regardless of the personal judgements of the individuals. Mr. Carlson stated that the law operates on the basis of a possibility of a conflict of interest, and one does not create a circumstance to allow the conflict to occur. Mr. Carlson requested an outside legal opinion that would not involve potential for a conflict of interest.

Mr. Humphrey commended the work of the Task Force. He stated that there is not a conflict of interest, but if the Board is uncomfortable, he is willing to consider the appointment of outside counsel. Mr. Carlson stated that in sponsoring the resolution, the Attorney General had not been upfront about the cost of the consultants; who would bear the cost; the impact of index fund divestiture; and the potential legal conflict of interest in interpreting fiduciary responsibility. Mr. Humphrey stated that the Board has discussed its fiduciary responsibility, and understands the consequences of its decisions. Mr. Mattson

stated that the Attorney General is the chief legal officer of the State, and he feels very comfortable with the Attorney General's participation. He stated that the representative makes one judgement regarding the implementation of the resolution, and the office will make another judgement purely on legal grounds. Mr. Mattson commended the Attorney General, and recommended the Auditor attend the Task Force meetings.

Mr. Carlson stated that he has never missed a meeting of the State Board of Investment, and because he disagrees with the result does not mean he hasn't participated in the process. He stated his view that the Board took a very bad step in divestiture, and must be very honest about the costs and who will pay these costs. He stated that there is a very distinct possibility that someone will sue the Board. He stated the Board must deal with the issue of independent legal counsel, and the Attorney General's staff and Board are in an awkward position.

Mr. Miles stated that the legislature provided that the Attorney General's office is the chief legal counsel for all State agencies. He stated the issue revolves around the question of whether the legislature was wise in establishing this statutory scheme of having the Attorney General serve as the Board's chief legal counsel. He stated that there is not a statutory conflict of interest.

Mr. Carlson stated that the person who decides the interpretation of the Board's fiduciary responsibility should be free from involvement with any person on the State Board of Investment. Mr. Carlson moved that the Board hold a special meeting prior to January 15, 1986 to discuss the South Africa Task Force Report. There was no second.

The meeting adjourned at 9:25 A.M.

Respectfully submitted,

Howard J. Bicker
Executive Director

AGENDA

INVESTMENT ADVISORY COUNCIL MEETING

Tuesday, March 4, 1986
2:00 P.M.

MEA Building - Gestie Lounge
41 Sherburne Avenue
Saint Paul

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1. Approval of Minutes of December 3, 1985 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. Report from Investment Advisory Council Committees:	
A. Administrative and Asset Allocation Committees	C
1. Auditor's Report	
2. Independent performance evaluation	
3. RFP's for consultant & GIC's	
B. Equity Manager Committee	D
1. Fourth Quarter review of equity managers	
2. Performance-based fees	
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1. Report on implementation of alternative investment program	
2. T. Rowe Price IPO Service AMGO III	
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EXECUTIVE DIRECTOR
HOWARD J. BICKER

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

MINUTES
INVESTMENT ADVISORY COUNCIL
DECEMBER 3, 1985

The Investment Advisory Council met on Tuesday, December 3, 1985 at 2:00 P.M. at the Minneapolis Club.

Members Present: Judith Mares, Henry Adams, James Eckmann, Paul Groschen, Ken Gudorf, James Hacking, Jay Kiedrowski, Gary Norstrem, Joe Rukavina, Ray Vecellio, Jan Yeomans, and Deborah Veverka

Members Absent: Verona Burton, Malcolm McDonald, Mike Rosen, Harvey Schmidt

SBI Staff: Howard Bicker, Jeff Bailey, John Griebenow, Daralyn Peifer, Teresa Myers

Others Attending: Elton Erdahl, Jim Ryan

EXECUTIVE DIRECTOR'S REPORT

Howard Bicker, Executive Director, reviewed the asset allocation and investment performance of the Basic Retirement Funds. The total rate of return for the year ending September 30, 1985 was 15.2%. Mr. Bicker reported the external equity managers slightly underperformed the Wilshire 5000 for the year. The external bond managers performed in line with the Merrill Lynch Master Bond Index for the year. Mr. Bicker noted that net cumulative withdrawals for calendar year 1985 equalled $67 million, due in large part to the early retirements under the Rule of 85.

Mr. Bicker reported that contributions to the Post Retirement Fund equalled $84 million during the third quarter. Mr. Bicker discussed the change in the composition of the dedicated bond portfolio, in which callable corporate bonds were sold and replaced by various non-callable issues.

ADMINISTRATIVE COMMITTEE

Ms. Mares outlined the Committee's discussion regarding the Board's 1986 legislation package. Mr. Bicker reviewed the

proposal to change the investment structure of the Permanent School Fund so that it resembles an endowment fund. He stated that the staff has requested an Attorney General's opinion on the proposed changes.

ASSET ALLOCATION COMMITTEE

Ms. Mares presented the report of the Asset Allocation Committee. Mr. Bicker outlined the proposal to offer additional investment options to participants in the Minnesota Supplemental Investment Fund. In response to a question from Ms. Veverka, Mr. Bicker described the proposed mechanism for participation in a GIC Account. Ms. Mares stated that specific account structures would be discussed after the authorizing legislation was passed. In response to a question from Mr. Groschen, Mr. Ryan, Evaluation Associates, stated that most employees sign up for a guaranted return option.

Ms. Mares also reviewed the 1985 Annual Report. Mr. Bicker commended Mr. Bailey and Ms. Peifer for their work on the report.

EQUITY MANAGER COMMITTEE

Ms. Veverka presented the report of the Equity Manager Committee. She reviewed the recent SEC ruling on incentive fees and stated that staff would present its proposal at the next meeting. Ms. Veverka stated the search for a value manager would be postponed until the incentive fee issue is resolved.

FIXED INCOME COMMITTEE

Mr. Norstrem presented the report of the Fixed Income Committee. He noted that there is some concern about Morgan Stanley, which has experienced substantial growth in the number in the accounts under management.

Mr. Norstrem also reviewed the recent transactions made in the Post Retirement Fund's dedicated bond portfolio to eliminate the call risk. The Committee also recommended that the current contract with Bankers Trust, which provides consulting services related to the dedicated bond portfolio, be extended for an additional year. Mr. Norstrem moved approval of the recommendation to extend the contract. The motion passed unanimously.

Mr. Norstrem also presented staff's report on the Federal Farm Credit System. The Committee accepted staff's recommendation to maintain the same level of investment.

ALTERNATIVE INVESTMENT COMMITTEE

Mr. Gudorf presented the report of the Alternative Investment Committee. He stated that the Committee will focus its attention on monitoring its existing real estate, venture capital, and resource fund managers. He stated that new real estate and resource investments may be made in the next six months. In response to a question from Ms. Veverka, Mr. Bicker stated that there has been interest in the pooled Minnesota real estate and venture capital funds, particularly by small local retirement plans.

Mr. Bicker also outlined a proposal regarding the distribution of stock from the Board's venture capital investments. He stated that staff will be looking into this program.

SOUTH AFRICA TASK FORCE

Mr. Kiedrowski presented the report of the South Africa Task Force. He outlined the implementation of the Board's South Africa resolution. He stated that the Task Force will meet on January 2, 1986 to review the financial and legal analysis of possible divestment of the companies in the Board's actively managed portfolio which have not signed the Sullivan Principles. In response to a question from Ms. Veverka, Mr. Kiedrowski stated that the Task Force is focusing on the actively-managed equity portfolio. Ms. Mares stated the Task Force's actions could result in establishing new standards for performance evaluation. Mr. Ryan stated the financial analysis will evaluate the effect on individual managers.

The meeting adjourned at 3:00 P.M.

Respectfully submitted,

Howard J. Bicker
Executive Director

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MINNESOTA STATE BOARD OF INVESTMENT

BASIC RETIREMENT FUNDS

QUARTERLY INVESTMENT REVIEW

DECEMBER 31, 1985

MINNESOTA STATE BOARD OF INVESTMENT

BASIC RETIREMENT FUNDS

FOURTH QUARTER 1985

Summary

ASSETS

The market value of the Basic Retirement Funds' assets increased 12.6% in the fourth quarter, bringing the Basic Funds' total asset growth for calendar year 1985 to 23.4%. The fourth quarter asset growth was attributable in large part to the exceptional performance of the stock market and, to a lesser extent, the continued positive returns in the bond market. For the first time in several quarters, contributions to the Basic Funds exceeded withdrawals. Net contributions of $4 million in the fourth quarter reduced net withdrawals for the year to $-63 million. End of period market values for the last four quarters and five calendar years are displayed below.

Calendar Year		Market Value (millions)	Percent Change from Previous Period
1980		$1,962	+ 20.6%
1981		2,148	+ 9.5
1982		2,806	+ 30.6
1983		3,129	+ 11.5
1984		3,265	+ 4.4
1985	1Q	3,479	+ 6.6
	2Q	3,691	+ 6.1
	3Q	3,578	- 3.1
	4Q	4,030	+ 12.6

ASSET MIX

The Basic Retirement Funds continued to experience minor shifts in asset class weightings. As in previous quarters, the shifts reflected both the Basic Funds' gradual move toward long-term asset mix targets and the performance of the capital markets. The common stock segment increased in relative size as a result of the extraordinary performance of the stock market. At the same time, bond and cash equivalent weightings decreased and alternative equity assets increased gradually in weighting. This shift is expected to continue throughout 1986 as the implementation of the alternative investment program proceeds. The percentages of the Basic Funds invested in the various asset classes over the last two quarters and the previous year are presented below.

ASSET MIX

	12/31/84	9/30/85	12/31/85
Common Stocks	57.8%	58.2%	61.6%
Bonds	25.9	25.3	23.8
Cash Equivalents*	9.4	8.0	5.1
Alternative Equity Assets	6.9	8.5	9.5
	100.0%	100.0%	100.0%

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

INVESTMENT RETURNS

Both the common stock and bond markets turned in outstanding fourth quarter performances. As a result, the Basic Retirement Funds' total portfolio produced a 12.5% total rate of return for the period. The fourth quarter return boosted total portfolio performance for calendar year 1985 to 25.6%. (Excluding other assets, the Basic Funds' portfolio generated a 13.6% total rate of return for the quarter and a 27.4% return for the year.) These returns are among the highest produced by the total portfolio in recent years.

The Basic Retirement Funds' total portfolio performance exceeded that of the median tax-exempt fund for both the quarter and the most recent year. The Basic Funds' benefitted from their greater than median exposure to common stocks in the strong market advance. The Basic Funds also outperformed the assigned stock/bond/cash composite during the fourth quarter, although they underperformed this benchmark slightly over the calendar year. Total portfolio and asset segment returns for the most recent quarter and year are presented below.

	Total Rate of Return	
	Fourth Quarter 1985	Year Ending 12/31/85
Common Stocks	16.5%	31.4%
Bonds	7.5	21.4
Cash	2.0	8.5
Alternative Equity Assets	2.9	6.8
Total Fund (including alt. assets)	12.5	25.6

EQUITY PERFORMANCE

Responding to positive economic news, the stock market began the fourth quarter with a strong advance. The rally continued throughout the quarter with the market reaching record highs by calendar year-end. The Wilshire 5000 produced a fourth quarter total return of 16.8%, bringing the index's total return for the calendar year to 32.6%.

The fourth quarter market advance was broad-based. The Financial sector was the strongest performing sector. However, weakness in the dollar and continued declines in long-term interest rates aided most industry sectors. Only the Energy sector produced weak returns.

In aggregate, the Basic Retirement Funds' active external equity managers produced a 15.2% total rate of return for the fourth quarter and a 28.7% return for the most recent year. Although several of the managers outperformed the market by significant margins, the managers as a group underperformed the market in both periods. Fourth quarter underperformance was due, in part, to large cash positions held by several managers in the advancing market. In addition, the quarter was a difficult period for managers with value styles. As a group, the managers performed roughly in line with the median TUCS equity manager during both the quarter and year.

The managers' industry sector concentrations remained relatively unchanged. The managers, in aggregate, maintained overweighted positions in the Financial, Transportation and Consumer Durables sectors and underweighted positions in the Capital Goods, Energy, and Utilities sectors.

The index fund continued to track the performance of the Wilshire 5000. The index fund generated a 17.1% total rate of return for the most recent quarter and a 32.5% return for the year.

The Basic Retirement Funds' equity manager returns for the latest quarter and year are presented below.

Total Portfolio Returns

	Fourth Quarter 1985	Year Ending 12/31/85
Fred Alger	18.7%	32.4%
Alliance Capital	17.8	41.7
Beutel Goodman	12.0	21.8
BMI Capital	11.1	17.3
Forstmann Leff	16.3	33.6
Hellman Jordan	18.6	30.8
IDS	19.7	34.6
Investment Advisers	18.5	24.5
Lieber & Company	14.6	33.0
Peregrine Capital	12.8	30.1
Waddell and Reed	10.4	21.7
Internal Manager	12.2	N.A.
Total - External Active Managers	15.2	28.7
Wilshire Associates (Index Fund)	17.1	32.5
Wilshire 5000	16.8	32.6

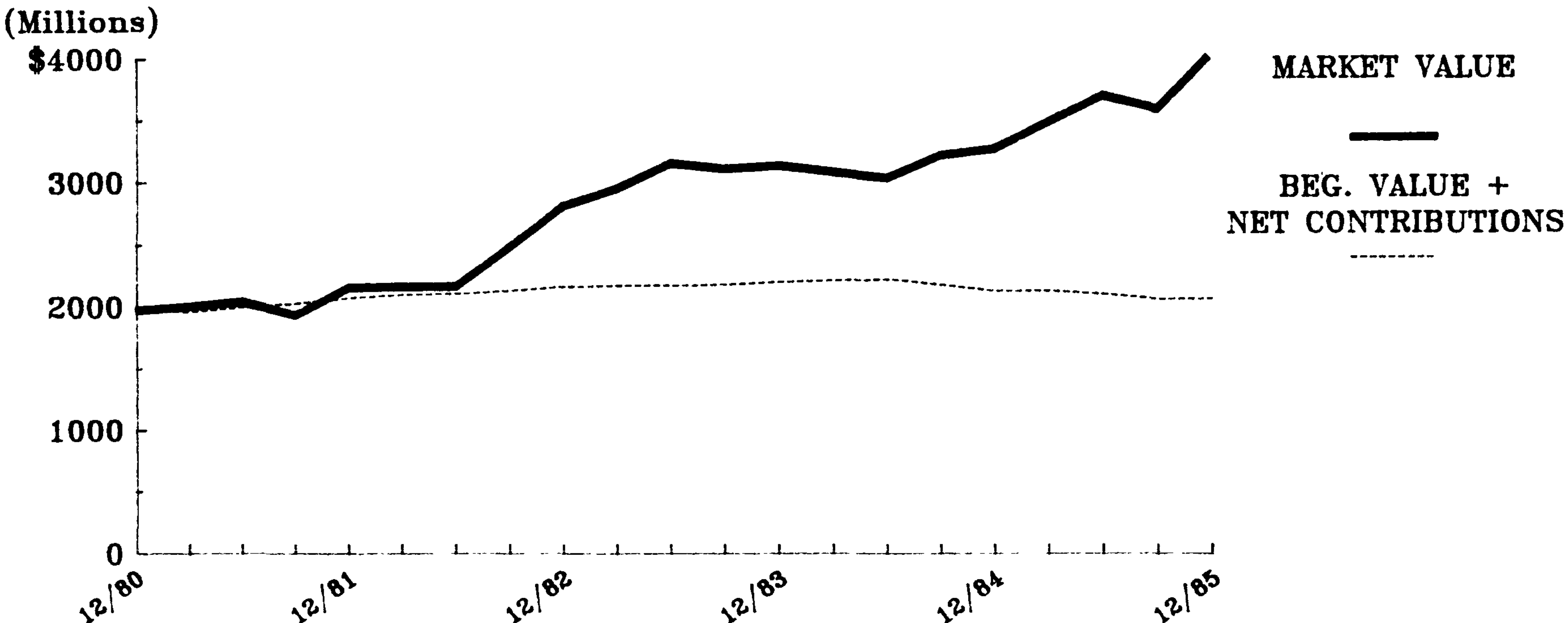
BOND PERFORMANCE

With long-term interest rates continuing their decline, the bond market experienced another good quarter. The market, as represented by the Merrill Lynch Master Bond Index, generated a 7.9% total rate of return for the fourth quarter and a 21.8% return for calendar year 1985. In aggregate, the Basic Retirement Funds' external bond managers performed roughly in line with the bond market during both the fourth quarter and calendar year. The managers outperformed the median TUCS bond manager in both periods.

The Basic Retirement Funds' bond manager returns for the most recent quarter and year are displayed below.

	Total Portfolio Returns	
	Fourth Quarter 1985	Year Ending 12/31/85
Investment Advisers	6.3%	20.9%
Lehman Management	6.5	19.4
Miller Anderson	8.7	22.9
Morgan Stanley	7.7	22.2
Peregrine Capital	5.2	18.6
Western Asset	9.3	24.3
Total - External Managers	7.7	21.8
Merrill Lynch Master Bond Index	7.9	21.8

FIGURE 1



PERIOD ENDING

	12/80	12/81	12/82	12/83	12/84	12/85
BEGINNING VALUE	1,627.1	1,962.0	2,148.8	2,806.2	3,129.0	3,265.0
NET CONTRIBUTIONS	122.7	114.9	91.0	40.0	-77.6	-62.7
INVESTMENT RETURN	212.2	71.9	566.4	282.8	213.6	827.3
ENDING VALUE	1,962.0	2,148.8	2,806.2	3,129.0	3,265.0	4,029.6

(MILLIONS OF DOLLARS)

