1986 ANNUAL REPORT

MINNESOTA STATE BOARD OF INVESTMENT

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Jeff Bailey	Assistant Executive Director
Roger W. Henry	Equity and Fixed Income Manager

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A. Arthur Kaese	Senior Portfolio Manager
C. Robert Parsons	Investment Analyst, Senior
Doug Gorence	Investment Analyst, Intermediate
Harold L. Syverson	Head Security Trader

ALT. EQUITY INVESTMENTS

John Griebenow	Senior Portfolio Manager
Daralyn Peifer	Investment Analyst, Intermediate

FIXED INCOME

Grant A. Feldman	Fixed Income Manager, Short Term
John T. Kinne	Senior Portfolio Manager
N. Robert Barman	Investment Analyst, Senior
Arthur M. Blauzda	Investment Analyst, Senior

ADMINISTRATIVE STAFF

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Beth Lehman	Assistant to the Executive Director
Mable E. Patrick	Senior Accounting Officer
Thomas L. Delmont	Accounting Officer, Intermediate
Nancy Wold	Accounting Officer
Deborah F. Griebenow	Research Analyst, Intermediate
Harriet Balian	Office Services Supervisor II
Kathy Leisz	Computer Operator
Charlene Olson	Clerk Stenographer, Senior
Linda M. Nadeau	Clerk Typist II
Lavern Jagg	Clerk Typist I

EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
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The State Board of Investment is pleased to submit its annual report for 1986.

Fiscal year 1986 was an outstanding year for the Board. Both the stock and bond markets produced impressive results. The stock market moved to record highs during the year. The bond market, which was stimulated by falling interest rates, also provided excellent gains. Driven by this exceptional performance of the capital markets, the Board's investment gains for the year were among the highest in the last decade.

Several items should be highlighted as major accomplishments for the year:

- The Basic Retirement Funds, the largest group of funds managed by the Board, produced a total rate of return of 26.2%. Combined with equally strong results in fiscal year 1985, the Basic Funds have generated a 60.0% cumulative return over the last two fiscal years. These gains were largely the result of the Board's asset allocation policy, which allowed the Basic Funds to take full advantage of the superior returns available in the capital markets during this period. (Refer to pages 5-25).

- The Post Retirement Investment Fund generated earnings that will provide a 9.8% permanent benefit increase for its eligible participants. This increase is more than five times the fiscal year 1986 inflation rate. The Post Fund benefited from high inflation-adjusted yields available in the bond market during 1986. (Refer to pages 27-37).

- The Supplemental Investment Fund was restructured under legislation proposed by the Board and adopted during the 1986 legislative session. New investment options will be added to the Fund to give participants access to a wider range of investment vehicles. (Refer to pages 39-48).

- Benchmark portfolios were created for each of the Board's common stock managers. A benchmark portfolio is a customized index that reflects a manager's particular investment style. These new benchmarks will be used to evaluate more effectively the value added to the investment process by individual managers. Benchmark portfolios are also integral to implementation of a performance-based fee system, outlined below. (Refer to pages 67-68).

o A performance-based fee system was developed and will be implemented in during fiscal year 1987. After the Securities and Exchange Commission removed its prohibition on performance-based fees, the Board was among the first institutional investors to implement this method of compensation for its external active common stock managers. A performance-based fee will provide for a more productive relationship between the Board and its managers. (Refer to pages 69-71).

o The Board continued its investment in real estate, venture capital and resource funds. After making several new commitments during the year, the Board has substantially reached its target allocations in the Basic Funds for venture capital. It is continuing to explore additional investment opportunities in the real estate and resource areas in order to complete its target allocation in these categories. (Refer to pages 72-74).

o A new consultant was selected to advise the Board and its staff on their investment management program. After successfully implementing many fundamental changes in recent years, the Board felt its consultant needs had changed significantly. The Board selected as its consultant Richards & Tierney, a firm which has demonstrated a superior understanding of investment management structures, performance measurement, and investment techniques. The firm's expertise and perspective in these areas will be used to advise the Board on its future decisions. (Refer to pages 71-72).

At the close of fiscal year 1986, the Board's total portfolio reached $11 billion. This amount is actually a composite of several separate pension funds, trust funds and cash accounts, each with differing investment objectives. In establishing a comprehensive management program, the Board develops an investment strategy for each fund, which reflects the fund's unique needs. The primary purpose of this annual report is to clearly communicate the investment goals, policies and performance of the various funds managed by the Board.

Through the investment programs presented in this report, the State Board of Investment will continue to enhance the management of its funds.

Sincerely,

Howard Bicker

Howard J. Bicker
Executive Director

TABLE OF CONTENTS

The Statistical Data Appendix includes information on the Board's common stock, bond, and alternative equity managers.

PART TWO of the Minnesota State Board of Investment's 1986 ANNUAL REPORT contains financial statements and accounting data.

INTRODUCTION

All investments undertaken by the State Board of Investment are governed by the common law prudent person rule and other standards codified in Chapter 11A of the Minnesota Statutes. The prudent person rule requires all members of the Board, Investment Advisory Council, and investment staff to "...act in good faith and exercise that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived therefrom."

In addition to the prudent person rule, the Minnesota Statutes contain a specific list of asset classes available for investment, including common stocks, bonds, short term securities, real estate, venture capital, and resource programs. The statutes prescribe the maximum percentage of fund assets that may be invested in each asset class and contain specific restrictions to ensure the quality of the investments.

Within the requirements established by state law, the State Board of Investment, in conjunction with the Investment Advisory Council and SBI investment staff, sets the asset allocation targets among stocks, bonds, cash, and alternative equity investments for each fund under management. The asset allocation is based on each fund's specific needs and objectives and thus may differ substantially from fund to fund. In addition, the Board determines the most appropriate investment management structure for each fund, structures which may include the use of external money managers and/or the internal investment staff.