FIGURE 2

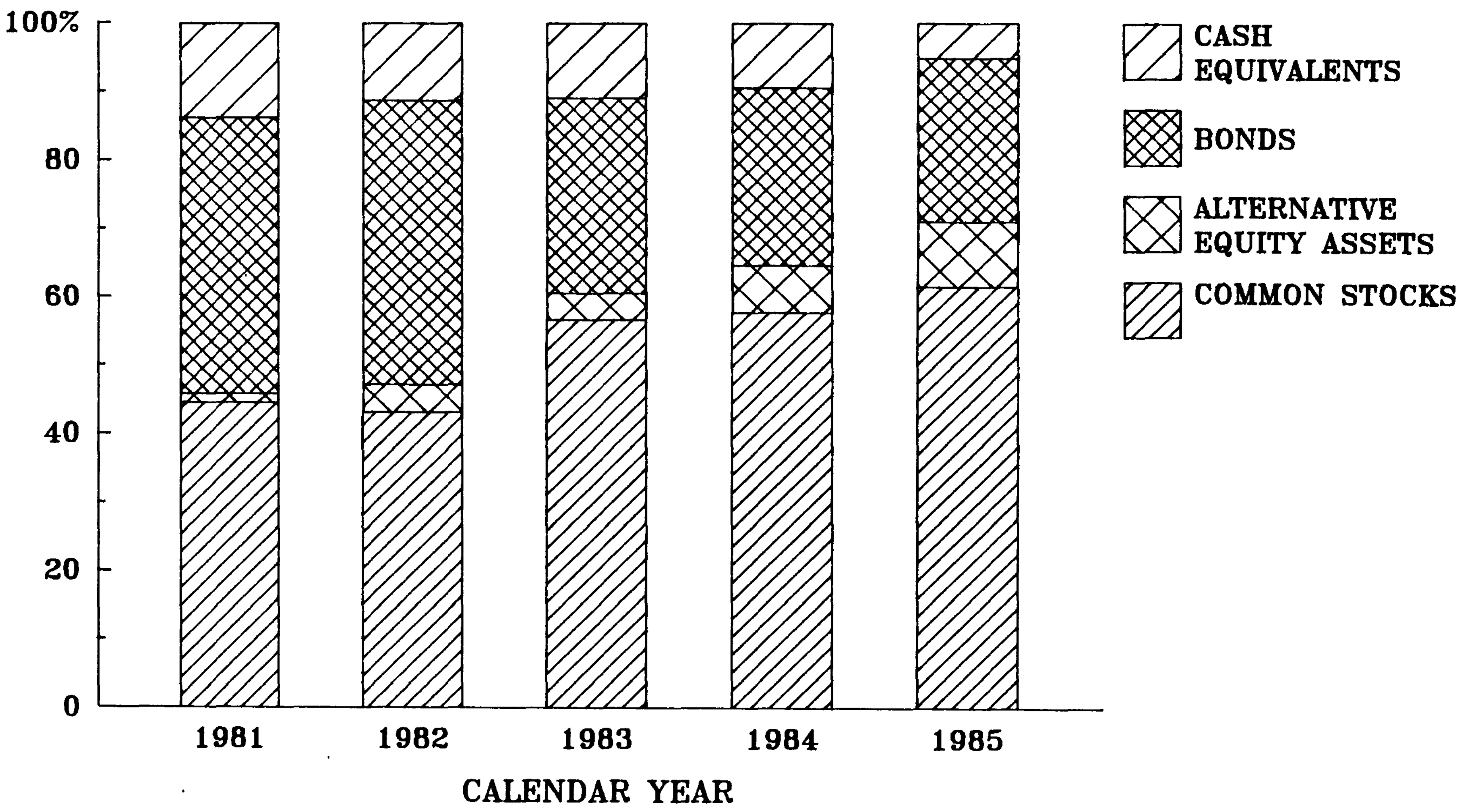


TABLE 1

BASIC RETIREMENT FUNDS
ASSET MIX

PERCENT OF 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
1980		964	49.1	767	39.1	231	11.8	-	-	-	-	-	-
1981		959	44.6	865	40.3	297	13.8	20	0.9	8	0.4	-	-
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		1,887	57.8	847	25.9	308	9.4	178	5.5	23	0.7	22	0.7
1985	1Q	2,055	59.1	845	24.3	335	9.6	194	5.6	25	0.7	26	0.7
	2Q	2,209	59.9	865	23.4	355	9.6	203	5.5	25	0.7	34	0.9
	3Q	2,081	58.2	905	25.3	288	8.0	236	6.6	25	0.7	44	1.2
	4Q	2,481	61.6	961	23.8	204	5.1	288	7.1	47	1.2	49	1.2

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

TABLE 2

BASIC RETIREMENT FUNDS

ASSET MIX - ACTUAL vs. POLICY

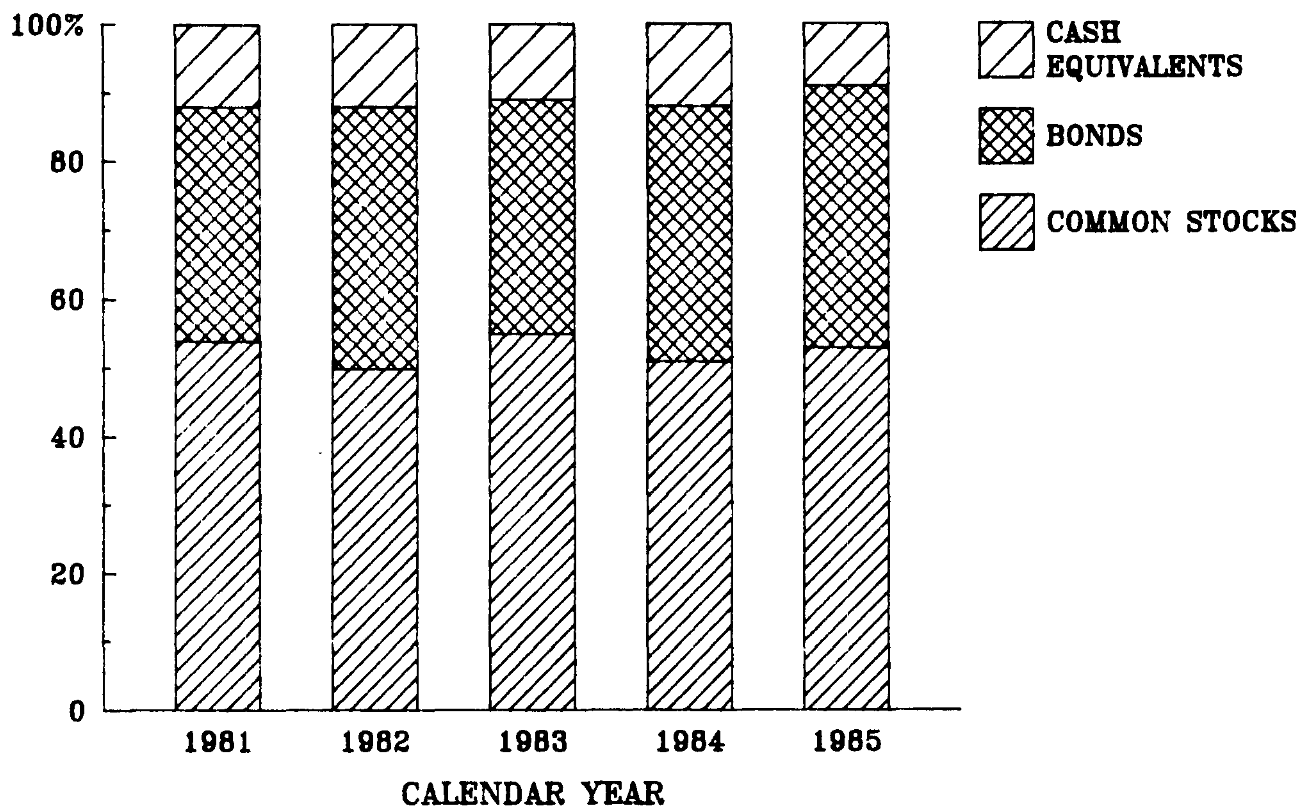
PERCENT OF MARKET VALUE
(End of Period Allocations)

		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.
1983	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
1984	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	42.1	40	+ 2.1	18.0	20	- 2.0	32.7	25	+ 7.7	5.5	10	-4.5	1.7	5	-3.3
1985	1Q	43.0	40	+ 3.0	18.3	20	- 1.7	31.4	25	+ 6.4	5.7	10	-4.3	1.6	5	-3.4
	2Q	43.2	40	+ 3.2	18.7	20	- 1.3	30.7	25	+ 5.7	5.6	10	-4.4	1.8	5	-3.2
	3Q	42.8	40	+ 2.8	18.8	20	- 1.2	29.5	25	+ 4.5	6.6	10	-3.4	2.3	5	-2.7
	4Q	44.6	40	+ 4.6	19.2	20	- 0.8	26.5	25	+ 1.5	7.2	10	-2.8	2.5	5	-2.5

*Includes cash held by external managers in the particular asset class.
**Includes cash uncommitted to long-term assets.

FIGURE 3

TAX-EXEMPT BALANCED PORTFOLIO UNIVERSE
HISTORICAL ASSET MIX



	1981	1982	1983	1984	1985
COMMON STOCKS	51%	48%	52%	48%	50%
BONDS	32	36	32	35	36
CASH EQUIVALENTS	12	12	10	11	9

PERCENT OF MARKET VALUE
END OF PERIOD ALLOCATIONS

Figure 3 and the accompanying table depict the median asset class weightings held in Wilshire Associate's TUCS universe of balanced portfolios during the last five calendar years. The figure and table are intended to give a perspective of the historical asset allocation of balanced tax-exempt corporate and public funds.

FIGURE 4

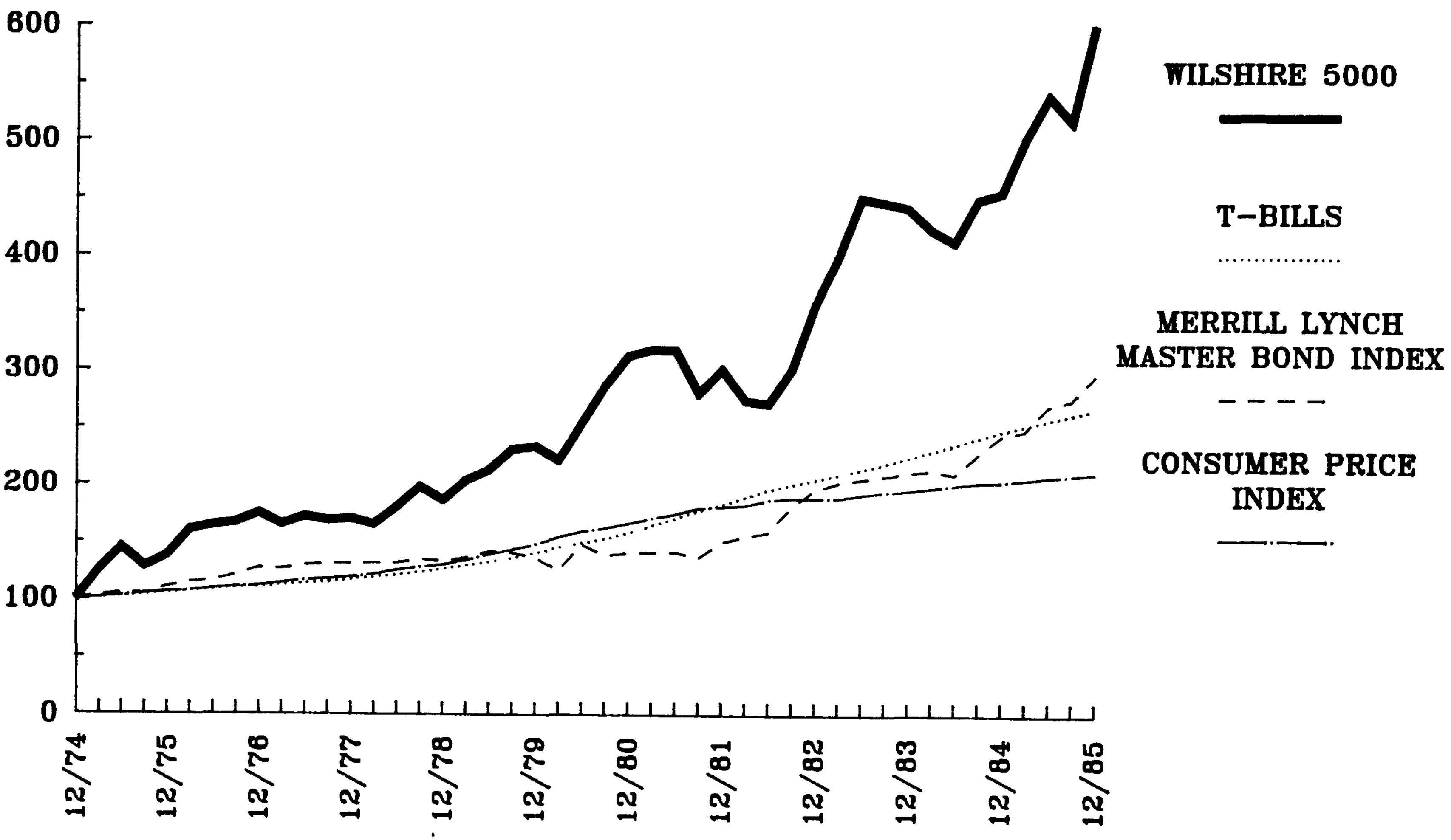


FIGURE 5

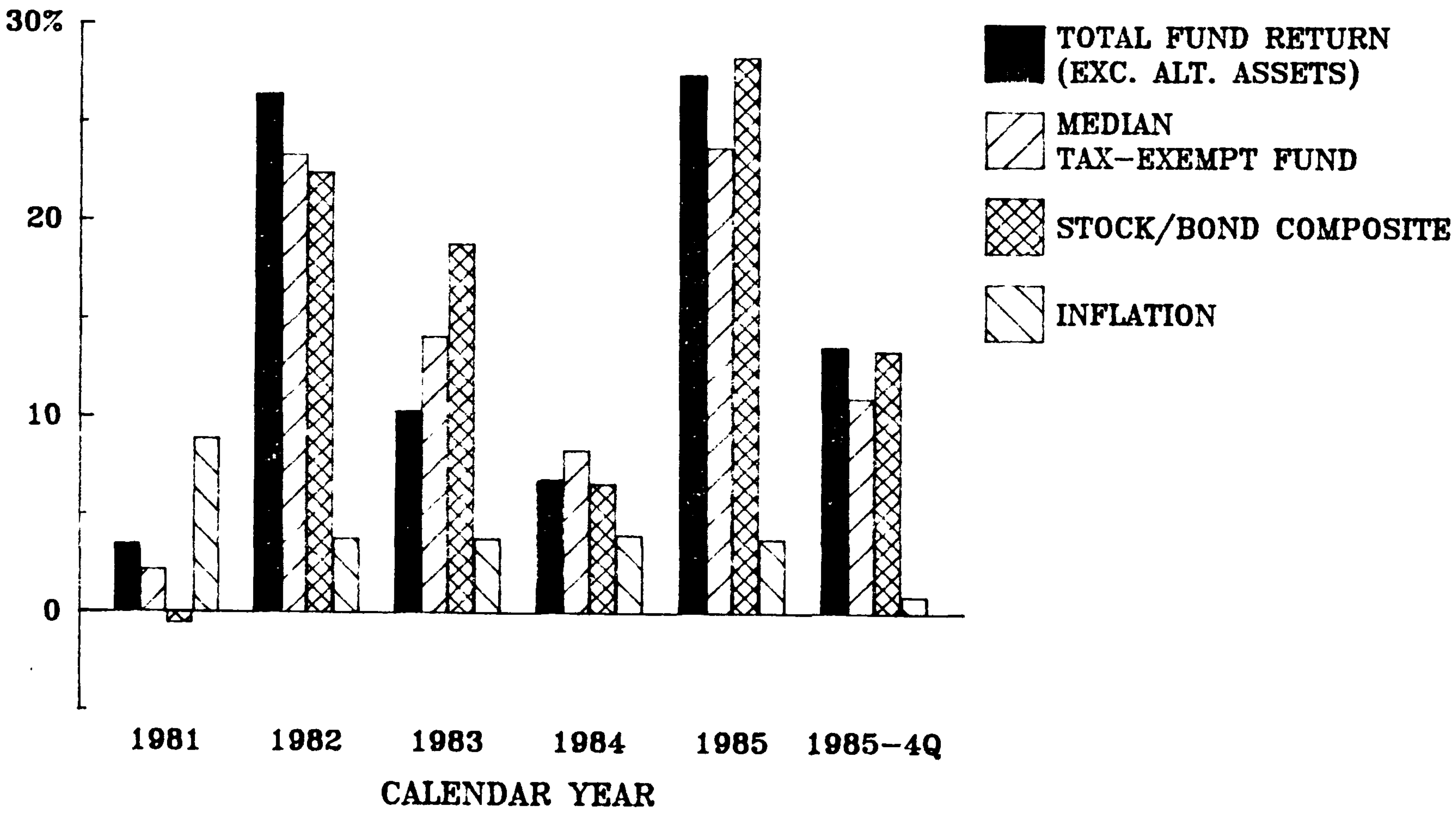


TABLE 3

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	91 Day T-Bills	Total Fund Return (inc. alt. assets)
1980		12.4%	18.6%	18.8%	12.5%	12.7%	12.4%
1981		3.5	2.2	2.0	8.9	15.6	3.5
1982		26.4	23.3	23.7	3.8	19.2	25.7
1983		10.3	14.1	17.9	3.8	9.3	10.1
1984		6.8	8.3	7.0	4.0	10.4	6.9
1985	1Q	6.9	5.7	7.4	1.0	2.1	6.5
	2Q	7.4	6.8	7.6	1.1	1.9	7.0
	3Q	- 2.3	- 1.0	- 2.1	0.7	1.9	- 2.0
	4Q	13.6	11.0	13.4	0.9	1.8	12.5
1 Year Through 12/31/85		27.4	23.7	28.3	3.8	7.9	25.6
3 Years Annualized Through 12/31/85		14.5	15.0	17.4	3.8	9.2	14.0
5 Years Annualized Through 12/31/85		14.4	14.3	15.3	4.8	11.0	14.0

*50/45/5 Wilshire 5000/Merrill Lynch Bond Index/T-Bill Composite Through 12-31-82;
65/30/5 Wilshire 5000/Merrill Lynch Bond Index/T-Bill Composite 1-01-83 through 12/31/85

TABLE 4

BASIC RETIREMENT FUNDS

INVESTMENT RETURNS - DETAIL

Calendar Year		Common Stocks		Bonds		Alternative Equity Assets
		Basics	Wilshire 5000	Basics	ML Bond Index	
1980		26.2%	33.7%	-0.1%	3.3%	-
1981		0.0	-3.6	2.0	7.0	-
1982		21.6	18.7	38.1	29.8	11.9
1983		12.7	23.5	9.3	7.8	7.4
1984		2.7	3.1	14.6	15.1	11.8
1985	1Q	9.5	10.3	2.1	2.0	1.6
	2Q	7.8	7.5	7.7	8.6	1.4
	3Q	- 4.5	- 4.3	2.7	1.9	0.8
	4Q	16.5	16.8	7.5	7.9	2.9
1 Year Through 12/31/85		31.4	32.6	21.4	21.8	6.8
3 Years Annualized Through 12/31/85		15.0	19.0	15.0	14.7	8.7
5 Years Annualized Through 12/31/85		13.1	14.0	16.5	16.0	N.A.