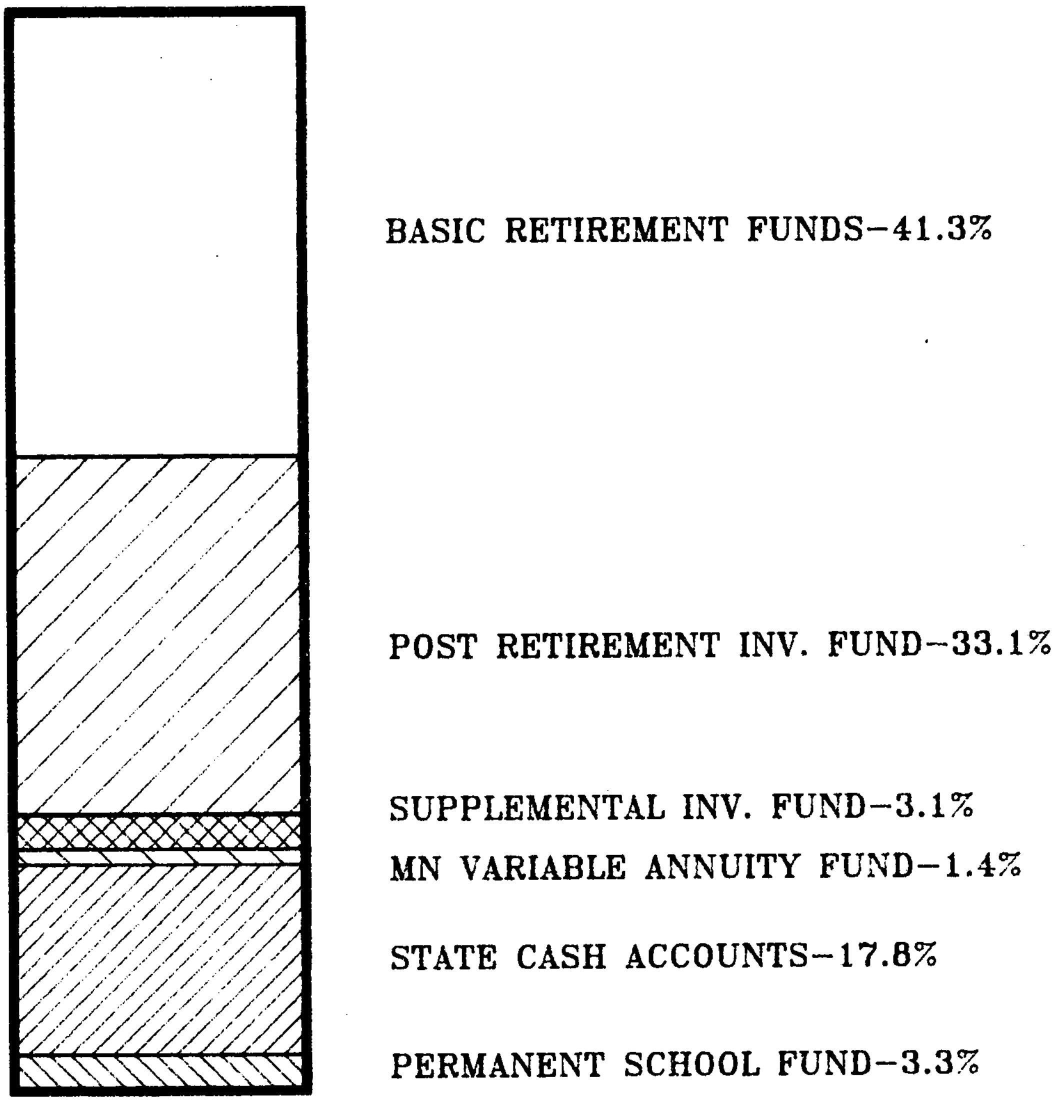
In recent years, the Board, Investment Advisory Council, and SBI staff have conducted comprehensive analyses of the investment needs and objectives of the Basic Retirement Funds, the Post Retirement Investment Fund, the Supplemental Investment Fund, and the Permanent School Fund. These analyses have focused on the selection of appropriate asset mixes and investment management structures to achieve the funds' desired goals. The results of these studies represent the "roadmap" by which the Board manages these funds. The Board intends to update periodically the investment policies established for each fund.

This year the annual report has been divided into two separate publications. The first publication contains the text of the annual report. It describes the investment goals, policies, and performance of those funds managed by the Board. The discussion is broken down on a fund-by-fund basis. It also contains statistical data on the Board's managers. The second publication contains financial statements and accounting data.

MINNESOTA STATE BOARD OF INVESTMENT

FUNDS UNDER MANAGEMENT

FISCAL YEAR 1986



FUNDS MANAGED BY THE STATE BOARD OF INVESTMENT

	Market Value June 30, 1986
BASIC RETIREMENT FUNDS	$4.6 Billion

The Basic Retirement Funds are the pension assets of the currently working participants in six major statewide retirement plans:

Teachers Retirement Fund	$1,847 million
Public Employees Retirement Fund	1,298 million
State Employees Retirement Fund	969 million
Public Employees Police and Fire Fund	372 million
Highway Patrol Retirement Fund	72 million
Judges Retirement Fund	6 million

POST RETIREMENT INVESTMENT FUND — $3.7 billion

The Post Retirement Investment Fund is composed of the reserves for retirement benefits to be paid to currently retired employees by seven plans. Permanent retirement benefit increases are permitted based on excess earnings from dividends, interest, and net realized capital gains.

SUPPLEMENTAL INVESTMENT FUND — $346 million

The Supplemental Investment Fund includes the assets of the state deferred compensation plan, supplemental benefit arrangements, various retirement programs for local police and firefighters, and the unclassified employees of the state. Participants have a choice among four separate accounts with different investment emphases as authorized by law:

Income Share Account -	a balanced portfolio of stocks and bonds
Growth Share Account -	a portfolio of common stocks
Fixed Return Account -	a portfolio of liquid short-term debt investments
Bond Account -	a portfolio of intermediate maturity debt investments

MINNESOTA VARIABLE ANNUITY FUND — $148 million

The Variable Annuity Fund is an investment option concentrating on common stocks which formerly was offered to members of the Teachers' Retirement Association. It is not available to new members.

STATE CASH ACCOUNTS — $2.0 billion

These accounts are composed of short-term investments maturing within three years. They include the Invested Treasurers Cash Fund, transportation funds, and various miscellaneous cash accounts.

PERMANENT SCHOOL FUND — $365 million

The Permanent School Fund is a trust established for the benefit of Minnesota public schools.

BASIC RETIREMENT FUNDS

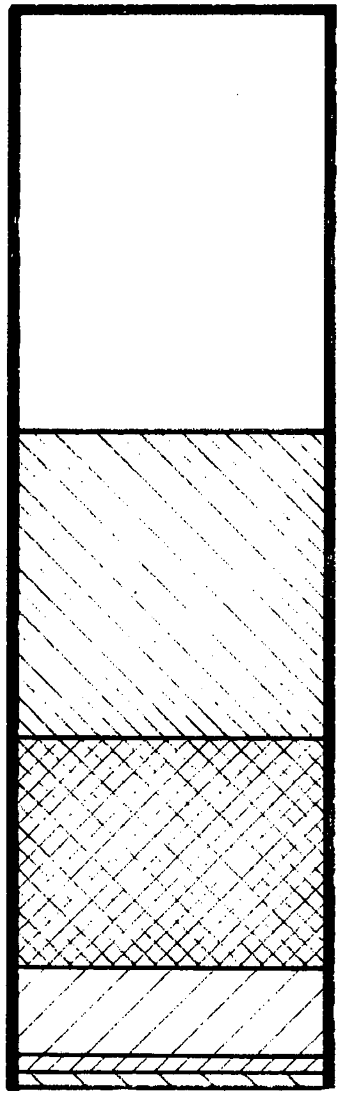
INVESTMENT OBJECTIVES

ASSET ALLOCATION

INVESTMENT MANAGEMENT

INVESTMENT PERFORMANCE

BASIC RETIREMENT FUNDS
COMPOSITION BY FUND
FISCAL YEAR 1986



BASIC RETIREMENT FUNDS

The $4.6 billion Basic Retirement Funds are composed of the retirement assets for currently working participants in six major statewide retirement funds. The graph on the preceding page identifies the individual statewide retirement funds which comprise the Basic Retirement Funds. The Basic Funds serve as accumulation pools in which the pension contributions of public employees and their employers are placed during the employees' years of active service. Approximately 200,000 public employees are participants in the Basic Retirement Funds.