TABLE 5

BASIC RETIREMENT FUNDS

EQUITY MANAGER PERFORMANCE

TOTAL PORTFOLIO RETURNS

DECEMBER 31, 1985

Managers	Fourth Quarter 1985	Year Ending 12/31/85	Two Years Ending 12/31/85 (Annualized)	Since Inception 3/1/83 (Annualized)
Fred Alger	18.7%	32.4%	13.4%	13.5%
Alliance Capital	17.8	41.7	18.6	14.9
Beutel Goodman	12.0	21.8	16.1	16.6
BMI Capital	11.1	17.3	4.0	2.0
Forstmann Leff	16.3	33.6	15.5	14.8
Hellman Jordan	18.6	30.8	19.5	13.6
IDS	19.7	34.6	19.4	16.5
Investment Advisers	18.5	24.5	16.0	14.5
Lieber & Company	14.6	33.0	16.0	15.4
Peregrine Capital	12.8	30.1	9.8	11.2
Waddell & Reed	10.4	21.7	10.0	12.0
Internal Manager	12.2	N.A.	N.A.	N.A.
Total - External Active Managers	15.2	28.7	14.1	11.9
Wilshire Associates (Index Fund)	17.1	32.5	N.A.	N.A.
Performance Standards				
Wilshire 5000	16.8	32.6	18.0	14.0
TUCS Median Growth Mgr.	17.8	30.4	12.1	N.A.
TUCS Median Small Growth Mgr.	16.9	29.9	12.5	N.A.
TUCS Median Rotational Mgr.	16.0	28.4	14.1	N.A.
TUCS Median Value Mgr.	16.2	29.6	18.8	N.A.
Inflation	0.9	3.8	3.9	4.0

TABLE 6

BASIC RETIREMENT FUNDS
EXTERNAL EQUITY MANAGER RISK PROFILES

QUARTER-END PORTFOLIO STATISTICS

MANAGER	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	PORTFOLIO RISK ORIENTATION Earn. Var.	Earn. Success	Size	Growth	Fin. Lever.
Fred Alger	53	95	2.0%	15.9	1.25	0.90	++	--	0	+	++
Alliance	39	96	1.7	24.5	1.23	0.83	+	--	0	++	0
Mean SBI Growth Mgr.	46	96	1.9	20.2	1.24	0.87	++	--	0	++	+
Median TUCS Growth Mgr.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0	-	+	+	0
BMI Capital	36	95	2.1	19.5	1.27	0.85	++	+	++	++	0
Lieber & Company	104	97	2.1	14.3	1.30	0.85	+	--	++	+	--
Waddell & Reed	66	75	2.6	17.0	1.27	0.91	++	-	+	+	+
Mean SBI Sm. Growth Mgr.	69	89	2.3	16.9	1.28	0.87	++	-	++	+	0
Median TUCS Sm. Growth Mgr.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	+	--	++	++	--
Forstmann Leff	70	88	1.9	19.2	1.35	0.91	++	-	+	++	++
Hellman Jordan	42	95	2.6	24.2	1.14	0.93	+	+	--	+	++
IDS	48	93	2.6	18.9	1.18	0.88	++	--	0	+	+
Investment Advisers	36	83	2.5	16.3	1.14	0.93	+	+	0	+	0
Mean SBI Rotational Mgr.	49	90	2.4	19.6	1.20	0.91	++	0	0	+	+
Median TUCS Rotational Mgr.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	+	0	0	+	0
Beutel Goodman	22	89	3.9	19.5	1.22	0.83	++	++	+	0	++
Peregrine Capital	190	82	4.1	18.1	1.21	0.81	++	++	++	+	++
Internal Mgr.	64	95	3.3	13.5	1.16	0.90	+	++	+	+	++
Mean SBI Value Mgr.	92	89	3.8	17.0	1.20	0.85	++	++	+	+	++
Median TUCS Value Mgr.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	-	+	-	--	0
Composite External Manager	582	90	2.8	18.2	1.20	0.93	++	+	+	+	++
Index Fund Manager	1230	100	3.6	N.A.	1.06	0.96	0	0	0	0	0
Composite All Basic Managers	1406	96	3.3	N.A.	1.11	0.95	0	0	+	0	0

TABLE 7

BASIC RETIREMENT FUNDS
EXTERNAL EQUITY MANAGER SECTOR WEIGHTINGS

MANAGER	SECTOR WEIGHTINGS CAPITAL GOODS	CONSUMER DURABLES	CONSUMER NONDURABLES	ENERGY	FINANCIAL	MAT. & SERVICES	TECHNOLOGY	TRANS-PORTATION	UTILITIES
Fred Alger	1.7%	11.7%	38.7%	---%	18.2%	3.1%	17.0%	6.6%	2.9%
Alliance	---	4.6	45.6	---	29.2	---	14.3	6.3	---
Mean SBI Growth Mgr.	0.9	8.2	42.2	0.0	23.7	1.6	15.7	6.5	1.5
Median TUCS Growth Mgr.	3.7	3.5	32.2	0.9	15.3	11.4	18.6	5.4	0.8
BMI Capital	9.9	4.0	32.2	14.6	19.3	4.3	12.3	3.4	---
Lieber & Company	1.8	8.7	20.1	3.5	34.3	11.9	12.2	5.4	2.0
Waddell & Reed	4.6	7.7	17.0	5.4	15.2	25.9	15.0	9.1	---
Mean SBI Sm. Growth Mgr.	5.4	6.8	23.1	7.8	22.9	14.0	13.2	6.0	0.7
Median TUCS Sm. Growth Mgr.	2.3	4.3	39.5	0.4	11.2	12.0	13.5	3.5	---
Forstmann Leff	1.4	7.9	25.7	2.1	25.2	22.1	8.9	6.7	---
Hellman Jordan	---	8.8	20.1	9.4	23.5	18.7	15.2	2.9	1.4
IDS	---	1.9	31.7	2.6	14.9	10.4	13.9	13.2	11.4
Investment Advisers	4.0	6.6	15.7	3.0	12.6	18.5	24.4	12.2	2.9
Mean SBI Rotational Mgr.	1.4	6.3	23.3	4.3	19.1	17.4	15.6	8.8	3.9
Median TUCS Rotational Mgr.	3.3	3.7	25.4	4.3	13.2	11.8	16.7	3.9	4.1
Beutel Goodman	3.9	3.8	9.0	2.8	28.2	22.1	18.2	12.0	---
Peregrine Capital	9.1	6.3	15.1	17.8	5.3	19.1	11.2	3.3	12.7
Internal Mgr.	1.6	3.2	10.1	27.9	8.6	5.4	10.8	6.9	25.4
Mean SBI Value Mgr.	4.9	4.4	11.4	16.2	14.0	15.5	13.4	7.4	12.7
Median TUCS Value Mgr.	5.2	4.3	23.6	9.6	12.4	10.8	14.0	2.3	12.5
Composite External Managers	3.0	6.2	24.1	7.4	19.1	13.0	14.5	7.4	5.3
Index Fund Manager	5.1	4.2	25.9	9.5	12.3	11.5	14.9	3.1	13.6
Composite All Basic Managers	4.5	4.9	24.7	9.3	14.3	11.8	15.4	4.4	10.8
Wilshire 5000	4.8	4.2	25.7	10.5	12.9	11.4	14.2	3.3	13.0

TABLE 8

BASIC RETIREMENT FUNDS

BOND MANAGER PERFORMANCE

TOTAL PORTFOLIO RETURNS

Managers	Fourth Quarter 1985	Year Ending 12/31/85	Since Inception 6/30/84 (Annualized)
Investment Advisers	6.3%	20.9%	29.4%
Lehman Management	6.5	19.4	24.3
Miller Anderson	8.7	22.9	24.8
Morgan Stanley	7.7	22.2	24.7
Peregrine Capital	5.2	18.6	21.6
Western Asset	9.3	24.3	29.4
Total - External Bond Managers	7.7	21.8	25.5
Performance Standards			
Merrill Lynch Master Bond Index	7.9	21.8	26.2
TUCS Median Bond Manager	6.9	20.5	N.A.

TABLE 9

BASIC RETIREMENT FUNDS

EXTERNAL BOND MANAGERS

QUARTER-END PORTFOLIO STATISTICS

PORTFOLIO STATISTICS SUMMARY

MANAGER	QUARTER PORTFOLIO T/O	# OF BONDS	BOND ALLOCATION	COUPON	CURRENT YIELD	YIELD TO MAT.	AVERAGE QUALITY	DURATION	TERM TO MAT.
Investment Advisers	10	16	95	9.4	8.8	8.7	AAA	3.4	4.3
Lehman Management	40	32	89	11.1	10.2	9.2	AAA	3.7	6.5
Miller Anderson	71	42	99	10.4	9.9	9.6	AA	5.3	9.6
Morgan Stanley	58	17	100	10.4	10.1	9.9	AAA	5.0	10.6
Peregrine Capital	18	51	98	11.5	10.8	10.4	AA	3.7	9.3
Western Asset	47	40	87	10.3	10.1	10.0	AA	5.2	11.9

SECTOR WEIGHTING PROFILE

MANAGER	QUALITY WEIGHTINGS					SECTOR WEIGHTINGS									
	AAA	AA	A	BAA	OTHER	GOVT	AGCY	ZERO	IND	UTIL	FIN	TRAN	MTGS	MISC	CASH
Investment Advisers	96	4	0	0	0	68	0	12	8	0	7	0	0	0	5
Lehman Managment	89	5	6	0	0	51	10	0	7	2	7	0	12	0	11
Miller Anderson	71	0	6	4	19	45	0	0	2	0	8	0	44	0	1
Morgan Stanley	100	0	0	0	0	42	0	0	0	0	0	0	58	0	0
Peregrine Capital	55	13	29	0	3	0	0	0	5	0	29	0	48	16	2
Western Asset	73	5	8	7	7	5	8	1	15	9	2	1	48	0	13

MINNESOTA STATE BOARD OF INVESTMENT

POST RETIREMENT INVESTMENT FUND

QUARTERLY INVESTMENT REVIEW

DECEMBER 31, 1985

MINNESOTA STATE BOARD OF INVESTMENT

POST RETIREMENT INVESTMENT FUND

FOURTH QUARTER 1985

Summary

ASSETS

The assets of the Post Retirement Investment Fund increased by 11.8% in market value during the fourth quarter, bringing asset growth for the full calendar year 1985 to 38.3%. This increase was due to both the strong performance of the capital markets as well as a continued high level of positive net contributions to the Fund. End-of-period market values of the Post Retirement Investment Fund's assets for the last four quarters and five calendar years are shown below.

Calendar Year		Market Value (millions)	Percent Change from Previous Period
1980		$1,161	+20.2
1981		1,101	- 5.2
1982		1,523	+38.3
1983		1,803	+18.4
1984		2,246	+24.6
1985	1Q	2,352	+ 4.7
	2Q	2,709	+15.2
	3Q	2,779	+ 2.6
	4Q	3,107	+11.8

ASSET MIX

The cash component of the Post Retirement Fund increased slightly, while the common stock segment declined slightly during the fourth quarter. This change was due primarily to the gradual, but persistent reduction in the common stock segment necessary to fund the dedicated bond portfolio in a declining interest rate environment. The percentage of the Fund (at market value) invested in common stocks, bonds, and cash equivalents over the last two quarters and previous year is presented below.

ASSET MIX

	12/31/84	9/30/85	12/31/85
Common Stocks	30.0%	23.4%	20.5%
Bonds	62.9	70.9	70.2
Cash Equivalents	7.1	5.7	9.3
	100.0%	100.0%	100.0%

EQUITY PERFORMANCE

The Post Retirement Investment Fund's equity portfolio produced a 17.0% total rate of return during the fourth quarter. This return exceeded both that of the Wilshire 5000 and the SBI external active equity manager pool. For the calendar year 1985 the equity portfolio's return was 28.4%, underperforming the Wilshire 5000, but roughly matching the manager pool's return.

Several significant shifts took place in the equity portfolio's sector weightings during the fourth quarter. Positions in Capital Goods, Consumer Nondurables, Financial, and Technology were cut back sharply. Positions in Energy, Transportation, and Utilities were increased.

The equity portfolio's returns over the most recent quarter and most recent year are displayed below.

	Fourth Quarter 1985	Year Ending 12/31/85
Equity Portfolio	17.0%	28.4%
Wilshire 5000	16.8	32.6

BOND PORTFOLIO

No significant changes took place in the dedicated bond portfolio during the fourth quarter. The portfolio remained invested in high quality issues. Treasury and Agency issues composed the vast majority of the portfolio. Relevant quarter-end portfolio statistics are shown on the following page.

TABLE 10

POST RETIREMENT INVESTMENT FUND

DEDICATED BOND PORTFOLIO STATISTICS

December 31, 1985

Value at Market	$1,636,291,270
Value at Par	$1,643,752,448
Average Coupon	10.44%
Current Yield	9.87%
Yield to Maturity	9.63%
Time to Maturity	13.98 Years
Average Duration	6.95 Years
Average Quality Rating	AAA
Number of Issues	206

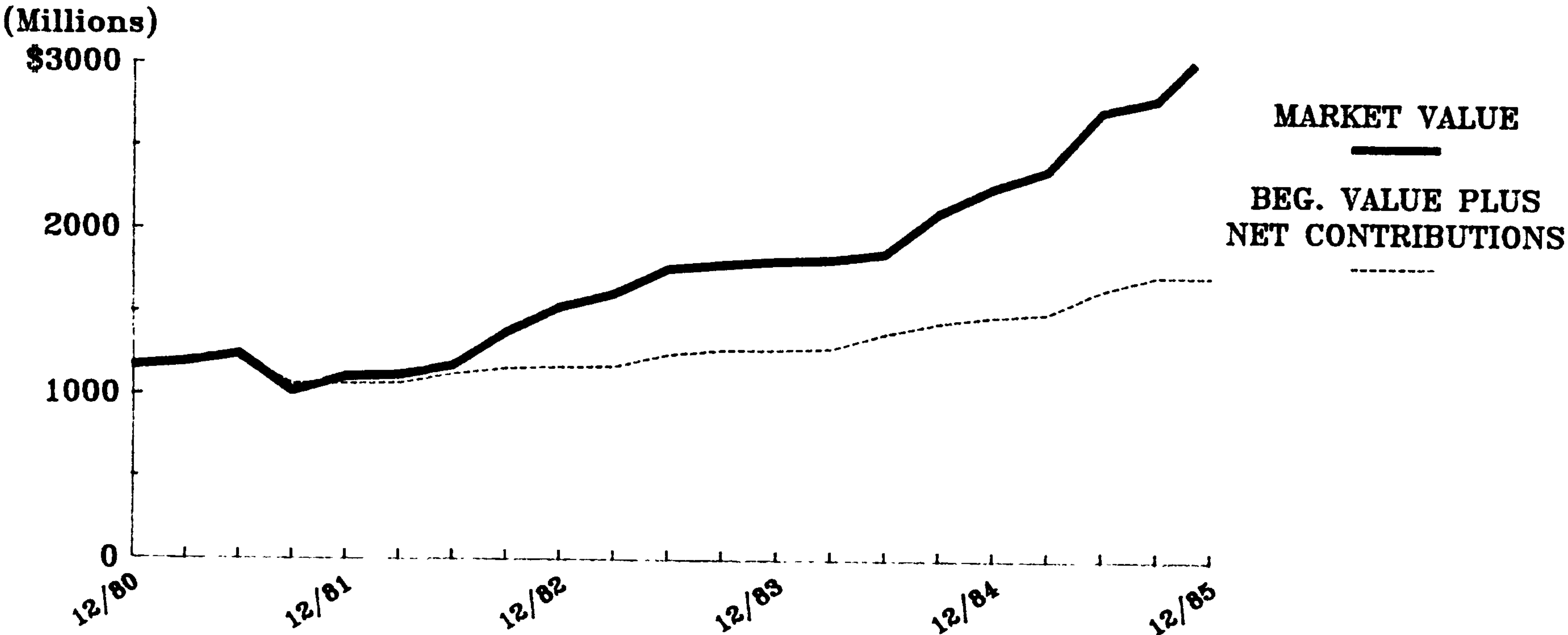
SECTOR WEIGHTINGS

Treasury	58.7%
Federal Agency	9.3
Industrial	10.9
Utilities	8.3
Finance	6.8
Transportation	1.6
Mortgages	0.0
Miscellaneous	4.4
	100.0%

FIGURE 6

POST RETIREMENT INVESTMENT FUND

ASSET GROWTH



PERIOD ENDING

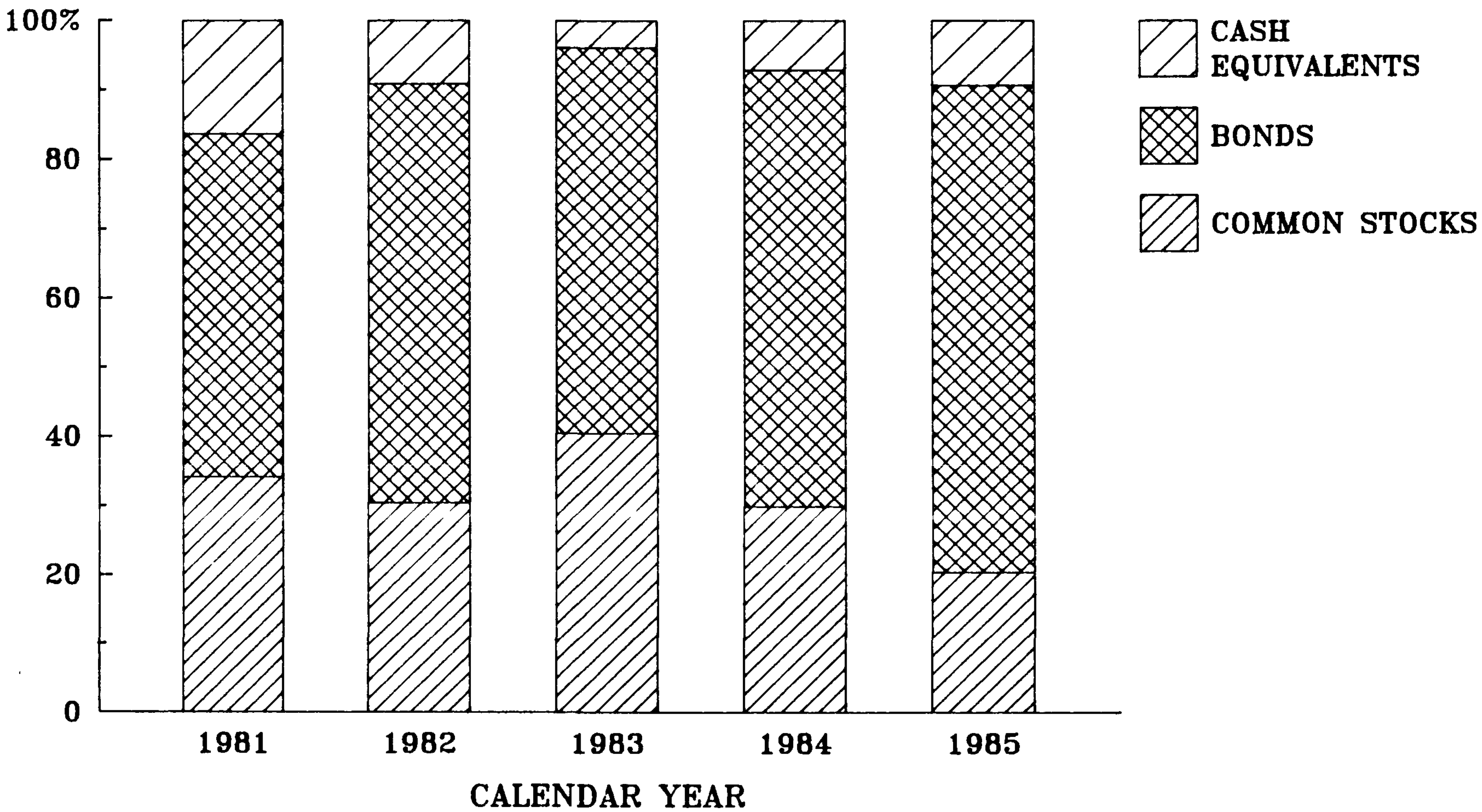
	12/80	12/81	12/82	12/83	12/84	12/85
BEGINNING VALUE	956.6	1,161.6	1,100.9	1,522.9	1,802.9	2,245.7
NET CONTRIBUTIONS	70.1	-97.8	102.6	109.1	201.0	238.9
INVESTMENT RETURN	125.9	37.1	319.4	170.8	241.8	622.7
ENDING VALUE	1,161.6	1,100.9	1,522.9	1,802.9	2,245.7	3,107.3

(MILLIONS OF DOLLARS)