INVESTMENT OBJECTIVES

The Board pursues several investment objectives in the management of the Basic Retirement Funds' assets. In order of importance, those objectives are:

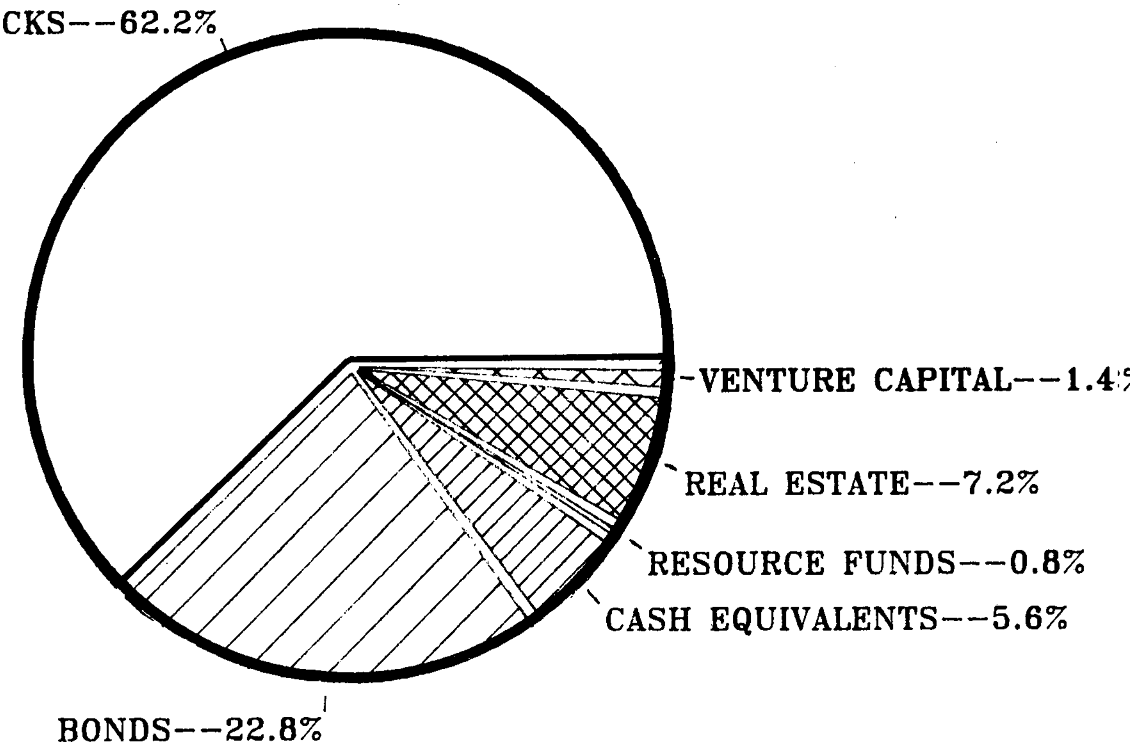
- o To secure the benefits promised public employees covered by the statewide pension plans.
- o To minimize the cost of providing benefits.
- o To avoid excessive volatility in short-run portfolio returns.

The Board's primary responsibility is to ensure that sufficient funds are available to finance promised benefits upon a public employee's retirement. But other investment goals are also important. Based upon the Basic Funds' adequate funding levels and participant demographics, their investment time horizon is long, in excess of twenty years. This time horizon permits the Board to take advantage of the long-run return opportunities offered by the capital markets. An investment program which is willing to accept short-run volatility in returns can significantly reduce the long-run costs of pension funding. The Board is cognizant, however, that excessive short-run return volatility is undesirable. The Board's investment program is, therefore, designed to limit extreme portfolio return results.

BASIC RETIREMENT FUNDS

1986 FISCAL YEAR END ASSET MIX

PERCENT OF MARKET VALUE



	$(MILLION)	PERCENT
COMMON STOCKS	$2,838	62.2%
BONDS	1,041	22.8
CASH EQUIVALENTS*	253	5.6
ALTERNATIVE EQUITY ASSETS:		
REAL ESTATE	330	7.2
VENTURE CAPITAL	65	1.4
RESOURCE FUNDS	37	0.8
TOTAL	$4,564	100.0%

*INCLUDES CASH UNCOMMITTED TO LONG-TERM ASSETS PLUS CASH HELD BY ALL EXTERNAL MANAGERS

ASSET ALLOCATION

The choice of a long-run allocation of assets among common stocks, bonds, cash equivalents, and alternative equity investments can have a dramatic impact on investment results. In fact, asset allocation decisions quite frequently overwhelm the impact of individual security selection within a total portfolio.

Based on the Basic Retirement Funds' investment objectives, the Board has adopted the following long-term asset allocation (i.e., policy allocation) for the Basic Funds:

Common Stocks	60.0%
Fixed Income (bonds and cash equivalents)	25.0%
Real Estate	10.0%
Resource Funds	2.5%
Venture Capital	2.5%

The graph on the preceding page presents the asset allocation of the Basic Retirement Funds at the end of the 1986 fiscal year. Historical data on the Basic Funds' asset mix over the last five years are displayed in the graph on page 10 and the table on page 11.