FIGURE 7

POST RETIREMENT INVESTMENT FUND

HISTORICAL ASSET MIX



PERCENT OF MARKET VALUE
END OF PERIOD ALLOCATIONS

TABLE 11

POST RETIREMENT INVESTMENT FUND

ASSET MIX

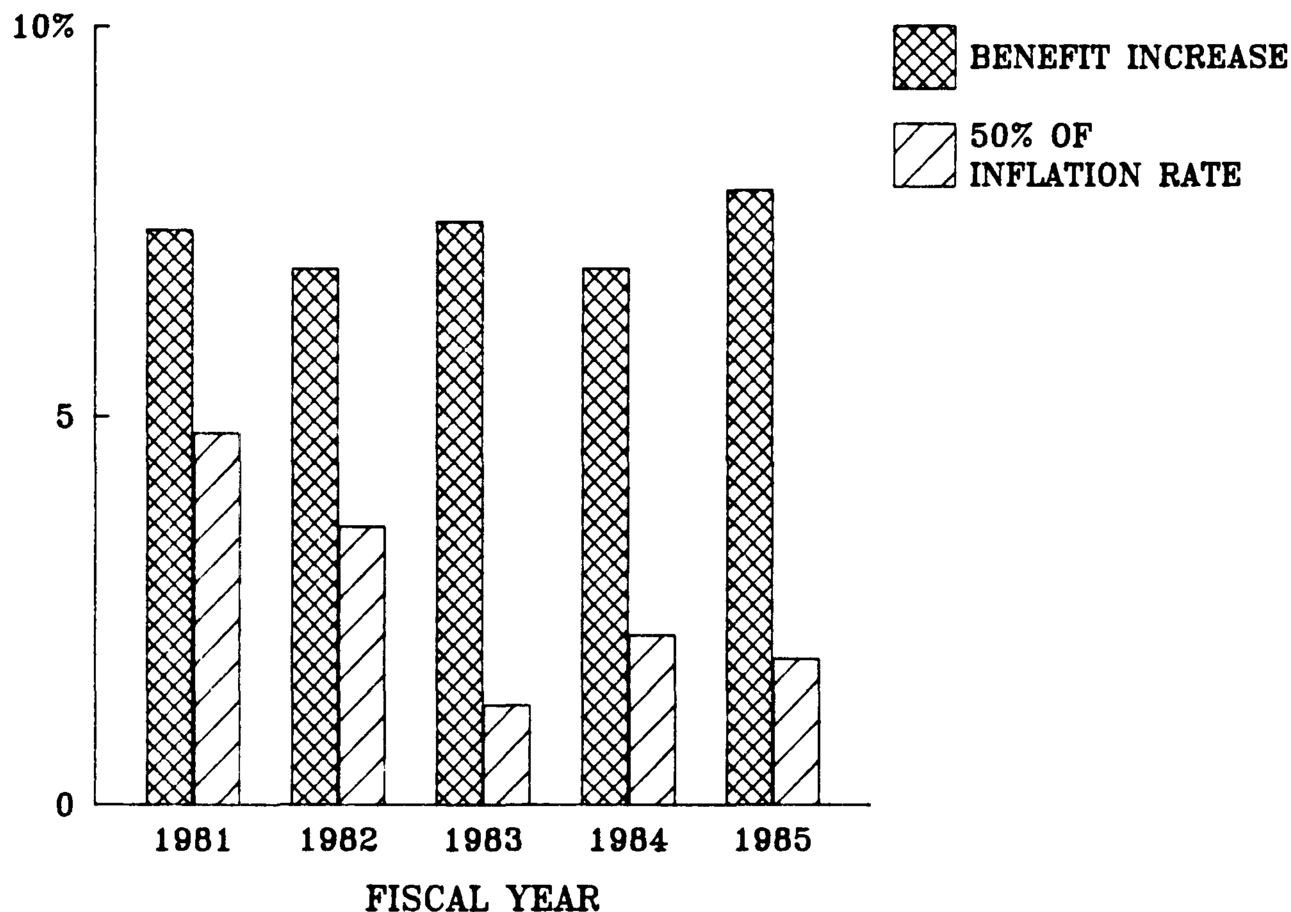
PERCENT OF MARKET VALUE
(End Of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash $Million	Cash Percent
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		674.8	30.0	1,411.4	62.9	159.5	7.1
1985	1Q	715.5	30.4	1,551.8	66.0	85.1	3.6
	2Q	732.6	27.1	1,780.1	65.7	195.9	7.2
	3Q	649.7	23.4	1,970.1	70.9	159.6	5.7
	4Q	636.5	20.5	2,182.5	70.2	288.3	9.3

FIGURE 8

POST RETIREMENT INVESTMENT FUND

BENEFIT INCREASES VERSUS INFLATION



FISCAL YEAR

	1981	1982	1983	1984	1985	3 YR.*	5 YR.*
BENEFIT INCREASE	7.4%	6.9%	7.5%	6.9%	7.9%	7.1%	6.4%
50% OF INFLATION RATE	4.8	3.6	1.3	2.2	1.9	2.3	3.7

* ANNUALIZED

FIGURE 9

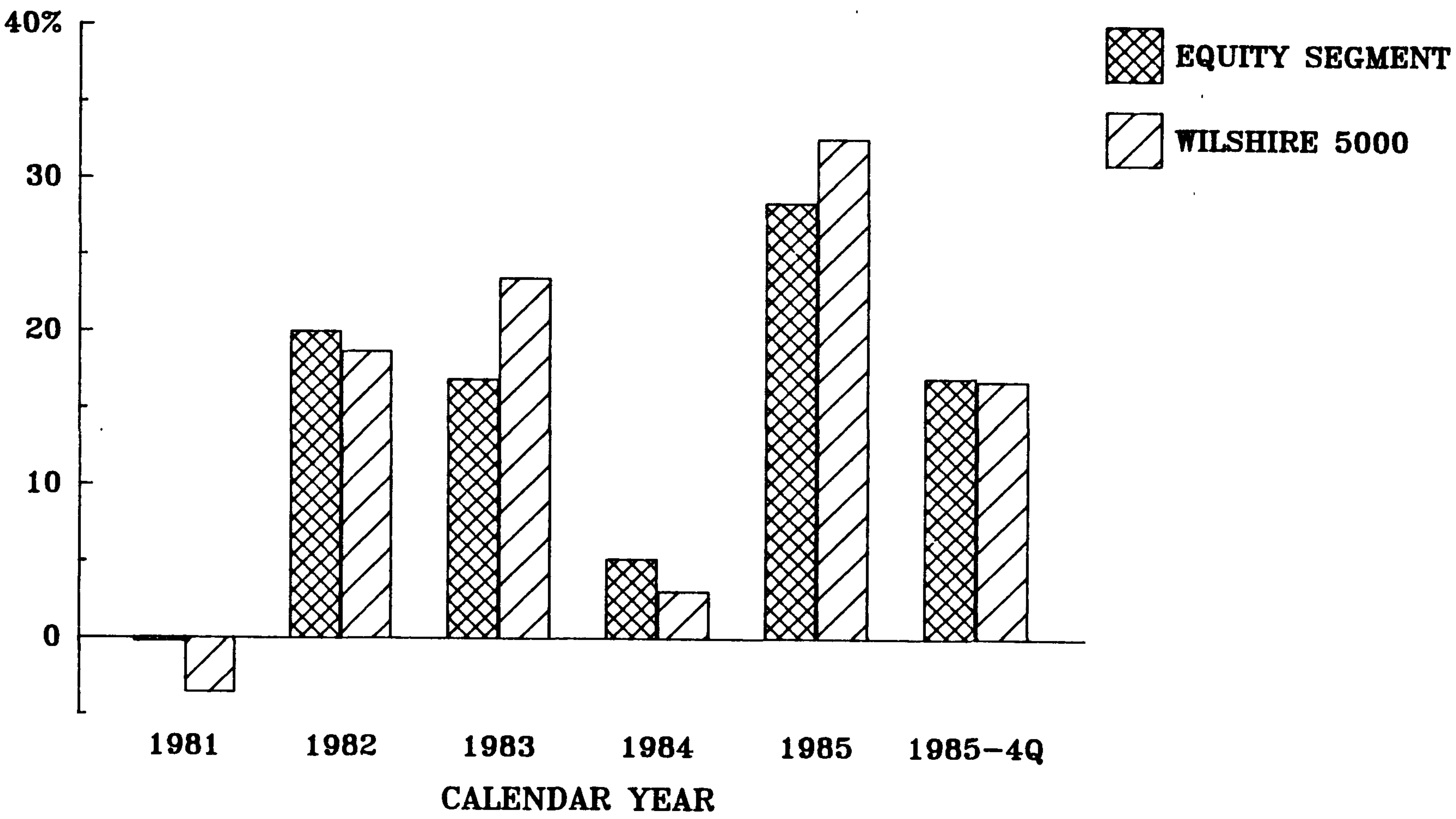


TABLE 12

POST RETIREMENT INVESTMENT FUND

EQUITY SEGMENT RETURNS

INVESTMENT RETURNS RELATIVE TO PERFORMANCE STANDARDS

		Total Returns	
		Post Retirement Fund	Wilshire 5000
1980		25.9%	33.7%
1981		-0.3	-3.6
1982		20.0	18.7
1983		16.9	23.5
1984		5.2	3.1
1985	1Q	9.7	10.3
	2Q	6.9	7.5
	3Q	-6.5	- 4.3
	4Q	17.0	16.8
1 Year Through 12/31/85		28.4	32.6
3 Years Annualized Through 12/31/85		16.4	19.0
5 Years Annualized Through 12/31/85		13.6	14.0

TABLE 13

POST RETIREMENT INVESTMENT FUND
EQUITY MANAGER DATA

DECEMBER 31, 1985

SECTOR WEIGHTINGS

SECTORS	WEIGHTING INTERNAL MANAGER	WEIGHTING WILSHIRE 5000
Capital Goods	1.6%	4.8%
Consumer Durables	3.2	4.2
Consumer Nondurables	10.1	25.7
Energy	27.9	10.5
Financial	8.6	12.9
Materials & Services	5.4	11.4
Technology	10.8	14.2
Transportation	6.9	3.7
Utilities	25.5	13.0
	100.0%	100.0%

QUARTER-END PORTFOLIO STATISTICS

	# OF STOCKS	EQUITY ALLOC.	YIELD	P/E	MKT VOLTY	DIVERSFN	Earn. Var.	PORTFOLIO RISK ORIENTATION Earn. Success	Size	Growth	Fin. Lever.
Internal Manager	113	100%	3.6%	14.5	1.09	0.93	0	++	+	+	++

MINNESOTA STATE BOARD OF INVESTMENT

SUPPLEMENTAL INVESTMENT FUND
(Income Share Account)

SUPPLEMENTAL INVESTMENT FUND
(Growth Share Account)

MINNESOTA VARIABLE ANNUITY FUND

QUARTERLY INVESTMENT REVIEW

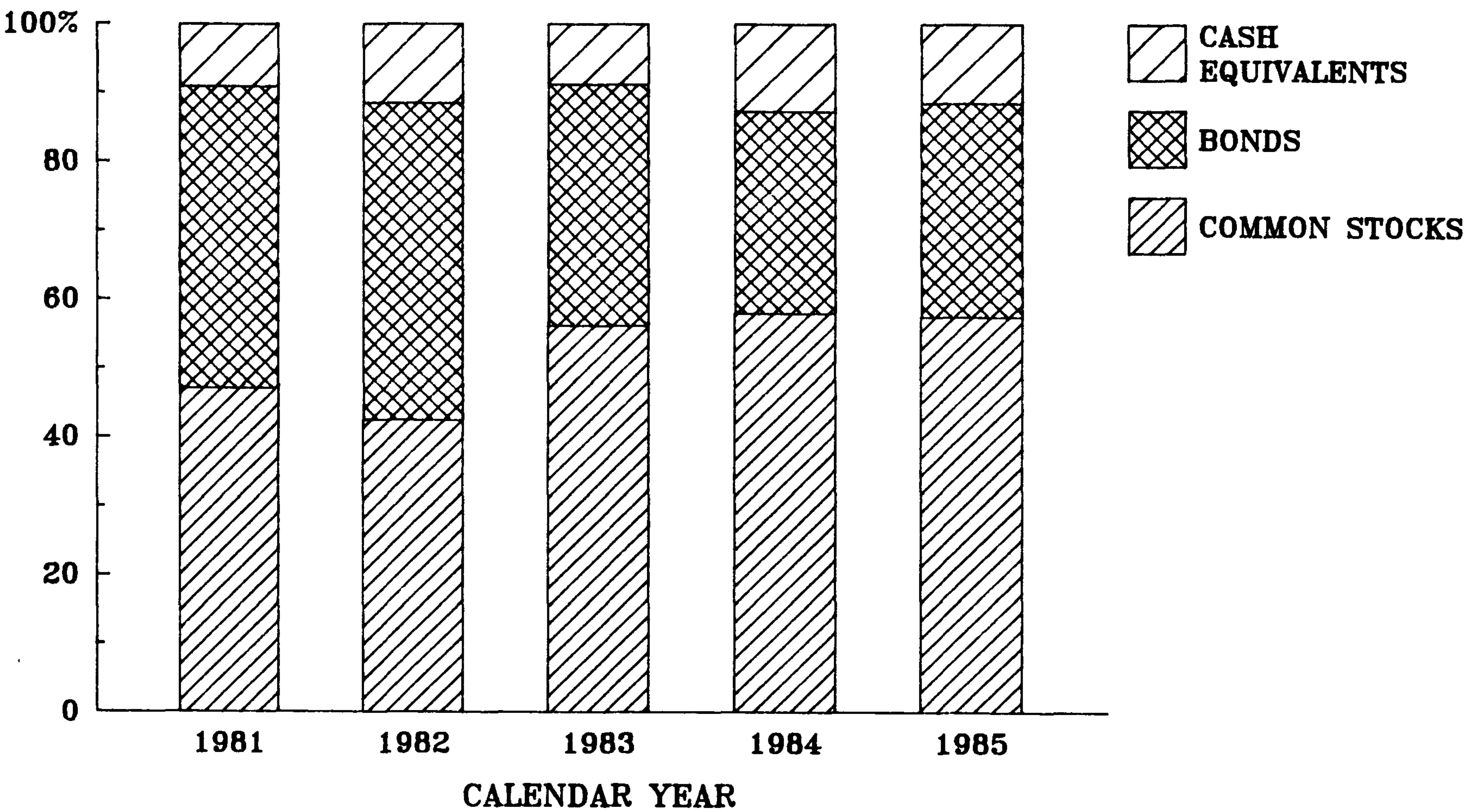
DECEMBER 31, 1985

FIGURE 10

SUPPLEMENTAL INVESTMENT FUND

(INCOME SHARE ACCOUNT)

HISTORICAL ASSET MIX



PERCENT OF MARKET VALUE
END OF PERIOD ALLOCATIONS

TABLE 14

SUPPLEMENTAL INVESTMENT FUND
(Income Share Account)
ASSET MIX

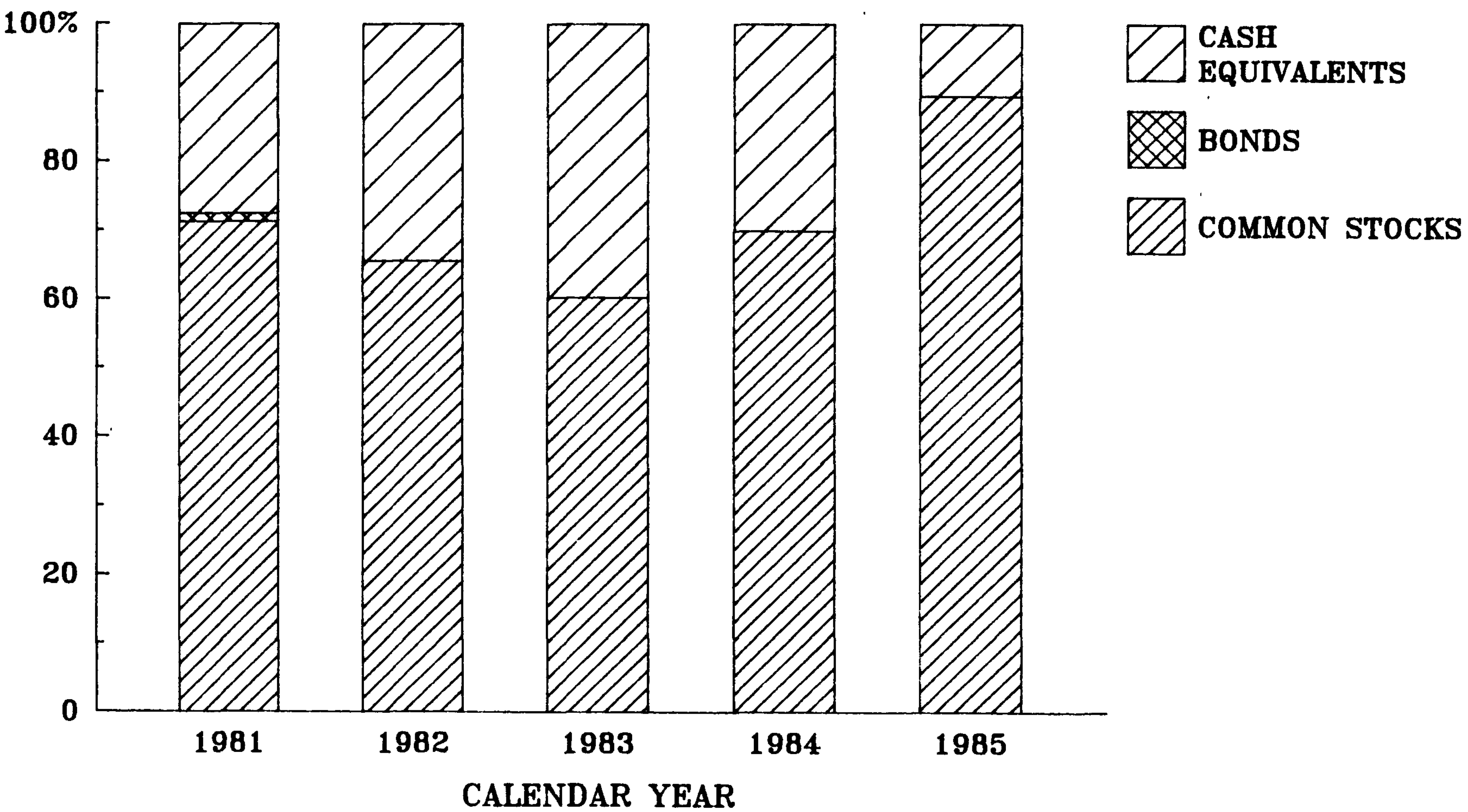
PERCENT OF MARKET VALUE
(End Of Period Allocations)

Calendar Year		Common Stocks		Bonds		Cash*	
		$Million	Percent	$Million	Percent	$Million	Percent
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		74.4	58.0	37.6	29.3	16.4	12.7
1985	1Q	81.9	60.0	44.1	32.3	10.5	7.7
	2Q	87.6	60.7	44.2	30.6	12.6	8.7
	3Q	83.2	59.0	44.2	31.4	13.5	9.6
	4Q	92.8	57.5	50.0	31.0	18.5	11.5

*Includes cash held by the external managers

FIGURE 11

SUPPLEMENTAL INVESTMENT FUND
(GROWTH SHARE ACCOUNT)
HISTORICAL ASSET MIX



PERCENT OF MARKET VALUE
END OF PERIOD ALLOCATIONS

TABLE 15

SUPPLEMENTAL INVESTMENT FUND

(Growth Share Account)

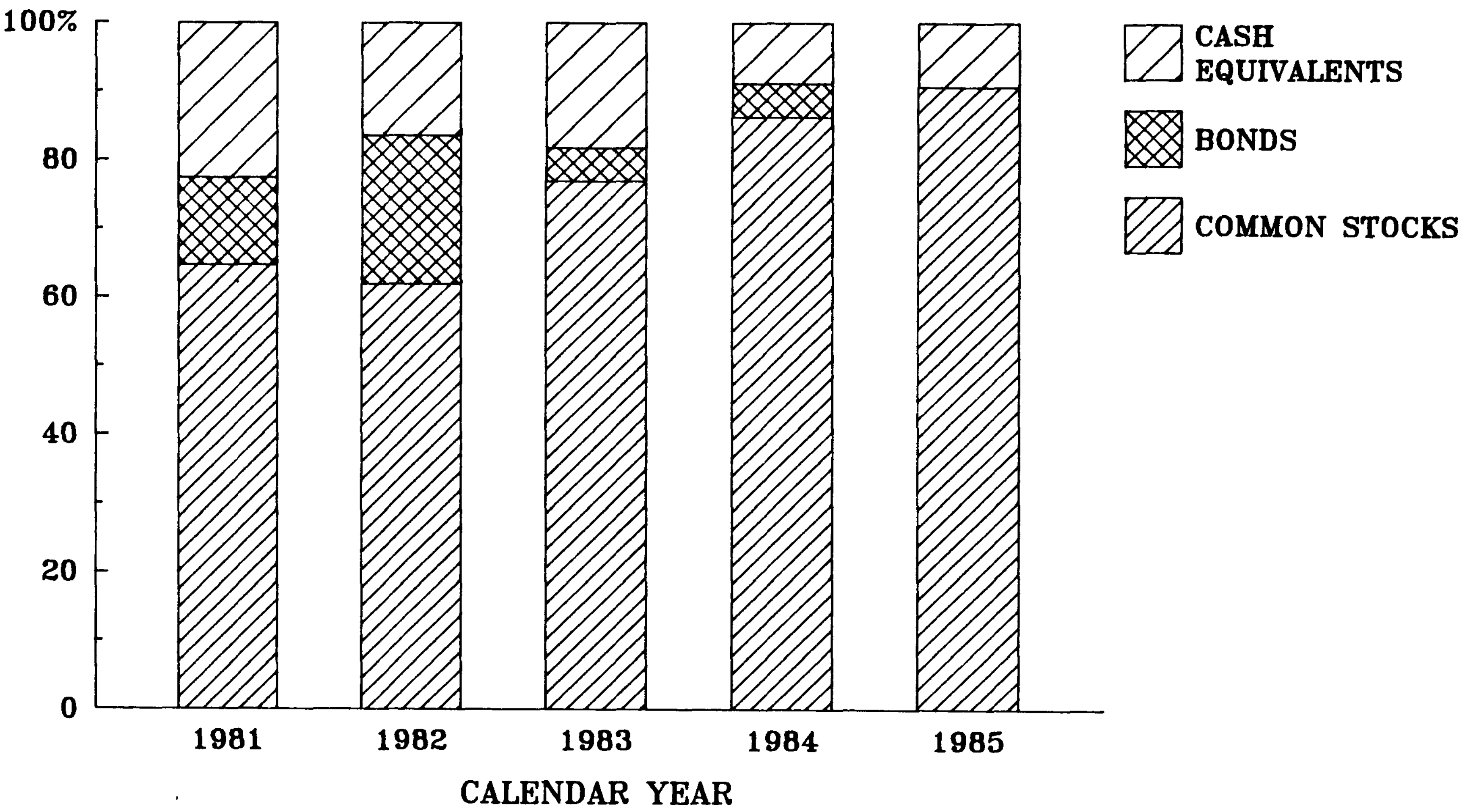
ASSET MIX

PERCENT OF MARKET VALUE
(End Of Period Allocations)

Calendar Year		Common Stocks		Bonds		Cash*	
		$Million	Percent	$Million	Percent	$Million	Percent
1980		29.8	83.0	----	----	6.1	17.0
1981		28.8	71.3	0.5	1.2	11.1	27.5
1982		32.5	65.6	----	----	17.0	34.4
1983		33.7	60.3	----	----	22.2	39.7
1984		41.8	70.0	----	----	17.9	30.0
1985	1Q	52.2	82.0	----	----	11.5	18.0
	2Q	56.3	83.8	0.2	0.3	10.6	15.9
	3Q	56.6	90.3	----	----	6.1	9.7
	4Q	65.8	89.5	----	----	7.7	10.5

*Includes cash held by the external managers

FIGURE 12



PERCENT OF MARKET VALUE
END OF PERIOD ALLOCATIONS

TABLE 16

MINNESOTA VARIABLE ANNUITY FUND

ASSET MIX

PERCENT OF MARKET VALUE
(End Of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash* $Million	Cash* Percent
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		89.4	86.3	5.1	4.9	9.1	8.8
1985	1Q	102.1	90.6	5.2	4.6	5.5	4.8
	2Q	106.5	88.9	---	---	13.3	11.1
	3Q	99.6	89.1	---	---	12.2	10.9
	4Q	116.8	90.7	---	---	12.0	9.3

*Includes cash held by external managers

TABLE 17

MINNESOTA STATE BOARD OF INVESTMENT
RETIREMENT FUNDS

INVESTMENT RETURNS RELATIVE TO PERFORMANCE STANDARDS

YEAR ENDING DECEMBER 31, 1985

	Total Fund Return	Stock/Bond Composite**	Common Stocks	Wilshire 5000	Bonds	ML Bond Index
SUPPLEMENTAL INVESTMENT FUND						
Income Share Account*	21.5%	28.3%	24.6%	32.6%	19.6%	21.8%
Growth Share Account*	22.9	31.3	26.1	32.6	---	21.8
VARIABLE ANNUITY FUND*	26.1	31.3	28.0	32.6	---	21.8

* Includes performance of both internal and external managers.

** Wilshire 5000/Merrill Lynch Master Bond/91 day T-bill indices:

Income Account - 65% stock/30% bond/5% cash
Growth Account - 95% stock/ 5% cash
Variable Fund - 95% stock/ 5% cash

MINNESOTA STATE BOARD OF INVESTMENT

PERMANENT SCHOOL FUND

QUARTERLY INVESTMENT REVIEW

DECEMBER 31, 1985

MINNESOTA STATE BOARD OF INVESTMENT

PERMANENT SCHOOL FUND

FOURTH QUARTER 1985

Summary

ASSETS

The Permanent School Funds' assets rose 1.4% in market value in the fourth quarter. The asset growth was due entirely to market value appreciation, as net withdrawals of income from the Fund totalled $-17 million for the fourth quarter. End-of-period market values for the last four quarters and five calendar years are presented below.

Calendar Year		Market Value (Millions)	Percent Change From Previous Period
1980		245	+ 1.7
1981		236	- 3.7
1982		286	+ 21.2
1983		290	+ 1.4
1984		308	+ 6.2
1985	1Q	311	+ 1.0
	2Q	337	+ 8.4
	3Q	345	+ 2.4
	4Q	350	+ 1.4

ASSET MIX

The shift in the asset mix of the Permanent School Fund to an all-fixed income portfolio was completed in the fourth quarter. As discussed in the last Quarterly Investment Review, the accounting restrictions under which the Fund must operate necessitate that current income maximization be its primary investment goal. Common stocks are not a viable component of the Fund's long-run asset mix.

Over the last two quarters, the proceeds from the liquidation of the common stock portfolio have been held in cash equivalents. The allocation of these funds to long-term assets awaits a legal opinion regarding the Board's proposed legislative changes.

ASSET MIX

	12/31/84	9/30/85	12/31/85
Common Stocks	17.8%	2.1%	0.0%
Bonds	71.2	66.8	68.2
Cash Equivalents	11.0	31.1	31.8
	100.0%	100.0%	100.0%

BOND PORTFOLIO

The Permanent School Fund's bond portfolio, at the end of the fourth quarter, remained invested in high quality, intermediate-to-long maturity issues, selling at a slight discount to par value. mortgages, both federal and privately insured, made up the largest segment of the portfolio. Relevant quarter-end portfolio statistics are shown on the following page.

TABLE 18

PERMANENT SCHOOL FUND

BOND PORTFOLIO STATISTICS

DECEMBER 31, 1985

Value at Market	$234,065,167
Value at Par	$234,493,056
Average Coupon	10.23%
Current Yield	10.03%
Yield to Maturity	9.74%
Time to Maturity	12.14 Years
Average Duration	5.81 Years
Average Quality Rating	AAA
Number of Issues	115

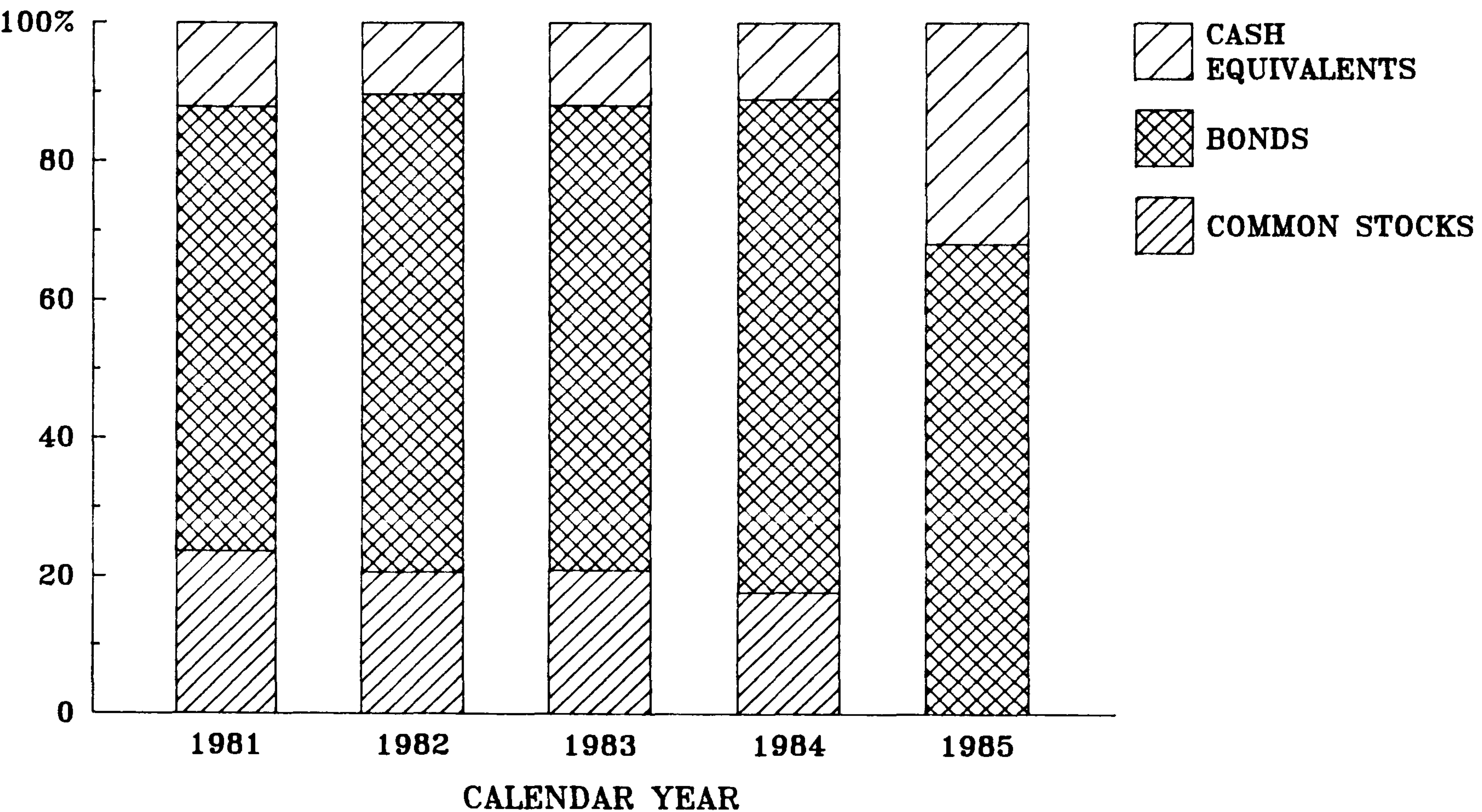
SECTOR WEIGHTINGS

Treasury	13.9%
Federal Agency	23.5
Industrial	5.4
Utilities	8.2
Finance	4.3
Transportation	5.6
Mortgages	37.5
Miscellaneous	1.6
	100.0%

FIGURE 13

PERMANENT SCHOOL FUND

HISTORICAL ASSET MIX



PERCENT OF MARKET VALUE
END OF PERIOD ALLOCATIONS

TABLE 19

PERMANENT SCHOOL FUND

ASSET MIX

PERCENT OF MARKET VALUE
(End Of Period Allocations)

Calendar Year		Common Stocks $Million	Common Stocks Percent	Bonds $Million	Bonds Percent	Cash $Million	Cash Percent
1980		63.9	26.1	169.3	69.2	11.6	4.7
1981		56.0	23.7	151.9	64.2	28.5	12.1
1982		59.1	20.7	197.6	69.0	29.5	10.3
1983		60.8	21.0	195.0	67.1	34.4	11.9
1984		54.9	17.8	219.4	71.2	33.8	11.0
1985	1Q	57.6	18.5	235.6	75.9	17.5	5.6
	2Q	58.4	17.3	241.0	71.4	37.9	11.3
	3Q	7.1	2.1	230.4	66.8	107.4	31.1
	4Q	0.0	0.0	238.7	68.2	111.5	31.8

Tab B

PORTFOLIO STATISTICS

		PAGE
I.	Composition of State Investment Portfolios 12/31/85	1
II.	Cash Flow Available for Investment 10/1/85-12/31/85	2
III.	Monthly Transactions and Asset Summary - Retirement Funds	3

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
COMPOSITION OF STATE INVESTMENT PORTFOLIOS BY TYPE OF INVESTMENT
MARKET VALUE DECEMBER 31, 1985

	CASH AND SHORT TERM SECURITIES	BONDS		STOCKS		ALTERNATIVE ASSETS	TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL		
BASIC RETIREMENT FUNDS:							
TEACHERS RETIREMENT FUND	$ 17,682 1.07%	$ -0-	$ 419,708 25.26%	$ -0-	$ 1,060,915 63.85%	$163,169 9.82%	$1,661,474 100%
PUBLIC EMPLOYEES RETIRE. FUND	5,983 0.52%	-0-	290,860 25.44%	-0-	735,231 64.30%	111,324 9.74%	1,143,398 100%
STATE EMPLOYEES RETIRE. FUND	8,994 1.07%	-0-	211,769 25.26%	-0-	535,295 63.86%	82,256 9.81%	838,314 100%
PUBLIC EMP. POLICE & FIRE FUND	7,428 2.33%	-0-	82,753 25.94%	-0-	198,435 62.21%	30,357 9.52%	318,973 100%
HIGHWAY PATROL RETIRE. FUND	4,711 7.46%	-0-	14,941 23.64%	-0-	37,745 59.73%	5,796 9.17%	63,193 100%
JUDGES RETIREMENT FUND	44 1.07%	-0-	1,044 25.27%	-0-	2,638 63.86%	405 9.80%	4,131 100%
POST RETIREMENT FUND	298,639 9.79%	2,118,221 69.43%	-0-	634,161 20.78%	-0-	-0-	3,051,021 100%
MINNESOTA SUPPLEMENTAL FUNDS:							
INCOME SHARE ACCOUNT	12,627 7.88%	48,985 30.56%	-0-	88,092 54.96%	10,584 6.60%	-0-	160,288 100%
GROWTH SHARE ACCOUNT	2,517 3.42%	-0-	-0-	38,964 53.01%	32,026 43.57%	-0-	73,507 100%
FIXED RETURN ACCOUNT	63,548 86.11%	10,251 13.89%	-0-	-0-	-0-	-0-	73,799 100%
BOND ACCOUNT	1,217 15.08%	6,851 84.92%	-0-	-0-	-0-	-0-	8,068 100%
MINNESOTA VARIABLE ANNUITY	2,385 1.85%	-0-	-0-	60,355 46.86%	66,068 51.29%	-0-	128,808 100%
TOTAL RETIREMENT FUNDS	$ 425,775 5.66%	$2,184,308 29.03%	$1,021,075 13.57%	$821,572 10.92%	$2,678,937 35.60%	$393,307 5.22%	$7,524,974 100%

PERMANENT SCHOOL FUND	111,513 32.24%	234,403 67.76%	-0-	-0-	-0-	-0-	345,916 100%
TREASURERS CASH	649,146 100%	-0-	-0-	-0-	-0-	-0-	649,146 100%
TRANSPORTATION FUNDS	438,470 100%	-0-	-0-	-0-	-0-	-0-	438,470 100%
STATE BUILDING FUNDS	149,759 100%	-0-	-0-	-0-	-0-	-0-	149,759 100%
HOUSING FINANCE AGENCY	172,557 100%	-0-	-0-	-0-	-0-	-0-	172,557 100%
MINNESOTA DEBT SERVICE FUND	262,893 100%	-0-	-0-	-0-	-0-	-0-	262,893 100%
MISCELLANEOUS ACCOUNTS	188,549 100%	-0-	-0-	-0-	-0-	-0-	188,549 100%
TACONITE AREA ENVIR. PROTECTION	6,175 100%	-0-	-0-	-0-	-0-	-0-	6,175 100%
N.E. MINNESOTA PROTECTION	38,646 100%	-0-	-0-	-0-	-0-	-0-	38,646 100%
GRAND TOTAL	$2,443,483 24.99%	$2,418,711 24.74%	$1,021,075 10.45%	$821,572 8.40%	$2,678,937 27.40%	$393,307 4.02%	$9,777,085 100%

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

For period of
October 1, 1985 - December 31, 1985

Fund	Amount
Teachers Retirement Fund	-0-
Public Employees Retirement Fund	$ (8,000,000)
State Employees Retirement Fund	-0-
Public Employees Police & Fire	8,042,570
Highway Patrol Retirement Fund	4,000,000
Judges Retirement Fund	-0-
Post Retirement Fund	(4,912,110)
Supplemental Retirement Fund - Income	3,160,030
Supplemental Retirement Fund - Growth	990,045
Supplemental Retirement Fund - Fixed	1,430,275
Supplemental Retirement Fund - Bond	136,461
Minnesota Variable Annuity Fund	$ (254,976)
Total Retirement Funds Net Cash Flow	$ 4,592,295
Permanent School Fund	(16,703,381)
Total Net Cash Flow	$ (12,111,086)

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)
December 1983	(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
October	19	32	51	31	5.8	39.7	54.5	5748
November	(7)	(19)	(26)	18	6.5	40.1	53.4	5760
December	91	(71)	20	12	6.3	41.2	52.5	5864
January 1985	(5)	131	126	20	4.3	42.0	53.7	6188
February	30	(5)	25	27	4.3	41.2	54.5	6177
March	(1)	5	4	26	4.6	41.7	53.7	6213
April	(79)	17	(62)	23	5.9	40.7	53.4	6260
May	(13)	(41)	(54)	32	6.9	40.4	52.7	6602
June	284	118	402	408	6.8	41.2	52.0	6801
July	84	68	153	40	5.2	41.8	53.0	6812
August	79	4	83	30	4.3	43.3	52.4	6867
September	32	(10)	22	31	4.6	44.6	50.8	6751
October	50	52	102	26	3.3	44.8	51.9	6986
November	(29)	(22)	(51)	41	4.4	43.1	52.5	7299
December	(3)	(76)	(79)	16	5.5	43.1	51.4	7583

Tab C

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

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

February 20, 1986

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

FROM: Administrative and Asset Allocation Committees

SUBJECT: Committee Reports

The Committee reviewed the Legislative Auditor's report on the SBI's operations for the fiscal year ended June 30, 1985. The Board's financial statements received an unqualified opinion. (The opinion can be found in the Board's Annual Report.) The Legislative Auditor's report contained two recommendations designed to improve SBI procedures and controls. The first recommendation cites the need for additional monitoring of collateral backing securities on loan. In response, staff is developing a new computer system which will more efficiently track the market value of securities on loan and the collateral backing those loans. The Committee endorses the Legislative Auditor's recommendation and staff's monitoring system enhancements.