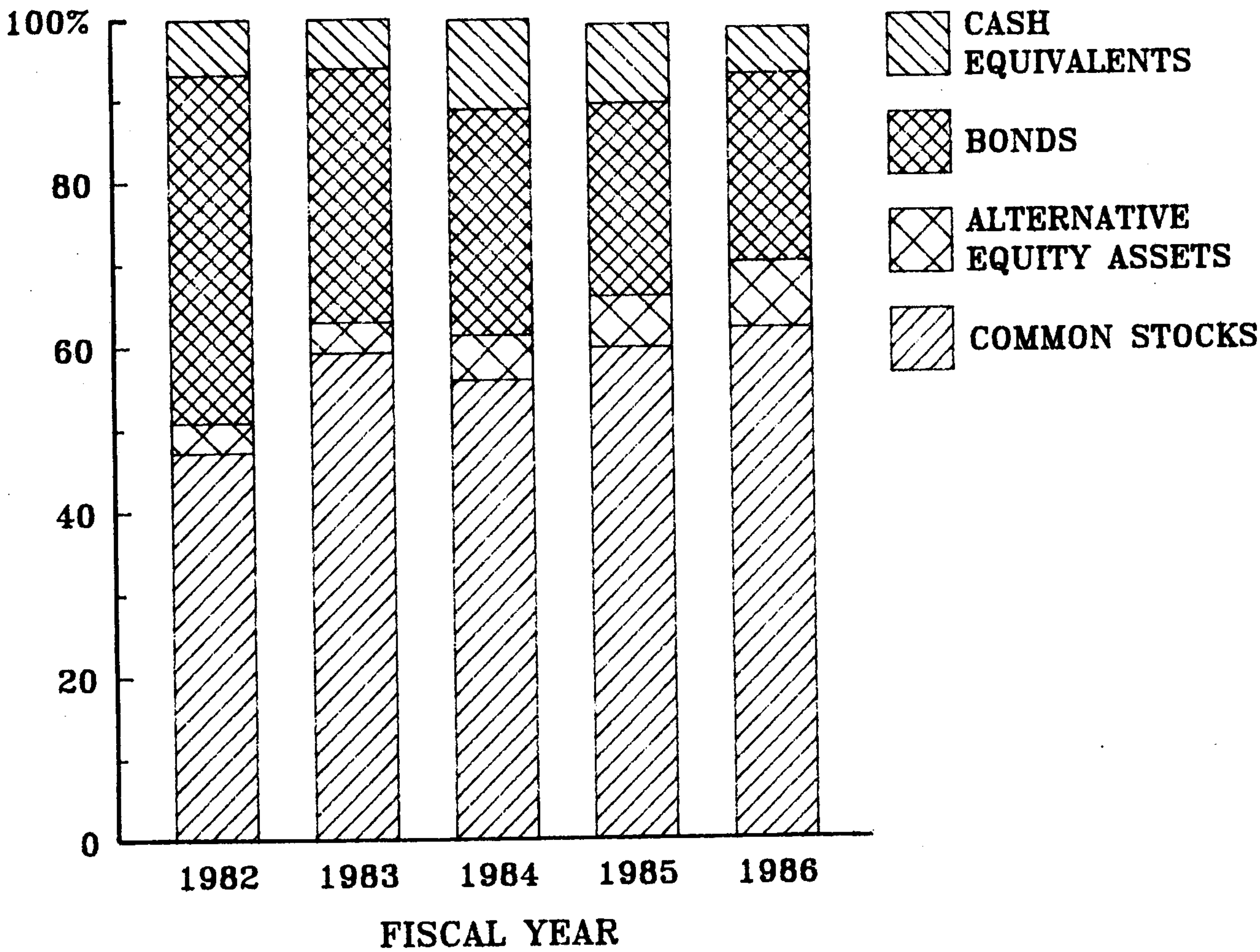
The majority of the Basic Funds' assets are invested in common stocks. This large allocation reflects the long investment time horizon of the Basic Funds and the advantageous long-term risk-return characteristics of common stocks. Further, the Basic Funds' emphasis on maximizing total returns, as opposed to current income, is consistent with the capital gains orientation of common stocks. While this strategy may result in a higher level of total portfolio return volatility than more conservative, higher fixed income allocation strategies, the Board anticipates that additional returns, over the long-run, will more than compensate for the increased volatility.

The fixed income component of the Basic Funds is utilized as a deflation hedge and as a means of dampening short-run portfolio return volatility. In the event of a major deflation, only high quality bonds will protect principal as well as generate sizable capital gains. Fixed income assets serve as a diversifying element in the total portfolio, moderating return volatility. In addition, their inclusion satisfies Minnesota statutes limiting equity investments to 75% of the total fund.

Alternative equity investments, such as real estate and resource funds, provide an inflation hedge that financial assets, such as stocks, and particularly bonds, cannot offer. Hard assets can be expected to appreciate in value at least at a rate equal to inflation. Thus, by holding positions in these investments, the value of the total fund can be protected against catastrophic losses in the event of a sustained high inflation. Moreover, alternative equity investments, including venture

BASIC RETIREMENT FUNDS
HISTORICAL ASSET MIX

PERCENT OF MARKET VALUE
FISCAL YEAR END ALLOCATIONS



BASIC RETIREMENT FUNDS
HISTORICAL ASSET MIX

PERCENT OF MARKET VALUE
FISCAL YEAR END ALLOCATIONS

	FISCAL YEAR				
	1982	1983	1984	1985	1986
COMMON STOCKS					
$MILLION	1,037.0	1,872.0	1,696.0	2,209.0	2,838.0
PERCENT	47.5	59.5	56.1	59.9	62.2
BONDS					
$MILLION	922.0	970.0	829.0	865.0	1,041.0
PERCENT	42.2	30.8	27.4	23.4	22.8
CASH EQUIVALENTS*					
$MILLION	146.0	188.0	331.0	355.0	253.0
PERCENT	6.7	6.0	10.9	9.6	5.6
REAL ESTATE					
$MILLION	62.0	96.0	140.0	203.0	330.0
PERCENT	2.8	3.1	4.6	5.5	7.2
RESOURCE FUNDS					
$MILLION	18.0	19.0	23.0	25.0	37.0
PERCENT	0.8	0.6	0.8	0.7	0.8
VENTURE CAPITAL					
$MILLION	0.0	0.0	4.0	34.0	65.0
PERCENT	0.0	0.0	0.2	0.9	1.4
TOTAL FUND					
$MILLION	2,185.0	3,145.0	3,023.0	3,691.0	4,564.0
PERCENT	100.0	100.0	100.0	100.0	100.0

*INCLUDES CASH UNCOMMITTED TO LONG-TERM ASSETS
PLUS CASH HELD BY ALL EXTERNAL MANAGERS

capital, offer historically attractive returns. They also add diversification to the total portfolio, helping to prevent excessively volatile short-run returns.

INVESTMENT MANAGEMENT

The assets of the Basic Retirement Funds are managed entirely by external advisers, with the temporary exception of one active equity account. For many years, internal staff managed all of the Basic Funds' assets. However, based on its analysis of the investment needs and objectives of the Basic Retirement Funds, the Board adopted a complete external management structure for the Basic Funds. As a result, fiscal years 1983 and 1984 were periods of major transition for the Basic Funds, as the shift from internal to external management was implemented.

The Basic Retirement Funds' investment management structure was largely unchanged in fiscal year 1986. New commitments to real estate and venture capital continued at a measured pace as the Board moved toward its funding targets in those asset classes.

COMMON STOCKS

The SBI utilizes a two-part approach to the management of the Basic Retirement Funds' common stock portfolio, combining a $2.0 billion core diversified passive portfolio (i.e., an index fund) with approximately $900 million in non-diversified actively managed portfolios.

An index fund is a well-diversified portfolio of common stocks designed to match the rate of return performance of a predetermined stock market index. The index fund utilized by the SBI tracks the Wilshire 5000, a broad-based equity market indicator composed of the common stocks of all U.S.-domiciled corporations for which daily prices are available. In effect, the Wilshire 5000 represents virtually the entire domestic common stock market.

The SBI's decision to utilize an index fund is based on the inherent difficulty of actively managing a multi-billion dollar common stock portfolio. The Board has chosen to accept market returns on a substantial portion of its common stock portfolio through the utilization of an index fund. The SBI seeks above-market returns through the active management of the remaining common stock assets.

The actively managed segment of the Basic Retirement Funds' common stock portfolio is designed to complement the core index fund. With the index fund providing adequate diversification for the Funds' total portfolio, the active managers are expected to add incremental value, over the long-run, through aggressive investment management decisions. A comprehensive monitoring system has been established to ensure that the active managers maintain non-diversified investment positions, consistent with their own particular investment approaches.

A summary of the investment styles and portfolio characteristics of each of the common stock managers is included in the Statistical Data Appendix.

BONDS

The Basic Retirement Funds' $1.1 billion bond portfolio is managed by six external bond managers. The managers' funding in early fiscal year 1985 was the final step in the Basic Funds' move to total external management. The group of six managers was selected for its blend of investment styles. Each of the managers invests in high-quality fixed income securities and emphasizes active investment decisions. The managers vary, however, in the emphasis they place on interest rate anticipation and in the manner in which they approach their issue selection and sector weighting decisions.

In keeping with the objective of utilizing the bond portfolio as as deflation hedge, the managers are restricted regarding the minimum average life of their portfolios. This requirement is designed to prevent the Basic Retirement Funds' total bond portfolio from assuming an excessively short-lived position and thus, severely diluting its deflation hedge capacity. Further, the bond managers are permitted to hold only high quality (BAA or better) fixed income assets. In addition, to avoid extreme variability in total bond portfolio returns, the maximum average life of the managers' portfolios is also constrained.

A summary of each bond manager's investment approach and portfolio characteristics is presented in the Statistical Data Appendix.

CASH EQUIVALENTS

The long-term asset mix of the Basic Retirement Funds does not include an allocation to cash equivalents. Given the long-run objectives of the Funds, a permanent commitment to short-term investments is not appropriate. On the other hand, at any given time it is quite likely that cash reserves will compose three percent or more of the Basic Funds' market value. Cash equivalent holdings are derived from two sources: first, new contributions provided by the retirement funds which have yet to be allocated to a specific long-term asset segment; and second, the external investment managers, who are permitted to hold cash as part of their own individual short-run asset mix strategies.

Cash reserves are invested in a short-term investment fund (STIF) managed by State Street Bank and Trust, the Basic Retirement Funds' master custodian. The STIF is a separate account invested under the same state statutes which guide SBI investment staff's short-term investments.

REAL ESTATE

The SBI has targeted 10% of the Basic Retirement Funds for investment in real estate. Under state law, the SBI is authorized to invest in real estate through commingled funds, limited partnerships, and trusts. In each of the Board's real estate investments there must be at least four other participants. In addition, the Board's investment may not exceed 20% of a total fund. The SBI does not invest in real estate through direct investments, separate accounts, or individual transactions.

The SBI has adopted a three-part program to implement the policy allocation: 30-40% of the real estate portfolio is invested in open-end diversified commingled funds; 30-40% is invested in closed-end diversified commingled funds; and, 20-30% is placed in less diversified, more focused commingled funds.

The objective of the first two parts of the SBI's real estate program is to create a large core portfolio that is broadly diversified by property type, location, and financing structure. The core portfolio is designed to reflect the composition of the aggregate U.S. real estate market and, as such, is expected to earn market returns. The broad diversification of the core portfolio enables the Board to implement the third part of real estate program, the selection of less diversified, special orientation managers. With their more focused approach to real estate management, these funds offer the ability to enhance the return earned by the core portfolio.

The review of prospective real estate managers is conducted by SBI investment staff and the IAC's Alternative Investment Committee. In their evaluations, the staff and the Committee focus on the managers' experience, performance history, and investment strategy.

The Board continued to make progress toward its policy allocation to real estate during fiscal year 1986. New commitments were made to two closed-end commingled funds in both the diversified and specialty segments of the portfolio. The Board will continue to review and add new real estate investments to the portfolio as needed to fulfill the target 10% allocation. Future commitments likely will be in the form of follow-on funds with existing managers.

A description of the Board's real estate managers is included in the Statistical Data Appendix.

VENTURE CAPITAL

The SBI has allocated 2.5% of the Basic Retirement Funds to investment in venture capital. Under state law, the Board is authorized to invest in venture capital through limited partnerships and corporations. As with real estate investments, each venture capital investment must have at least four other investors. Further, the Board's maximum investment size is 20% of a particular fund.

Like the real estate portfolio, the Board's venture capital portfolio is broadly diversified. It consists primarily of participations in venture capital partnerships and is diversified across three dimensions: location, industry type, and stage of corporate development of individual portfolio companies.

The search for venture capital managers is conducted by SBI investment staff and the IAC's Alternative Investment Committee. Venture Economics, the SBI's venture capital advisor, assists in the selection process. The SBI staff and the Committee's venture recommendations are based primarily on the managers' experience, performance history, investment strategy, and diversification potential.

The Board's policy allocation to venture capital essentially was attained in fiscal year 1986. Two new commitments to venture capital limited partnerships were made. The Board will make additional commitments in future years as the growth of the Basic Retirement Funds warrants the expansion of the venture capital portfolio and as the existing commitments begin to generate cash distributions.

A description of the Board's venture capital managers is included in the Statistical Data Appendix.