The second recommendation relates to the reimbursement of travel expenses for Board members and their staffs. At its June 1982 meeting, the Board allocated $5,000 of the SBI's fiscal year 1983 budget for travel by Board members and their staffs. The Legislative Auditor recommends that the Board annually develop a travel policy for Board members and their staffs. The Committee recommends that the Board adopt the following policy:

> For fiscal year 1986 and 1987, each Board member and/or staff may utilize up to $2,000 of the SBI's budget for travel. All travel shall be for SBI-related activities. Reimbursements shall comply with general State guidelines adopted by the Commissioner of Employee Relations.

The Committee addressed the subject of external performance measurement. The Board has retained Merrill Lynch to provide

AN EQUAL OPPORTUNITY EMPLOYER

this service over the last five years. However, Merrill Lynch has chosen to discontinue its performance measurement activities. The Committee discussed the available alternatives and recommends that the Board retain State Street Bank to provide performance measurement services. Because State Street is the master custodian for the bulk of the Board's assets, the Bank has timely and accurate access to the necessary accounting data. This recommendation offers the opportunity for an orderly and cost effective transition of performance measurement services. State Street has a sophisticated performance measurement system and considerable experience.

The Committee discussed the impending review of the Board's consultant. The Board has requested that its contract with Evaluation Associates be reopened for bids when the contract expires on July 1, 1986. The Committee recommends that a formal Request For Proposal (RFP) be prepared and distributed in April, with responses received and follow-up interviews conducted in May. A consultant should be recommended to the Board at its June meeting.

Finally, the Committee discussed the need to hire an organization which will assist staff in implementing the new Guaranteed Investment Contract (GIC) option of the Supplemental Investment Fund. This action is predicated on the passage of the Board's legislative package which expands the investment options of the Supplemental Investment Fund. This legislation appears to have strong support in both the House and Senate. The Committee recommends that the Board select a GIC adviser through an RFP process similar to that used to select the Board's consultant.

In both the selection of a consultant and a GIC adviser, the Committee recommends that the Board form a search committee. The search committees would be composed of representatives of each of the Board members, as well as an IAC member with expertise in the appropriate area.

Tab D

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

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

February 5, 1986

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

FROM: Equity Manager Committee

SUBJECT: Committee Report

The Committee has spent considerable time discussing the subject of performance-based fees. The Committee strongly supports the implementation of such fees for the Board's active equity managers at the beginning of the next fiscal year.

SBI staff presented to the Committee several alternative performance-based fee structures. After extensive discussion, the Committee and staff endorse a symmetrical fulcrum fee structure. Specific features of the recommended performance-based fee structure are presented in the staff position accompanying this report.

With respect to the current status of the Board's equity managers, the Committee can identify no points of serious concern at this time. The Committee recommends that normal manager monitoring continue.

AN EQUAL OPPORTUNITY EMPLOYER

EQUITY MANAGER UPDATE INTERVIEWS
SUMMARY NOTES

I. STAFF COMMENTS AND RECOMMENDATIONS

Staff discussed a number of important issues with the Board's equity managers. The subjects of primary importance were the construction of a normal portfolio for each manager, the implementation of performance-based fees, and the impact of the Board's South African resolution.

Staff believes that the managers have consistently implemented their stated investment approach. The only exception was the large cash position held by BMI for most of the last half of 1985. BMI's low equity position hurt its relative performance. The second half of 1985 saw the Board's growth managers outperform the value managers, reversing a pattern that had held for almost two years. Staff currently can find few sources of serious concern among the managers. BMI's poor performance results is one. Beutel Goodman's rapid account growth is another. Staff recommends that normal manager monitoring continue at this time.

II. RECENT MEETING DATES

MANAGER	DATE OF MEETING
Fred Alger Management	February 24
Alliance Capital	February 21
BMI Capital	February 18
Beutel Goodman	March 13
Forstmann-Leff	February 24
Hellman Jordan	February 19
IDS Advisory	February 19
Investment Advisers	February 18
Lieber & Company	February 28
Peregrine Capital	February 20
Waddell & Reed	March 18

III. ORGANIZATIONAL CHANGES

Two significant organizational changes have occurred since the last set of manager meetings. First, Investment Advisers was sold by Inter-Regional Financial Group to Hill Samuels, PLC, a London-based financial services company. At this time, staff does not view the terms of the sale as disruptive to investment management at IAI. Key personnel in the firm have agreed to long-term employment contracts. The firm has a revenue sharing arrangement with Hill Samuels that provides appropriate incentives for a continuance of IAI's investment style.

The sale may be a positive factor for the firm. The sale was brought about at the request of top personnel at IAI, who felt the firm no longer fit well with Inter-Regional Financial Group. Hill Samuels will provide a solid capital base and has agreed to allow IAI to operate as an independent entity.

The second significant organizational change occurred at Alliance Capital. The firm moved to consolidate its investment management operations. It closed its Chicago and Dallas offices and shifted accounts and personnel around to the other three Alliance offices. The Minneapolis Alliance office picked up almost $1 billion in additional assets. These assets included nine equity accounts valued at roughly $700 million. The Minneapolis Alliance office believes that it has the capacity to handle the additional equity accounts with its current personnel.

IV. ASSETS UNDER MANAGEMENT

	MARCH 1983		JUNE 1985		DECEMBER 1985	
	NUMBER	MARKET VALUE (MILL.)	NUMBER	MARKET VALUE (MILL.)	NUMBER	MARKET VALUE (MILL.)
Fred Alger	59	$1,645	77	$2,093	71	$2,514
Alliance	43	1,095	46	1,134	47	2,086
BMI Capital	5	160	17	277	14	260
Beutel Goodman	5	104	16	358	30	1,050
Forstmann-Leff	126	4,800	102	4,074	72	3,711
Hellman Jordan	22	440	29	664	33	1,158
IDS Advisory	87	3,361	81	3,087	73	3,369
Investment Advisors	79	1,001	89	1,403	91	1,793
Lieber & Company	14	341	17	469	19	853
Peregrine Capital	3	49	3	94	6	290
Waddell & Reed	6	471	9	605	10	748

As discussed in the last report on the Board's equity managers, only Beutel Goodman's rapid asset and account growth appears to be of serious concern. In the last six months, the firm's account load has almost doubled. This growth has been due largely to Beutel's successful performance in 1984 and early 1985. Staff has made its concerns known to Beutel several times. The firm's long-run growth target is 40-50 accounts and $1 billion under management. If the firm should now grow much above current levels, staff recommends that the Board consider at least a partial removal of assets from Beutel.

Forstmann-Leff and IDS, on the other hand, continue to experience erosion of their account base. This loss of clients continues despite recent strong performance by the two firms. At this point, the account loss appears to have had no serious impact on the firms' investment operations.

V. STAFF CHANGES

No significant personnel changes have occurred since the last set of equity manager meetings. Two firms hired additional portfolio managers. Guy Scott joined Hellman Jordan. He was formerly a portfolio manager with Frontier Capital and before that, Putnam Advisory. His addition represents Hellman Jordan's continued evolution from a small money manager to a billion dollar-plus manager. Richard Reach joined Forstmann-Leff as a portfolio manager/analyst. Reach was hired as part of the firm's efforts to strengthen its investment management staff after the loss of several top portfolio managers in recent years.

VI. INVESTMENT APPROACH

Considerable time was spent at the manager meetings discussing the concept of normal portfolios and their construction. Staff has conducted a large amount of research on this subject. These results and the normal portfolios constructed for each manager were presented.

With each manager, staff reviewed the results of analysis performed on representative past portfolios. The purpose of this analysis was to identify prominent portfolio characteristics that should be captured by the manager's normal portfolio. Staff then described the specific construction process used to design the manager's normal portfolio. The resulting financial characteristics of the normal portfolio were reviewed. Finally, the performance of the normal portfolio over the last two years versus the manager's actual performance was presented.

Staff has kept the Board's equity managers abreast of its research regarding normal portfolios over the last year. As a whole, the managers appeared comfortable with the normal portfolios designed for them. Staff believes that the normal portfolios will provide an appropriate benchmark against which to evaluate value added by the Board's equity managers.

V. PERFORMANCE-BASED FEES

Staff discussed the concept of performance-based fees with each of the managers. In addition staff described the proposed terms of the recommended performance-based fee structure. That proposed fee structure, specifically the symmetrical fulcrum fee, appeared to be well received by the majority of the managers. Several of the manages preferred the maintenance fee design. Only one manager, Lieber & Company, was reluctant to accept any performance-based compensation arrangement with the Board.

VI. SOUTH AFRICA

Staff discussed with each manager the Board's resolution regarding investments in companies doing business in South Africa. The current recommendations of the Board's South Africa Advisory Task Force were presented to each manager.

PERFORMANCE-BASED FEES

Staff Position Paper
January 1986

EXECUTIVE SUMMARY

Until recently, registered investment advisers were prohibited from entering into advisory agreements with pension plans if the advisers' compensations were based directly on performance. Instead compensation had to be made on a "flat fee" basis, whereby managers' fees were calculated as a specific percentage of the market value of assets under management.

In November 1985, the Securities and Exchange Commission lifted the prohibition on performance-based fees for most institutional investors. A wide range of fee structures is now permitted.

There are three principal rationales for performance-based fees. First, such fees are inherently fairer in that the client shares the risk of poor or good performance with the manager. Second, performance-based fees give a manager an incentive to carefully consider a client's risk-return preferences in constructing the client's portfolio. Finally, performance-based fees provide the manager with an inducement to pursue all avenues of maximizing client portfolio returns.

The appropriate benchmark against which to calculate manager performance-based compensation is a normal portfolio. A normal portfolio is a customized index that reflects a manager's particular investment style. At times a manager may perform well (or poorly) simply because his investment style is "in favor" (or "out of favor"). Normal portfolios compensate for this factor and can be used to more effectively evaluate the true value added to the investment process by a manager.

Staff considered three performance-based fee structures. Each was designed to pay a manager fees roughly equal to those now earned under the flat fee system, if the manager can outperform his normal portfolio by two percentage points annually. The three fee structures, symmetrical fulcrum, maintenance, and asymmetrical fulcrum differ technically in terms of base fee levels and the rates at which excess performance (positive and negative) is shared with a manager. More importantly, the fee structures differ as to the risk-taking incentives they will offer managers.

Staff recommends that the symmetrical fulcrum fee, as proposed, be adopted by the Board to compensate its active equity managers. This fee structure is the simplest and most conservative. Particularly in the initial stages of performance-based fee implementation, simplicity and conservatism are desirable attributes. As the Board and the investment community become more experienced with performance-based fees, the proposed fee structure likely will be altered.

INTRODUCTION

Since the initiation of the SBI's external investment program, the Board has compensated its managers based solely on assets under management. That is, each manager's fee is calculated as a specific percentage of the market value of the assets that the manager is investing. These fees, referred to as flat fees, are paid regardless of the manager's absolute or relative performance.

Performance-related compensation under a flat fee system is provided for only in an indirect fashion. If the manager performs well (poorly) assets under management will rise (fall) in value and, hence, dollar income will rise (fall). Further, if the manager performs well, presumably the firm will be allowed to continue managing the account. If the manager performs poorly, presumably the firm eventually will lose the account. Beyond these considerations, compensation is unaffected by the manager's investment performance.

Until recently, registered investment advisers were prohibited from entering into advisory agreements with pension plans if the advisers' compensation were based directly on performance. However, the Securities and Exchange Commission has now lifted this total prohibition. Registered investment advisers now may negotiate, subject to certain constraints, performance-based compensation arrangements with clients of substantial size. Given the SEC's recent decision, the purpose of this staff position paper is to propose a performance fee structure that the SBI could implement for its active external equity managers.

RECENT SEC RULING

The Investment Advisers Act of 1940, administered by the SEC, regulates the activities of most firms offering investment advisory services. Portions of the Act restrict the form of compensation paid to investment managers. The Investment Advisers Act prohibits the use of performance fees except under very specific conditions. Section 205, paragraph 1, states that no investment adviser may enter into a contract that "provides for compensation to the investment adviser on the basis of a share of capital gains upon or capital appreciation of the funds or any portion of the funds of the client."

In 1970, Congress gave the SEC wide latitude to grant exemptions to this prohibition. Since that time the SEC has permitted relatively few individual exemptions. In 1983, the SEC considered a rule that would have provided a general exemption for clients of substantial size. This proposed ruling was withdrawn after a comment period. The reasons for the withdrawal were never clearly explained. Nevertheless, in March 1985, the SEC again proposed a rule almost identical to the 1983 version. In the case of both the 1983 and 1985 proposed rules, the SEC was prompted by the concern that "the general ban on performance fees was unnecessary for certain clients." During the SEC's comment period on the 1985 proposal a number of responses were received, the vast majority favorable to the proposal. The SBI was one of the favorable respondents. Based on these responses and its staff's analysis, on November 14, 1985, the SEC adopted the proposed general exemption.

For qualifying clients the SEC's general exemption allows investment managers almost unlimited authority to negotiate performance-based fee contracts. A registered investment adviser may now receive performance-based compensation from a client if:

1) The client has at least $500,000 under the management of the adviser or the adviser reasonably believes that the client has a net worth of at least $1,000,000.

2) The adviser's performance fee is based on unrealized, as well as realized, capital gains and losses.

3) The performance measurement period is at least one year.

4) The adviser discloses certain information to the client.

5) The adviser reasonably believes that the advisory contract is an arms-length transaction and that the client understands the performance fee contract and its risks.

The funds managed for the Board by external managers easily meet the SEC's size requirement. Further, the three performance-fee structures discussed in this paper fully satisfy the other SEC conditions.

RATIONALE FOR PERFORMANCE-BASED FEES

There are three principal arguments supporting the use performance-based fees over flat fees. First, performance-based fees provide for a more equitable relationship between a client and a manager. Despite the best efforts of money managers, investment results are inherently uncertain. With flat fees, the client bears all risk of unsatisfactory performance. Under performance-based fees, the client shares the risk of poor results with the money manager. The client is not required to pay high fees for inferior performance. Conversely, the manager will be well paid for successful results.

Second, performance-based fees produce a more efficient relationship between a client and a manager. With flat fees, the manager has no strong incentive to carefully consider a client's risk-return preferences when constructing the client's portfolio. Terminating a manager for insufficient attention to client preferences usually is not a realistic option. Performance-based fees, on the other hand, tie a manager's compensation to performance relative to a specific target. This target represents the risk-return preferences of the client. Because of this tie, the manager is forced to consider the performance implications of active management decisions relative to the client's desired target.

Third, performance-based fees offer a more comprehensive relationship between a client and a manager. Flat fees give the manager no inducement to pursue all avenues of maximizing total portfolio returns, subject to the client's risk-return preferences. But under performance-based fees, a manager has a monetary incentive to focus on all aspects of the investment business that impact a client's portfolio. These aspects include such often overlooked details as commission costs, market impact of trades, dividend reinvestment programs, etc.

POSSIBLE TYPES OF PERFORMANCE COMPENSATION

The SEC's recent ruling permits a wide range of performance fee structures. Nevertheless, staff believes that the actual number of viable performance fee structures is limited. This paper examines three of the most feasible forms from the plan sponsor's standpoint. This section briefly describes each of the

three forms. Recommended specific terms of these fee structures are presented later.

The first type of performance fee structure is a symmetrical fulcrum fee. A symmetrical fulcrum fee establishes a base compensation for a manager and a performance target against which additional compensation (positive and negative) will be determined. If the manager's return matches that of the target no additional compensation is paid. The manager simply receives the base fee. If performance exceeds the target, an additional predetermined fee will be paid the manager. If performance falls short of the target, the base fee will be reduced by a predetermined amount. As the name implies, the symmetrical fulcrum fee makes performance compensation fluctuate symmetrically around the base compensation. That is, superior performance of a certain amount relative to the target produces additional payments to a manager equivalent to the amount withheld from the manager for the same deviation in performance below the target.

Under a symmetrical fulcrum fee, the base compensation would be set at a rate similar to fees presently paid under a flat fee system. (Flat fees currently paid by institutional investors to active equity managers average approximately .50% of assets under management.) Performance above (or below) the target is shared with the manager as described above. The symmetrical fulcrum fee is designed so that the manager will have to perform exceptionally well (poorly) relative to the target to receive the maximum (minimum) performance compensation.

The second form of performance fee structure is a maintenance fee. A maintenance fee, like the symmetrical fulcrum fee, sets a base compensation and performance target for a manager. However, unlike the symmetrical fulcrum fee, the maintenance fee establishes a very low base compensation, only a fraction of the current flat fees paid most active equity managers. Further, the low base compensation is the minimum amount the manager will receive. Even if the manager underperforms the target, significantly, the base compensation will still be paid.

The security of a positive minimum total fee is offset by a more volatile fee structure than under the symmetrical fulcrum fee. Excess returns (positive and negative) are shared with the manager at a higher rate. Hence, the total fee paid the manager will go to the maximum or to the minimum more quickly than under the symmetrical fulcrum fee. From the manager's perspective this feature makes the maintenance fee more risky than the symmetrical fulcrum fee.

Finally, the third type of performance fee is an asymmetrical fulcrum fee. Like the symmetrical fulcrum fee, this fee structure sets a base compensation roughly equal to that paid under current flat fees. However, unlike the symmetrical fulcrum fee, performance above target is shared at a lower rate than is performance below target. Hence, the name asymmetrical fulcrum fee. This structure is designed to reflect the plan sponsor's risk aversion. That is, superior performance gives the plan sponsor less "satisfaction" than does inferior performance of an equal absolute magnitude cause plan sponsor "dissatisfaction."

APPROPRIATE PERFORMANCE TARGETS

Performance-based fees are vacuous if they do not tie a manager's compensation to an appropriate performance target. If the target is not consistent with the manager's investment style, then the manager's results relative to that target will be essentially random. In such cases, performance-based fees may fail to reward (penalize) a manager for positive (negative) results within his control or may reward (penalize) a manager for results out of his control. Either situation is inimical to a sound long-term investment program.

The appropriate performance targets for the Board's equity managers are customized indices (i.e., normal portfolios) that reflect the managers' specific investment styles. Normal portfolios are predicated on the concept that investment managers follow distinct approaches in designing portfolios. These approaches will vary from manager to manager. For example, "Growth" managers will hold different portfolios and may produce radically different investment results than managers pursuing a "Value" style. The performance targets assigned to these and other types of managers should reflect the fundamental differences in investment style. Normal portfolios as performance targets are clearly consonant with SEC directives which state that "in determining whether an index is appropriate for a particular investment company, directors should consider factors such as the volatility, diversification of holdings, types of securities owned and objectives of the investment company." (For additional information on normal portfolios, see the staff position paper on the subject contained in the Board's second quarter 1985 report.)

PERFORMANCE FEE DESIGN

The preceding sections have provided a general introduction to three performance-based fee structures and discussed the use of normal portfolios as performance targets. The discussion now turns to staff's opinions regarding desirable specific terms and conditions of the three performance-based fee structures.

In a number of respects, the proposed designs of the performance-based fees are similar. The following standard terms are proposed for incorporation in each fee structure.

- One base fee and one performance fee schedule will apply to all SBI active external equity managers.
- The base fee will be paid quarterly calculated as a percentage of total assets managed at quarter-end.
- The performance fees will be based on the managers' total fund returns relative to their individual normal portfolios, gross of base fee. It will be calculated as a percentage of the managers' average quarterly assets over the performance measurement period.
- The performance measurement period will be one full fiscal year ending June 30.
- Performance fees will be calculated assigning a one-third weight to the most recent year's relative results and a two-thirds weight to trailing three-year relative results.
- Both the managers' total fund performances and the returns on the managers' normal portfolios will be computed by independent consultant(s) designated by the SBI.
- If a manager-SBI contract is terminated, any outstanding performance fee balances must be paid in full.