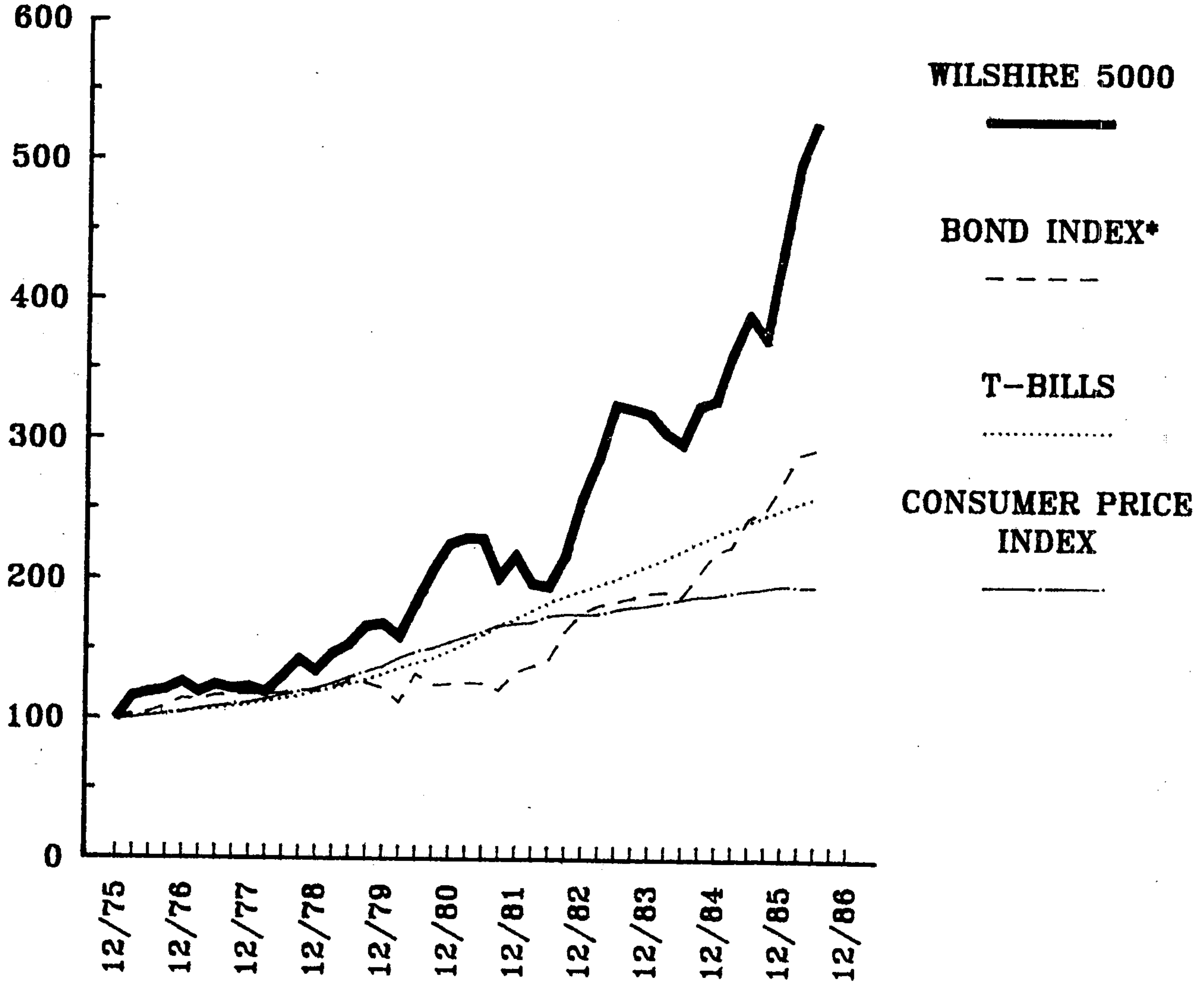
RESOURCE FUNDS

The SBI has allocated 2.5% of the Basic Retirement Funds' assets for investment in oil and gas partnerships. The Board invests in partnerships structured specifically for tax-exempt investors. Again, there must be four other participants in each of the Board's resource investments and the Board may invest no more than 20% of a fund's total capital. The resource partnerships in which the Board invests concentrate their investments in producing properties and royalty interests that are diversified geographically and/or geologically.

Resource investments are reviewed by SBI investment staff and the IAC's Alternative Investment Committee. Resource reviews are similar to those conducted for potential real estate and venture investments. SBI staff and the Committee focus on the resource managers' experience, performance history, and investment strategy.

PERFORMANCE OF CAPITAL MARKETS

CUMULATIVE RETURNS



*M.L. MASTER INDEX THROUGH 12/79
SALOMON BROAD INDEX 1/80–6/86

During the 1986 fiscal year, SBI investment staff and the IAC's Alternative Investment Committee evaluated several possible new investments for the Basic Retirement Fund's resource portfolio. Only one of these investments was recommended to the Board. The sharp decline in energy prices and the financial shake-out in the energy sector have created the potential for profitable investment opportunities. However, SBI investment staff and the Committee have found it difficult to locate investments whose terms and assumptions properly reflect the decline in energy prices. Staff and the Committee plan to continue to review quality resource investments for possible inclusion in the Funds' portfolio.

A description of the Board's resource fund managers is included in the Statistical Data Appendix.

INVESTMENT PERFORMANCE

RISK-RETURN OBJECTIVES

The Board has adopted performance objectives which are consistent with the needs of the Basic Retirement Funds and realistic in the sense that they are both attainable and measurable. The evaluation of performance outcomes relative to objectives is an integral part of the SBI's investment management system.

Given the long-term investment time horizon of the Basic Retirement Funds, the performance evaluation time period is necessarily long-term as well. Recognizing that excessive attention to performance in the short-run can have a negative impact on investment results, the Board evaluates investment performance over a time horizon of approximately three to five years (roughly corresponding to a typical market cycle). While performance is measured and reviewed quarterly to identify trends and control extreme underperformance, decisions regarding the effectiveness of a particular investment management structure are made over a considerably longer period.

The Basic Retirement Funds' multi-manager structure requires that investment performance be evaluated on two distinct levels: the total fund level and the individual manager level. The use of total fund risk-return targets ensures that long-run strategic decisions which affect the total performance of the Funds are developed and implemented in a manner consistent with the Funds' needs. Risk-return objectives for the individual asset managers are designed to ensure that the managers adhere to their assigned investment roles. In addition, the objectives permit evaluation of the value that the managers add to the investment process.

TOTAL FUND RISK-RETURN OBJECTIVES

To a significant degree, the risk level of the total fund is set implicitly when the long-term asset mix (policy portfolio) and investment management structure are determined. Given the adequate funding levels and long-term investment time horizons of the Basic Retirement Funds, the Board has targeted an above average risk posture for the Basic Funds. The Board's objective is to take advantage of the established relationship between risk and return. Higher risk investment strategies have been shown to offer higher long-run returns than lower risk strategies. The Board's risk target is implemented through the long-term commitment of a sizable proportion the Basic Funds' assets to equities and the adoption of an investment management structure which has an aggressive orientation.

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

- o First, based on the Funds' long-term asset mix targets and the historical real returns offered by the various asset classes, the total portfolio is expected to achieve an annualized real rate of return of 5%.

- o Second, the returns produced by the total portfolio are expected to exceed those derived from a composite of asset class market indices, weighted in the same proportion as the Basic Funds' policy asset allocation. Because comprehensive data is available for only the stock, bond and cash equivalents markets, the composite index is weighted 65% stocks, 30% bonds, 5% cash equivalents.

- o Third, the Basic Funds' portfolio is expected to outperform the median return produced by a representative sample of other public and private tax-exempt balanced funds.

- o Fourth, the return on the Funds' total portfolio should exceed that of its actuarial assumed annual return of 8%.

INDIVIDUAL MANAGER RISK-RETURN OBJECTIVES

Two primary long-run risk objectives have been established for the Basic Retirement Funds' common stock managers. The first objective is based on each manager's individual investment approach. Each manager (active or passive) is expected to hold a portfolio that is consistent, in terms of risk characteristics, with the managers' stated investment approach. The second objective relates to the managers' levels of diversification. The active common stock managers are expected to hold highly non-diversified portfolios, while the index fund manager is expected to hold a well-diversified portfolio. In the short-run, the active common stock managers may depart from these two risk targets as part of their specific investment strategies.

The common stock managers' returns are evaluated against the performance of a customized index constructed to represent the managers' specific investment approaches. The Board expects the equity managers to add value to their individual investment styles. The benchmarks take into account the equity market forces that at times favorably or unfavorably impact certain investment approaches. Thus, the benchmarks are appropriate bogeys against which to judge the managers' performances.

The risk of the bond managers' portfolios is constrained in such a way as to ensure that they fulfill their deflation hedge and total fund diversification roles. The bond managers are restricted in terms of the average life (i.e., the durations) of their portfolios and the quality of their fixed income investments.

However, the bond managers' investment styles are more broad-based than those of the equity managers. Thus, the benchmark used to evaluate the bond managers is the Salomon Brothers Broad Bond Index, which represents the performance of the entire bond market.