As described in detail in the next three sections, the primary technical differences among the three proposed performance fee structures are the base fee levels and the rates at which excess performance (positive and negative) is shared with a manager.

Despite these differences, each fee structure is designed to pay a manager total compensation roughly equal to that now paid under flat fees, if the manager can add "adequate" value to his investment style. That is, the SBI always has the option to passively replicate, at a low cost, any manager's investment style by simply holding the manager's normal portfolio. An active manager should be expected to make investment decisions that produce results superior to the returns earned by a passive investment in the manager's particular style. Staff believes that an active manager should be able to outperform his normal portfolio by at least two percentage points annually (before fees). Thus, the proposed fee structures are designed to offer compensation higher than amounts paid under flat fees only if a manager outperforms his normal portfolio by more than this expected increment. Further, if a manager fails to outperform his normal portfolio by the expected two percentage points, he will earn compensation below the amount now paid under flat fees.

It should also be noted that the calculation of performance fees based on both one-year and three-year relative results is designed to provide immediate and longer-term incentives to a manager. The inclusion of one-year relative results prevents a manager's compensation from being excessively influenced over an extended period by one very successful or unsuccessful year. On the other hand, the incorporation of trailing three-year relative results gives a manager an incentive to adopt a long-term investment approach.

SYMMETRICAL FULCRUM FEE DESIGN

In addition to the standard performance fee terms outlined in the previous section, staff proposes that a symmetrical fulcrum incorporate the following features:

- The standard base fee will average .50% on all amounts under management.
- The performance fee schedule will be:

Manager's Return less Return on Normal Portfolio	Performance Fee
+200 bp	0
+201 bp on up	One basis point in additional fee for every fifteen basis points in positive excess returns, up to a total performance fee of 50 basis points
+199 bp on down	One basis point in decreased base fee for every fifteen basis points in negative excess returns, down to a total performance fee of -50 basis points

The performance fee is symmetrical, adding to and subtracting from a manager's base fee in equivalent amounts for equal levels of over and underperformance. The fee structure is constructed so that a manager's total fee can range from 1.00% to 0% of assets under management. The performance fee structure is conservatively designed so that the manager must significantly outperform (underperform) his target to receive the maximum (minimum) total fee. Excess returns (positive and negative) are shared with the manager on a one-for-fifteen basis. Staff believes that this conservative approach is appropriate

particularly in the early phases of performance fee use. As the Board gains more experience the performance fee schedule may be altered.

MAINTENANCE FEE DESIGN

In addition to the standard terms, staff proposes that a maintenance fee incorporate the following features:

- The standard base fee will be .10% on all amounts under management.
- The performance fee schedule will be:

Manager's Return less Return on Normal Portfolio	Performance Fee
-80 bp on down	0
-79 bp on up	One basis point in additional fee for every seven basis points in positive excess returns up to a total performance fee of 90 basis points

The maintenance fee establishes a ten basis point base which serves as a floor level of compensation. A manager can earn no less than this fee, regardless of how poorly he might perform. While this base fee is considerably below that earned under a flat fee system, it does give a manager with a certain amount of cash flow security. This certainty is not provided under the symmetrical fulcrum fee.

On the other hand, the maintenance fee shares excess returns (positive and negative) with a manager at a more aggressive rate than under the symmetrical fulcrum fee. This reward sharing ratio is one-for-seven instead of one-for-fifteen. As a result, the

manager approaches the maximum 1.00% total fee, as well as the minimum .10% total fee, much more quickly than under the symmetrical fulcrum fee. This feature makes the manager's cash flow more risky under the maintenance fee.

ASYMMETRICAL FULCRUM FEE DESIGN

In addition to the standard terms, staff proposes that an asymmetrical fulcrum fee incorporate the following features:

- The standard base fee will be .20% on all amounts under management.

- The performance fee schedule will be:

Manager's Return less Return on Normal Portfolio	Performance Fee
+200 bp	0
+200 bp on up	One basis point in additional fee for every twelve basis points in positive excess returns up to a total performance fee of 50 basis points
+199 bp on down	One basis point in decreased fee for every ten basis points in negative excess returns, down to a total performance fee of -50 basis points.

The asymmetrical fulcrum fee allows total fees to move both above and below the base fee with an upper limit of 1.00% and a lower limit of 0%, the same as the symmetrical fulcrum fee. But a manager is rewarded more generously for performance above the target than he is penalized for equivalent performance below the target. Specifically, performance above the target will be split

one-for-twelve with a manager. Performance below the target will be split one-for-ten. Again, as with the symmetrical fulcrum fee, these reward sharing ratios are fairly conservative. As a Board's experience with performance-based fees increases, these reward sharing ratios could be altered.

PERFORMANCE FEE EXAMPLES

To aid in understanding the mechanics of the three fee structures, several hypothetical examples are presented in Table 1. The examples are designed to demonstrate the compensation that would be paid under each fee structure, assuming various performance results by a given manager. These results range from significantly below the manager's normal portfolio return to significantly above the normal portfolio return.

At the point where a manager outperforms his normal portfolio by 200 basis points, all three fee structures yield the same total compensation (50 basis points). Moving away from that point, the fee structures offer a manager varying compensation risks and opportunities.

For returns below target, a manager receives the lowest compensation from the maintenance fee for a fairly wide range. Within this range, the symmetrical and asymmetrical fulcrum fees both offer compensation above the maintenance fee, although the asymmetrical fulcrum fee penalizes the manager more than the symmetrical fulcrum fee. However, for performance well below the normal portfolio, both the symmetrical and asymmetrical fulcrum fees go to zero, while the maintenance fee offers a minimum 10 basis points.

TABLE 1
PERFORMANCE-BASED FEE EXAMPLE RESULTS
(Fees in Basis Points)

	Manager's Return Less Return on Normal Portfolio (In Basis Points)	Symmetrical Fulcrum			Maintenance			Asymmetrical Fulcrum		
		Base Fee	Performance Fee	Total Fee	Base Fee	Performance Fee	Total Fee	Base Fee	Performance Fee	Total Fee
Scenario A	- 800	50.0	-50.0	0.0	10.0	0.0	10.0	20.0	- 20.0	0.0
Scenario B	- 700	50.0	-50.0	0.0	10.0	0.0	10.0	20.0	- 20.0	0.0
Scenario C	- 600	50.0	-50.0	0.0	10.0	0.0	10.0	20.0	- 20.0	0.0
Scenario D	- 500	50.0	-46.7	3.3	10.0	0.0	10.0	20.0	- 20.0	0.0
Scenario E	- 400	50.0	-40.0	10.0	10.0	0.0	10.0	20.0	- 20.0	0.0
Scenario F	- 300	50.0	-33.3	16.7	10.0	0.0	10.0	20.0	- 20.0	0.0
Scenario G	- 200	50.0	-26.7	23.3	10.0	0.0	10.0	20.0	- 10.0	10.0
Scenario H	- 100	50.0	-20.0	30.0	10.0	0.0	10.0	20.0	0.0	20.0
Scenario I	0	50.0	-13.3	36.7	10.0	11.4	21.4	20.0	10.0	30.0
Scenario J	100	50.0	- 6.7	43.3	10.0	25.7	35.7	20.0	20.0	40.0
Scenario K	200	50.0	0.0	50.0	10.0	40.0	50.0	20.0	30.0	50.0
Scenario L	300	50.0	6.7	56.7	10.0	54.3	64.3	20.0	38.3	58.3
Scenario M	400	50.0	13.3	63.3	10.0	68.6	78.6	20.0	46.7	66.7
Scenario N	500	50.0	20.0	70.0	10.0	82.9	92.9	20.0	55.0	75.0
Scenario O	600	50.0	26.7	76.7	10.0	90.0	100.0	20.0	63.3	83.3
Scenario P	700	50.0	33.3	83.3	10.0	90.0	100.0	20.0	71.7	91.7
Scenario Q	800	50.0	40.0	90.0	10.0	90.0	100.0	20.0	80.0	100.0
Scenario R	900	50.0	46.7	96.7	10.0	90.0	100.0	20.0	80.0	100.0
Scenario S	1000	50.0	50.0	100.0	10.0	90.0	100.0	20.0	80.0	100.0
Scenario T	1100	50.0	50.0	100.0	10.0	90.0	100.0	20.0	80.0	100.0
Scenario U	1200	50.0	50.0	100.0	10.0	90.0	100.0	20.0	80.0	100.0

For performance above the normal portfolio by more than expected results, the maintenance fee is consistently more generous than the other two fee structures. Further, the asymmetrical fulcrum fee is relatively more rewarding than the symmetrical fulcrum fee.

DIFFERENCES IN RISK-TAKING INCENTIVES

The three fee structures described above incorporate a number of different features. However, in terms of their impact on manager-client relationships, they are basically similar. Each fee structure possesses the three advantages of performance-based fees over flat fees discussed earlier. That is, each creates a more equitable, efficient and comprehensive relationship between a money manager and client.

However, the three fee structures have at least one substantial difference. They differ in how they potentially will affect a manager's attitude toward risk-taking. Risk-taking, in this context, is defined as holding a portfolio that differs from the normal portfolio and, hence, has the potential to add value to (or detract value from) the normal portfolio. The SBI's managers, like any others, can be expected to react to performance fees in a way that maximizes their self-interest. The task is to design a fee structure that causes that action to be in the best interest of the SBI as well.

The symmetrical and asymmetrical fulcrum fees are likely to induce a manager to take less risk than will the maintenance fee. Passive management relative to the normal portfolio will produce a reasonably comfortable level of fee income. That is, if a manager

holds a portfolio that resembles the normal portfolio, thereby producing returns which equal those of the normal portfolio, he can still earn a reasonably high fee under these two structures. Deviating from the normal portfolio increases opportunities to earn more than the passive fee, but also runs the risk of earning less, particularly a zero fee at a minimum.

The maintenance fee may induce a manager to take on more risk than the other two fee structures. In a sense the manager holds an option on the SBI. If his performance is below the normal portfolio he will receive the minimum 10 basis points base fee. While this base compensation low relative to flat fees, the manager can only do better. Thus, he has an incentive to make significant active bets. The concern would be whether those bets might be excessive relative to the client's objectives. Certainly, active managers should be encouraged to take risks. The only way they can add value to their investment style is to deviate from their normal portfolios. Yet those active bets should be tempered by the understanding that performance fee penalties will be assessed if the active bets should prove to be grossly incorrect.

Which of these three fee structures will result in an optimal level of risk-taking on the part of the managers is difficult to anticipate. Various managers may react differently to any one of the structures.

DISADVANTAGES OF PERFORMANCE FEES

A number of objections to performance-based fees have been raised. Some of these arguments have merit and should not be

dismissed lightly. However, staff believes that these objections can be adequately addressed and that on balance performance-based fees will enhance client-manager relationships.

It has been argued that performance-based fees may cause a manager to adopt a short-run outlook, detrimental to the client's long-run interests. Staff believes quite the contrary. The prevailing plan sponsor focus on short-run performance, and the resulting rapid termination of poorly performing managers, has fixated most managers on short-run results. Staff believes that a client will be less likely to fire a manager performing poorly quickly if the manager is penalized through performance-based fees. Therefore, by lowering the chances of hasty terminations, performance-based fees are likely to cause a manager to adopt a long-run investment perspective. Further, because a manager's compensation is tied to his long-run performance, he has an incentive to avoid short-run decisions that might detract from longer-term results.

Another objection to the use of performance-based fees is that they will cause a manager to take excessive risks. Staff has discussed that issue earlier in this paper. If the appropriate performance fee structure is used, the incentive for a manager to take undue risks can be controlled. Further, with an adequate manager monitoring program in place, any excessive risk positions by a manager can be quickly identified and corrected.

The concern also has been raised that the techniques used to distinguish successful performance are too crude and that manager compensation should not be based on an inadequate methodology. It is true that the measurement of active management ability is

imprecise. The use of normal portfolios, which reflect managers' distinct investment styles, is one means of confronting this problem. Nevertheless, a manager's results, relative to his normal portfolio, will still reflect a considerable degree of chance. That problem is inherent to the investment process. If a manager's normal portfolio is properly specified, however, then over time that portion of the manager's returns attributable to chance should wash out, leaving the results due to management skills.

Finally, it has been argued that performance-based fees may cause a manager to pay less attention to a poorly performing account. The manager may believe that the account's results are so poor that even strong future performance is unlikely to salvage results and produce adequate compensation. Staff believes that this potential problem is handled best by the inclusion of one-year performance results in the fee calculation. If the performance fees were based solely on results over several years, it might be possible for a manager to fall far enough behind his normal portfolio that chances of a catch-up would be remote. Under the proposed structure, such a scenario is unlikely.

RECOMMENDATION

Staff strongly supports the use of performance-based fees to compensate active equity managers. Staff believes that the advantages of properly designed performance-based fees far outweigh the potential disadvantages. Each of the three performance-based fees structures discussed in this paper offers the prospect of increased equitability, efficiency and comprehensiveness in client-manager relationships.

Among the three fee structures staff believes that the symmetrical performance fee is the superior design. It is the simplest and most conservative of the three fee structures. Particularly in the initial stages of performance-based fee implementation, simplicity and conservatism are probably desirable attributes.

As discussed previously, the maintenance fee may encourage a manager to assume excessive risk. It is true that the manager's risk position can be monitored by the client and corrective action initiated if necessary. Nevertheless, reducing the incentive to take excessive risk seems more reasonable.

The asymmetrical fulcrum fee may also be a very workable structure. However, with its two reward sharing ratios depending upon whether a manager produces superior or inferior performance, it does not have the simplicity of the symmetrical fulcrum fee.

Tab E

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

EXECUTIVE DIRECTOR
HOWARD J. BICKER

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

February 6, 1986

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

FROM: Alternative Investment Committee

SUBJECT: Alternative Investment Strategy

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 $600 million of the $4.0 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 investments that provide diversification by industry type, stage of corporate development and location.

To date, the SBI has committed to ten commingled venture capital funds for a total commitment of $147.5 million. These commitments substantially complete the SBI's current venture capital asset allocation.

During the last quarter, the Alternative Investment Committee met with and conducted annual review sessions with three of the SBI's venture capital managers: Summit Venture Partners, Northwest Venture Partners, and First Century Venture Partners. In general, the managers expressed the need for cautious investing and a slower than expected capital deployment rate in the face of the current depressed venture capital environment.

Investments that have been made are being monitored closely and are, in aggregate, valued near cost. All of the managers are in the early stages of their investment programs.

Also in the last quarter, the Alternative Investment Committee considered ways of handling possible stock distributions from venture capital limited partnerships in which the SBI has an investment. The Committee recommends the Board approve hiring T. Rowe Price Associates to manage the stock distributions. T. Rowe Price Associates offers one of the largest and most experienced emerging growth stock research and management staffs in the industry. In addition, their stock trading desk has particular expertise in selling, inexpensively and quickly, thinly-traded small capitalization stocks. This recommendation is subject to final negotiation and review by the Attorney General. A detailed review of T. Rowe Price Associates is attached.

REAL ESTATE

The real estate investment strategy involves three steps. 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.

Currently, the SBI is committed to ten commingled real estate funds for a total commitment of $325.0 million. These commitments, and projected investments (subject to Board approval) in follow-on funds with existing managers, will substantially complete the SBI's real estate investment strategy and allocation.

RESOURCE FUNDS

The strategy for resource investments requires that investments be made in oil and gas partnerships that focus investment in conservative, lower risk type investments (i.e., proved producing properties and royalties diversified geographically and/or geologically).

Currently, the SBI is committed to four commingled oil and gas funds for a total commitment of $67.5 million. Progress is being made towards completing the SBI's remaining resource allocation.

During the latest quarter, the Alternative Investment Committee met with and conducted annual review sessions with the SBI's two resource managers: Apache Corporation (Apache Loans I and II) and First Reserve Corporation (Amgo Funds I and II).

The first Apache loan commitment has not been significantly invested due to delays in developing and equipping oil and gas prospects in the Apache/Shell joint venture. Shell, the operator

of the venture, is awaiting better oil and gas pricing before expending large amounts of money developing indicated discoveries in the Gulf of Mexico.

The second Apache loan has mostly been drawdown to finance the acquisition of certain developed and partially developed oil and gas properties. Preliminary indications are that some of the partially developed properties may have greater potential than originally thought. However, more time and further drilling is needed before any projections are altered.

First Reserve has been very active working with existing Amgo I and II portfolio companies to improve their operations, obtain necessary financing or to restructure in the face of the sluggish oil and gas markets. With the recent full investment of both Amgo I and II, First Reserve is offering subscriptions to a successor fund, Amgo III.

The Alternative Investment Committee recommends the Board approve a $5 million investment in Amgo III, the proposed $30 million successor fund to Amgo I and II. Amgo III will be essentially similar to Amgo I and II. This recommendation is subject to final negotiation and Attorney General approval.

FUTURE CONSIDERATIONS

Going forward, the Alternative Investment Committee agenda will include:

- Conduct annual review sessions with existing alternative investment managers.

- Review the SBI's alternative investment strategy and asset allocation guidelines.

- Evaluate other commingled funds for possible investment.

- Examine ways of improving performance monitoring of existing alternative investment managers.

Recommendations regarding these issues will be made to the Board when appropriate.

VENTURE CAPITAL MANAGER PROFILE

I. BACKGROUND DATA

FUND MANAGER:	T. Rowe Price Associates, Inc.
TYPE OF FUND:	Managed IPO Service
INTERVIEW DATE:	1/9/86
REPRESENTING MANAGER:	Preston Athey, Greg Donovan, Tim Ebright, Jon Greene, Ed Mathius, Gene Waldron
MANAGER CONTACT:	Eugene M. Waldron
ADDRESS:	100 East Pratt Street, Baltimore, MD 21202
TELEPHONE:	301-547-2167

II. ORGANIZATION AND STAFF

The T. Rowe Price Managed Initial Public Offering (IPO) Service will be managed by the Emerging Company Investment Division of T. Rowe Price Associates, Inc., a large privately held investment organization.

T. Rowe Price Associates, Inc. (TRPA), founded in 1937, provides equity and fixed income investment management services for separate account clients, both institutional and individual. In addition, TRPA manages fourteen no-load mutual funds (equity, fixed income and money market). TRPA also serves as general partner and investment manager of T. Rowe Price Threshold Fund, L.P., a $75 million late-stage venture capital limited partnership. As of September 30, 1985, TRPA had over $17 billion in total assets under management by 59 investment professionals.

The Emerging Company Investment Division of TRPA specializes in emerging growth company research and investment with over $1.7 billion in public and private small company investments under management, both in mutual funds and for separate account clients. Staff includes 27 investment professionals.

Within the Emerging Company Investment Division, Preston Athey, Vice President and Portfolio Manager, will be responsible for the management of the IPO Service. Preston will utilize other members of the 27 person Emerging Company Investment Division, when needed.

III. INVESTMENT STRATEGY AND PROCESS

During the life or term of the SBI's venture capital limited partnership investments, cash and/or securities will be distributed to the SBI as portfolio companies mature and go public or merge with other companies or are sold. The Managed IPO Service is being proposed to manage and eventually sell the securities that are distributed.

Preston G. Athey, a Portfolio Manager in the Emerging Growth Company Investment Division, will be responsible for overseeing the managment of the distributed securities. The Managed IPO Service will be managed in the same manner as other Emerging Company Investment portfolios at TRPA.