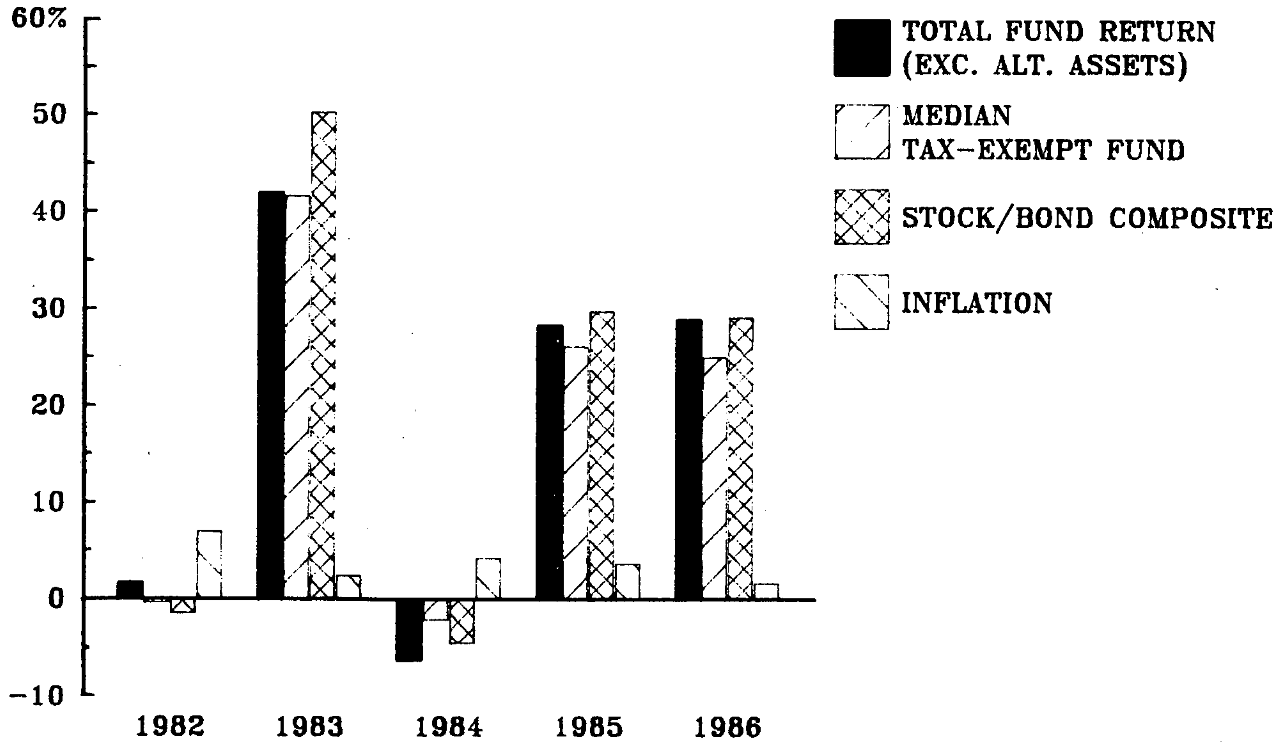
At this time, specific performance objectives have not been established for the alternative investment managers. The long-term nature of their investments and the lack of comprehensive data on the returns provided by the real estate, resource, and venture capital markets precludes effective performance evaluation. In the future, as markets for these assets become more institutionalized, the Board will more fully integrate these assets into its performance analysis.

TOTAL FUND RISK-RETURN PERFORMANCE RESULTS

Progress toward fulfillment of the Board's long-term asset mix targets continued during fiscal year 1986. The common stock and bond targets have been achieved for the past two years. Primary activity has centered around the Basic Retirement Funds' alternative investment programs. New commitments were made to real estate, venture capital, and resource investments during the year. With alternative investments near their policy asset allocation, only moderate additional activity is expected over the next several years.

Like the preceding year, fiscal year 1986 was an excellent period of performance for the Basic Retirement Funds. Both the stock and bond markets produced outstanding results. The stock market, as represented by the Wilshire 5000, moved to record highs, generating a 35.3% total return for the year. The bond market, which was stimulated by sharply declining interest rates, likewise produced impressive results. For the year, the bond market, as represented by the Salomon Broad Bond Index, produced a 19.9% total return.

BASIC RETIREMENT FUNDS
INVESTMENT RETURNS



	FISCAL YEAR					(Annualized)	
TOTAL FUND	1982	1983	1984	1985	1986	3 YR.	5 YR.
(incl.)*	2.0%	40.5%	−5.5%	26.8%	26.2%	14.9%	16.8%
(excl.)	1.8	42.1	−6.3	28.4	29.0	15.8	17.5
MEDIAN FUND**	−0.1	41.3	−2.1	26.3	25.1	16.4	17.6
COMPOSITE***	−1.6	50.3	−4.7	29.8	29.2	16.9	18.8
INFLATION	7.1	2.6	4.2	3.7	1.7	3.2	3.9

* Includes Alternative Equity Assets: Real Estate, Venture Capital and Resource Funds

** Wilshire Assoc. Trust Universe Comparison Service median tax−exempt balanced portfolio

*** 50/45/5 Wilshire 5000/Salomon Broad Bond Index/91 Day T−Bills Composite through 12−31−82, 65/30/5 Composite thereafter

Driven by these exceptional capital markets performances, the Basic Retirement Funds' total portfolio generated a 26.2% total rate of return for fiscal year 1986. (Excluding alternative investments, the portfolio produced a 29.0% return.) Combined with the equally strong 1985 results, the Basic Funds have generated a 60.0% cumulative return over the last two fiscal years. (Excluding alternative investments, the Basic Funds produced a two-year return of 65.6%).

Relative to established total fund performance objectives, the Basic Retirement Funds performed well. The Basic Funds' portfolio return substantially surpassed the return on the median tax-exempt fund, and exceeded the real rate of return and actuarial return targets. The Basic Funds roughly matched the return on the stock/bond/cash target. Performance relative to total fund targets is presented on pages 20 and 22.

INDIVIDUAL MANAGER RISK-RETURN PERFORMANCE RESULTS

With few exceptions, the external common stock managers successfully fulfilled their long-term risk objectives assigned to them by the Board. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of diversification.

From a total return perspective, the active equity managers' results were mixed. The majority of the managers outperformed their benchmark portfolios. However, several underperformed their benchmarks. The aggregate result for all of the common stock managers was performance below that of the stock market.

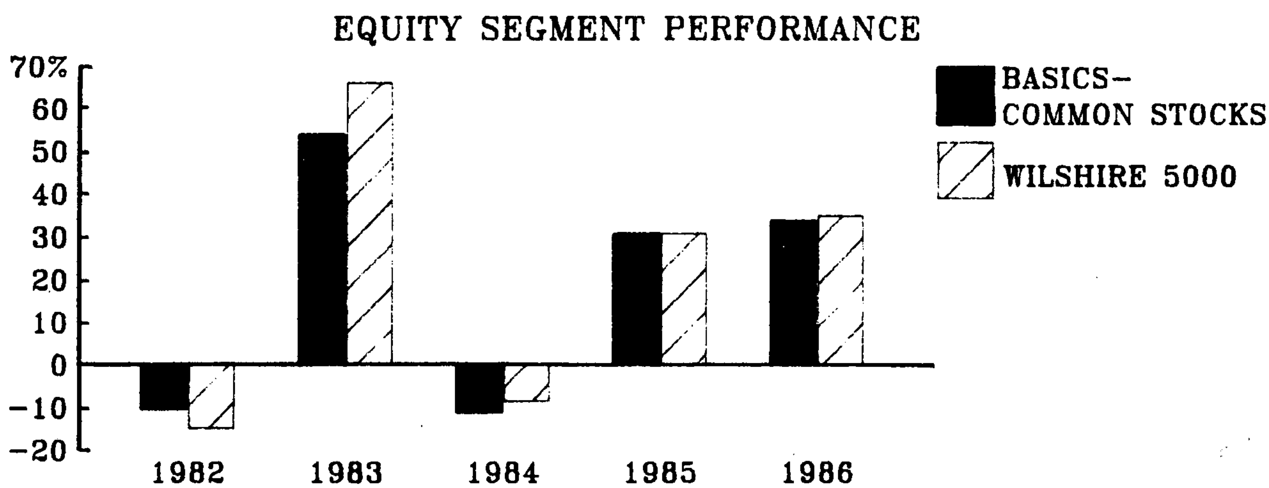
Fiscal year 1986 was a period in which managers who pursue a "Growth" style of investing generally far outperformed managers who follow a more defensive, "Value" style. These results were in sharp contrast to fiscal year 1985, when the opposite situation occurred. These divergences in investment style performances were very evident among the Board's common stock managers.