TRPA conducts original industry and company fundamental research. A substantial internal equity investment Research Division, staffed by analysts, statisticians and support personnel, conducts the original industry and company research, utilizing such sources as inspection of corporate activities, management interviews, company-prepared information, financial information published by companies and/or filed with the SEC, and field checks with participants in the industry such as suppliers or competitors. Good management and a fertile area of growth in which to operate represent two of the most important criteria. Each analyst attempts to translate the broad macroeconomic outlook into a more specific forecast of an industry's and company's likely performance over the near- and long-term horizons.

In addition, TRPA utilizes research provided by brokerage firms in a supportive capacity; information is received from private economists, political observers, foreign commentators, government experts, and market and security analysts.

Investment positions are typically sold when the analyst and portfolio manager conclude that an investment holding will appreciate no faster than the market in general.

IV. INVESTMENT AGREEMENT

FEES

Based on an annual calculation, TRPA will be paid one-eighth of net realized gains. No other fees will be charged.

For purposes of calculating net realized gains, the cost basis of portfolio shares will be the last sale price at the time it is received by TRPA. The cost basis will increase each year by the 91 day Treasury bill rate.

TERM

There will be no specified holding period or term, unless specifically required by the client or limited by SEC trading restrictions. The management agreement may be terminated by either party at any time upon written notice to the other.

DISTRIBUTIONS

Only securities distributed by the venture capital limited partnerships will be included in the Managed IPO Service. No securities may be bought. Sales proceeds and dividends will be distributed and not reinvested.

T. ROWE PRICE ASSOCIATES

EMERGING COMPANY INVESTMENT DIVISION

Edward J. Mathias, Director

Portfolio Management

Public Companies

Edward J. Mathias
Preston G. Athey
Debra J. Diamond
Timothy G. Ebright
Patrick A. Hopf
Francis C. Rienhoff

Private Companies

Jonathan M. Greene
Douglas O. Hickman
Patrick A Hopf
Randolph B. Kilmon
Junerose C. Sordoni
Eugene M. Waldron, Jr.

Investment Research

Brian W. H. Berghuis - Consumer Products, Services
Debra J. Diamond - Health Care
Timothy G. Ebright - Business Services, Media
William L. Edwards - Software, Specialty Chemicals
Douglas O. Hickman - Financial Services, Energy
Patrick A. Hopf - Health Care, Special Situations, Food Services & Distributors
Robert C. Howe - Technology
Randolph B. Kilmon - Semiconductors
J. Mark Lambright - Telecommunications
Roger B. McNamee - Electronics & Defense, Distributors
John A. Powell - Manufacturing
Francis C. Rienhoff - Retailing
David L. Warnock - Special Situations, Medical Devices, Food Services

Consultant

Anita M. Iannone - Specialty Retailing

Traders

Gregory V. Donovan
Marcy L. Fisher

Support

Michael N. Christodolou - Assistant Analyst, Technology
Jill L. Hauser - Assistant Analyst, Technology
Francies W. Hawks - Administrator
Florence M. Dougherty - Assistant Analyst
Patricia B. Maring - Statistician
Susan R. Winter - Assistant Analyst, Consumer

ALTERNATIVE EQUITY INVESTMENTS

FUND	COMMITMENT (millions)	FUNDED (millions)	INCEPTION DATE	FUND SIZE (millions)	TYPE/ STRATEGY
REAL ESTATE:					
Equitable	$ 40.0	$ 40.0	10/81	$2500.0	Open end diversified
Aetna	40.0	40.0	10/81	1600.0	Open end diversified
Prudential	40.0	40.0	9/81	5200.0	Open end diversified
RREEF	75.0	44.0	4/84	773.0	Closed end diversified
Heitman I	20.0	20.0	6/84	113.0	Closed end diversified
Heitman II	30.0	15.0	10/85	238.0	Closed end diversified
TCW	40.0	30.0	7/85	216.0	Closed end specialized investment vehicle
State Street	20.0	15.0	7/85	103.0	Closed end specialized investment vehicle
Washington Square	10.0	0.0	---	100.0	Closed end specialized Minnesota only
First Asset	10.0	0.0	---	100.0	Closed end specialized Minnesota only
Total:	$325.0	$243.0			
Target:	($400 Million or 10% of Basic Retirement Funds)				
VENTURE CAPITAL:					
Norwest	$ 10.0	$ 7.0	1/84	$ 60.0	Hi-tech early stage MN/OR/AZ offices
KKR I	25.0	25.0	3/84	1000.0	Lo-tech mature NY/CA offices
KKR II	50.0	0.0	12/85	2000.0	Lo-tech mature NY/CA offices
Summit	10.0	5.0	12/84	93.0	Hi-tech later stage MA office
First Century	10.0	2.5	12/84	100.0	Hi-tech early stage NY/CA offices
DSV IV	10.0	7.0	4/85	60.0	Hi-tech early stage NJ/CA offices
Matrix	10.0	2.5	7/85	70.0	Hi-tech early stage MA/CA offices
Inman/Bowman	7.5	2.0	6/85	44.0	Hi-tech early stage CA office
Allied	5.0	1.6	7/85	40.0	Lo-tech later stage DC office
Superior Venture	10.0	0.0	---	50.0	Hi-tech early stage MN office
Total:	$147.5	$ 52.6			
Target:	($100.0 Million or 2.5% of Basic Retirement Funds)				
RESOURCE:					
Amgo I	$ 15.0	$ 15.0	7/81	$ 144.0	Debt with royalty or equity
Amgo II	7.0	7.0	2/83	36.0	Debt with royalty or equity
Apache I	22.5	0.3	5/84	150.0	Debt with royalty or equity
Apache II	23.0	22.4	10/85	180.0	Debt with royalty or equity
Total:	$ 67.5	$ 42.3			
Target:	($100.0 Million or 2.5% of Basic Retirement Funds)				

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

FIRM NAME:	First Reserve Corporation
FUND NAME:	Amgo I
CONTACT:	John 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 FUND INVESTMENTS CURRENT TOTAL		CASH RETURNS TO SBI				
#	$ Cost	CALENDAR 1982	CALENDAR 1983	CALENDAR 1984	CALENDAR 1985	CUMULATIVE SINCE INCEPTION
23	$133.0 Million	$714,070.0	$617,200.0	$576,100.0	$468,200.0	$2,375,570.0

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

LOCATION	%	INDUSTRY GROUPS	%
Texas	21.5%	Acreage	6.5%
Oklahoma	21.5	Drilling	10.5
Louisiana	17.0	Equity	6.5
Rocky Mtns.	13.0	Production	22.0
Mississippi	8.4	Royalty	24.5
California	7.2	Surface Facilities	0.0
Gulf Coast	5.4	Conv. Note and Preferred	29.0
Other	6.0	Other	1.0

STAFF COMMENTS: Conditions in the oil and gas industry were difficult in 1985 and will likely continue that way into 1986. First Reserve is working with the portfolio companies most vulnerable to continued downturns in oil and gas prices. The objective is to minimize overhead and further reduce debt. At year-end 1985, Amgo I had 23 investments with 17 entities. Amgo I is near full investment with $133 million invested out of original capital of $144 million. Distributions, to date, have totalled approximately $25 million from Amgo I. Going forward, First Reserve feels we are reaching the bottom of the energy cycle. Amgo III, a proposed $30 million successor fund to Amgo I and II, is currently offering subscriptions.

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

FIRM NAME: First Reserve Corporation
FUND NAME: Amgo II
CONTACT: John Hill
ACCOUNT INCEPTION: February 1983
SBI COMMITMENT: $7 Million
SBI CURRENT INVESTMENT: $7 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. In most cases, Amgo II co-invests with Amgo I.

AMGO II FUND INVESTMENTS CURRENT TOTAL		CASH RETURNS TO SBI			
#	$ Cost	CALENDAR 1983	CALENDAR 1984	CALENDAR 1985	CUMULATIVE SINCE INCEPTION
11	$25.3 Million	$39,200.0	$165,300.0	$459,300.0	$663,800.0

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

LOCATION	%
Texas	25.5%
Oklahoma	14.0
Louisiana	11.5
Rocky Mtns.	12.0
Gulf Coast	17.0
Other	20.0

INDUSTRY GROUPS	%
Acreage	0.0%
Drilling	0.0
Equity	14.5
Production	17.0
Royalty	14.5
Surface Facilities	0.0
Conv. Note and Preferred	54.0
Other	0.0

STAFF COMMENTS: In the same way as for Amgo I, First Reserve is working with Amgo II portfolio companies. At year-end 1985, Amgo II had 11 investments with 9 entities. Amgo II has approximately $25 million invested out of the original capital of $36 million. Distributions, to date, have totalled approximately $4 million from Amgo II.

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

FIRM NAME: Apache Corporation
FUND NAME: 10% Equipment Financing Notes
CONTACT: Charlie Hann
ACCOUNT INCEPTION: May 1984
SBI COMMITMENT: $22.5 Million
SBI CURRENT INVESTMENT: $0.4 Million

INVESTMENT DESCRIPTION: The Apache Corp. 10% Equipment Financing Notes are a $150 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 CURRENT TOTAL		CASH RETURNS TO SBI		
#	$ COST	CALENDAR 1984	CALENDAR 1985	CUMULATIVE SINCE INCEPTION
4	$2.8 Million	$37,622.90	$103,622.00	$141,244.90

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

LOCATION	%	INDUSTRY GROUPS	%
Texas	100.0%	Acreage	0.0%
Louisiana	0.0	Drilling	0.0
Other	0.0	Production	100.0

STAFF COMMENTS: A total of 46 prospects, comprised of 79 leases, have been acquired as of December 31, 1985. Each lease covers approximately nine square miles or 5,700 acres. Definitive evaluation has been obtained on 15 prospects, nine of which are indicated discoveries and six have been abandoned. Of the nine discoveries, one prospect is producing, three prospects are undergoing development drilling, and the remaining five discoveries are in a pre-development planning stage. Evaluation is continuing or will begin on 31 prospects, of which 15 have undergone one unsuccessful drilling attempt, but will receive additional evaluation prior to further action. Sixteen remaining prospects either have initial drilling started or planned for 1986.

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

FIRM NAME:	Apache Corporation
FUND NAME:	APC 1985 Properties Acquistion Notes
CONTACT:	Charlie Hann
ACCOUNT INCEPTION:	October 1985
SBI COMMITMENT:	$23 Million
SBI CURRENT INVESTMENT:	$22.4 Million

INVESTMENT DESCRIPTION: The APC 1985 Properties Acquisition Notes are a $118 million private placement to finance the acquisition and tangible development costs related to certain producing oil and gas properties, of which some are fully developed and some are partially developed. 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 properties. Principal and interest on the notes are estimated to be repaid by 1996. The 2% additional interest will be paid to noteholders throughout the life of producing properties.

APC 1985 PROPERTY ACQUISTION NOTES INVESTMENTS

CURRENT TOTAL

#	$ COST
143	$118 Million

CASH RETURNS TO SBI

CALENDAR 1985	CUMULATIVE SINCE INCEPTION
$146,039.0	$146,039.0

SUMMARY DESCRIPTION OF CURRENT PORTFOLIO
(% OF RESERVES)

LOCATION	%
Louisiana	26
Oklahoma	13
Texas	18
Wyoming	36
Other	7

STAGE OF DEVELOPMENT	%
Acquired Wells	45
Projected Development	55

STAFF COMMENTS: Proceeds from the APC 1985 Properties Acquisition Notes are being used to fund the acquisition and tangible development costs related to 143 producing oil and gas properties, 104 of which are fully developed and 39 of which are partially developed. Of the prospective well locations projected to be developed, drilling is underway or completed at 43 locations or about 30 percent of the locations expected to be drilled. Results to date indicate that prospects expected to account for about 40 percent of the total reserves from development are likely to exceed the amount projected, prospects expected to account for about 20 percent of the total are likely not to reach their target, and prospects expected to develop the remaining 40 percent of the total are at too early a stage to evaluate.

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

FIRM NAME:	Smith Barney Venture Corp. (SBVC)
FUND NAME:	First Century III (FCIII)
CONTACT:	Mike Myers
ACCOUNT INCEPTION:	12/14/84
SBI COMMITMENT:	$10 Million
SBI CURRENT INVESTMENT:	$2.5 Million

INVESTMENT DESCRIPTION: FCIII is a New York based $100 million venture capital limited partnership formed in December 1984. Term of the Fund is 10 years with optional extensions. Investment focus of FCIII will be on high technology private companies in the early stages of development. FCIII is the third venture fund formed by SBVC since 1972.

FCIII INVESTMENTS CURRENT TOTAL

#	$ Cost
6	$4.6 Million

CASH RETURNS TO SBI

CALENDAR 1985	CUMULATIVE SINCE INCEPTION
$ 0	$ 0

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

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	33.0%	Early Stage Financing	100.0%	Computer Related	56.0%
Midwest	0.0	Expansion Financing	0.0	Communications	0.0
South	27.0	Bridge Financing	0.0	Medical Related	46.0
West	40.0	Leveraged Buyouts	0.0	Other	0.0

STAFF COMMENTS: At year end 1985, Smith Barney had investments in six portfolio companies having an aggregate cost of $4.6 million. Currently, all the investments are valued at cost. Four of the six companies are technology-related and two are in health care. All six are either start-ups or very early stage investments. Smith Barney is represented on the Board of Directors of four of them. Smith Barney's capital deployment rate has been slower than originally expected. The strategy has been to proceed slowly and cautiously with new investments, and to spend more time on value-added monitoring of existing portfolio companies. Jack Dulaney, Chairman of Smith Barney Venture Corp., has taken over direct responsibility for the West Coast office. Jack replaces two other West Coast general partners who recently left Smith Barney. Another senior-level person is being sought for the West Coast office.

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

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 CURRENT TOTAL

#	$ Cost
31	$19.0 Million

CASH RETURNS TO SBI

CALENDAR 1985	CUMULATIVE SINCE INCEPTION
$0.06 Million	$0.06 Million

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

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	3.9%	Early Stage Financing	94.8%	Computer Related	74.2%
Midwest	28.2	Expansion Financing	5.2	Machinery/Equipment	0.0
South	5.2	Bridge Financing	0.0	Industrial/Manufacturing	3.9
West	62.7	Leveraged Buyouts	0.0	Consumer Products/Services	0.0
				Communications	8.9
				Energy Related	4.7
				Medical Related	6.2
				Other	2.1

STAFF COMMENTS: As of December 31, 1985, Norwest Venture Partners has completed 31 investments. The investments totaled $19 million at cost. During fourth quarter 1985, Norwest initiated one investment in an Oregon firm which manufactures athletic shoes and prepared for the closing of three additional investments. Although Norwest continues its early-stage, high-tech investment orientation, none of the new investments are in high-tech industries. One of the companies is a regional airline. The second is a specialty retailer and the remaining one is in the medical industry. The general partners believe that the investments will both add to the portfolio's diversification and yield attractive returns. During calendar year 1985, the general partners disposed of two investments for modest gains and wrote down the value of four others. The remaining companies are valued by the general partners at slightly above cost. Norwest's investment pace during the year was slower than expected. However, the investment activity has improved and the partners expect to complete the fund's final takedown of capital in August 1986. Major organizational changes during the year included the closing of Norwest's Denver office and opening of a Phoenix office.

ALTERNATIVE INVESTMENT ANNUAL REVIEW SUMMARY
December 31, 1985

FIRM NAME: Summit Partners, L.P.
FUND NAME: Summit Ventures, L.P.
CONTACT: Roe Stamps, Steve Woodsum
ACCOUNT INCEPTION: 12/20/84
SBI COMMITMENT: $10 Million
SBI CURRENT INVESTMENT: $5.0 Million

INVESTMENT DESCRIPTION: Summit Ventures is a $93 million venture capital limited partnership. The term of the partnership is ten years plus optional extensions. The partnership was formed in December 1984 by Stamps, Woodsum & Co. of Boston, Mass., the managing general partners of the fund, and Shearson/American Express. Stamps and Woodsum focus on actively generating investment opportunities, targeting portfolio companies that are already profitable yet have not received any venture backing. The fund's investment emphasis will be on high-tech, expansion stage companies. However, the Summit portfolio may include early stage firms and, in addition, will be diversified by industry type and location.

SUMMIT INVESTMENTS CURRENT TOTAL	
#	$ Cost
13	$16.3 Million

CASH RETURNS TO SBI	
CALENDAR 1985	CUMULATIVE SINCE INCEPTION
$ 0	$ 0

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

LOCATION	%	STAGE OF DEVELOPMENT	%	INDUSTRY GROUPS	%
East	18.2%	Early Stage Financing	6.6%	Computer Related	76.2%
Midwest	0.0	Expansion Financing	93.4	Machinery/Equipment	0.0
South	1.0	Bridge Financing	0.0	Industrial/Manufacturing	0.0
West	80.8	Leveraged Buyouts	0.0	Consumer Products/Services	0.0
				Communications	17.3
				Energy Related	0.0
				Medical Related	6.5
				Other	0.0

STAFF COMMENT: At calendar year-end, the Summit portfolio was comprised of twelve companies with an aggregate cost of $16.3 million. With the exception of one company which completed its initial public offering, the portfolio investments are valued by Summit at cost. During fourth quarter 1985, the general partners disposed of one small investment. Options to buy a firm were sold for a significant gain. During the quarter, one new investment was added to the portfolio. The portfolio company is a small, Minnesota-based, later-stage firm in the semi-conductor industry. In addition, Summit is negotiating another investment for closing in first quarter 1986. This company is also located in Minnesota. There were no significant changes in the Summit organization. Summit's staff is preparing for the opening of a California branch office in early 1986. Summit's investment strategy remains unchanged. The general partners continue to search for profitable, expansion-stage firms which have received no venture backing.

Tab F

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

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESCTA
STATE BOARD OF INVESTMENT

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

February 19, 1986

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: South Africa Task Force

SUBJECT: Implementation of the SBI Resolution

When the Board passed its South Africa resolution on October 2, 1985, twenty companies in its actively-managed equity portfolio had not signed the Sullivan Principles. As of January 2, 1986, twelve companies have signed the Sullivan Principles, two companies have demonstrated comparable corporate policies, one company has sold its South Africa operations, and the remaining company was sold from the SBI portfolio. As a result, only four non-Sullivan signatories remain in the portfolio.

At its January, 1986 meetings, the Task Force reviewed the reports of its financial and legal advisors. On a 7-1 vote, the Task Force advised the investment staff that when in the normal course of business the four stocks are sold, they not be repurchased unless the failure to reinvest would be inconsistent with the Board's fiduciary obligations. The staff has notified its external money managers of the Task Force recommendation (letter attached). The staff has requested that in the event a manager finds it necessary to purchase one of the stocks in fulfillment of its fiduciary obligations, a letter certifying the reasons for the purchase be sent to the Board staff.

AN EQUAL OPPORTUNITY EMPLOYER

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

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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

February 18, 1986

Dear Manager:

At its meeting of October 4, 1985, the Minnesota State Board of Investment approved the attached resolution regarding companies that do business in South Africa. As the Board completes the implementation of Phase I, four companies which have not signed the Sullivan Principles remain in the SBI portfolio. These companies are: Diamond Shamrock, Hughes Tool, Newmont Mining, and U.S. Steel.

In keeping with the SBI's resolution, and the financial and legal advice received, you are directed to discontinue purchases of the stock of above listed corporations, unless failure to purchase the stock would be a violation of fiduciary responsibility. In the event that your firm finds it necessary to purchase one of these stocks in fulfillment of its fiduciary obligations, a letter certifying the reasons for the purchase should be sent to the Board's staff. This policy does not require the automatic sale of these securities due solely to the companies' business activities in South Africa. Any sale decisions should be made only for economic or financial reasons in the normal course of business.

If you have any questions, please contact me. Thank you for your cooperation.

Sincerely,

Howard J. Bicker
Executive Director

HB/lmn