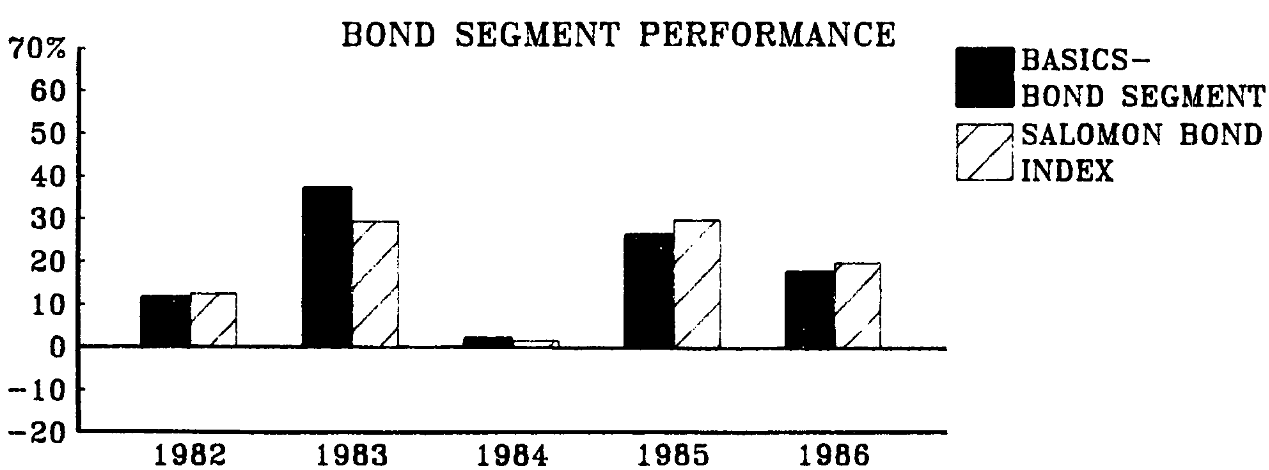
The index fund deviated modestly from its target, the Wilshire 5000, during the fiscal year. The tracking error was higher than expected due to unusually large cash positions temporarily held in the index fund's portfolio. These cash positions were caused by stock sales required to fund withdrawals from the Basic Retirement Funds due to the "Rule of 85."

During fiscal year 1986, the bond managers fulfilled their assigned long-term risk targets. Portfolio quality and maturities were maintained in the specified ranges.

Rate of return results for the bond managers were generally unfavorable during the fiscal year. Most of the bond managers failed to outperform their assigned benchmark. This result was due, in large part, to less than market portfolio durations and

BASIC RETIREMENT FUNDS
PORTFOLIO SEGMENT PERFORMANCE





FISCAL YEAR

	1982	1983	1984	1985	1986	(Annualized) 3 YR.	5 YR.
EQUITY SEGMENT	-10.4%	54.1%	-11.1%	30.9%	33.8%	15.9%	16.6%
WILSHIRE 5000	-15.0	66.5	-8.7	31.2	35.3	17.4	18.1
BOND SEGMENT	11.9	37.4	2.2	26.4	17.6	15.0	18.5
SALOMON INDEX*	12.9	29.7	1.8	29.9	19.9	16.6	18.3

*SALOMON BROTHERS BROAD BOND INDEX

large mortgage positions held by the majority of the managers in a declining interest rate environment.

Performance data for the individual equity and bond managers are presented on pages 24-25.

BASIC RETIREMENT FUNDS
EQUITY MANAGER PERFORMANCE
FISCAL YEAR 1986

MANAGER	TOTAL PORTFOLIO RETURN
FRED ALGER	47.2%
ALLIANCE CAPITAL	43.9
BEUTEL GOODMAN	16.3
BMI CAPITAL	36.7
FORSTMANN LEFF	44.1
HELLMAN JORDAN	29.5
IDS ADVISORY	41.9
INVESTMENT ADVISERS	29.3
LIEBER & COMPANY	42.1
PEREGRINE CAPITAL	20.1
WADDELL & REED	28.5
INTERNAL MANAGER	18.6
TOTAL–EXT. ACTIVE STOCK MANAGERS	32.4
WILSHIRE ASSOCIATES (INDEX FUND)	34.4
TOTAL–ALL COMMON STOCK MANAGERS	33.8
PERFORMANCE STANDARDS	
WILSHIRE 5000	35.3
S&P 500	35.9
TUCS MEDIAN EQUITY PORTFOLIO	32.0
INFLATION	1.7

BASIC RETIREMENT FUNDS
FIXED INCOME MANAGER PERFORMANCE

FISCAL YEAR 1986

MANAGER	TOTAL PORTFOLIO RETURN
INVESTMENT ADVISERS	16.2%
LEHMAN MANAGEMENT	17.1
MILLER, ANDERSON & SHERRERD	18.5
MORGAN STANLEY	17.9
PEREGRINE CAPITAL	13.1
WESTERN ASSET	20.6
TOTAL EXT. ACTIVE BOND MANAGERS	17.9

PERFORMANCE STANDARDS

SALOMON BROAD BOND INDEX	19.9
TUCS MEDIAN BOND MANAGER	18.4

POST RETIREMENT INVESTMENT FUND

INVESTMENT OBJECTIVES

ASSET ALLOCATION

INVESTMENT MANAGEMENT

INVESTMENT PERFORMANCE

POST RETIREMENT INVESTMENT FUND

The Post Retirement Investment Fund contains the pension assets of retired public employees covered by seven statewide retirement plans (i.e., the Basic Retirement Funds and the Legislative & Survivors Retirement Fund). The assets of the Fund are used to finance monthly annuities paid to retirees. These annuities may be adjusted upwards based on the earnings of the Fund. At the end of the 1986 fiscal year, the Post Retirement Investment Fund had a market value of $3.6 billion. As of that date, almost 45,000 retirees were participants in the Fund.

INVESTMENT OBJECTIVES

Public employees participating in the statewide retirement plans are promised benefits based on their total years of service and their "high five" average salaries. Upon the employees' retirement, sums of money sufficient to finance fixed monthly annuities are transferred from the accumulation pools to the Post Retirement Investment Fund. In order to support promised benefits, the Fund must "earn" at least 5% on its invested assets each year. If the Fund exceeds this earnings rate, excess earnings are used to finance permanent benefit increases for eligible retirees.

The SBI pursues two primary investment goals for the Post Retirement Investment Fund:

- o To produce annual earnings sufficient to maintain promised benefits at current levels.

- o To generate additional earnings which allow benefits to be increased at a rate which compensates, to some degree, for inflation.

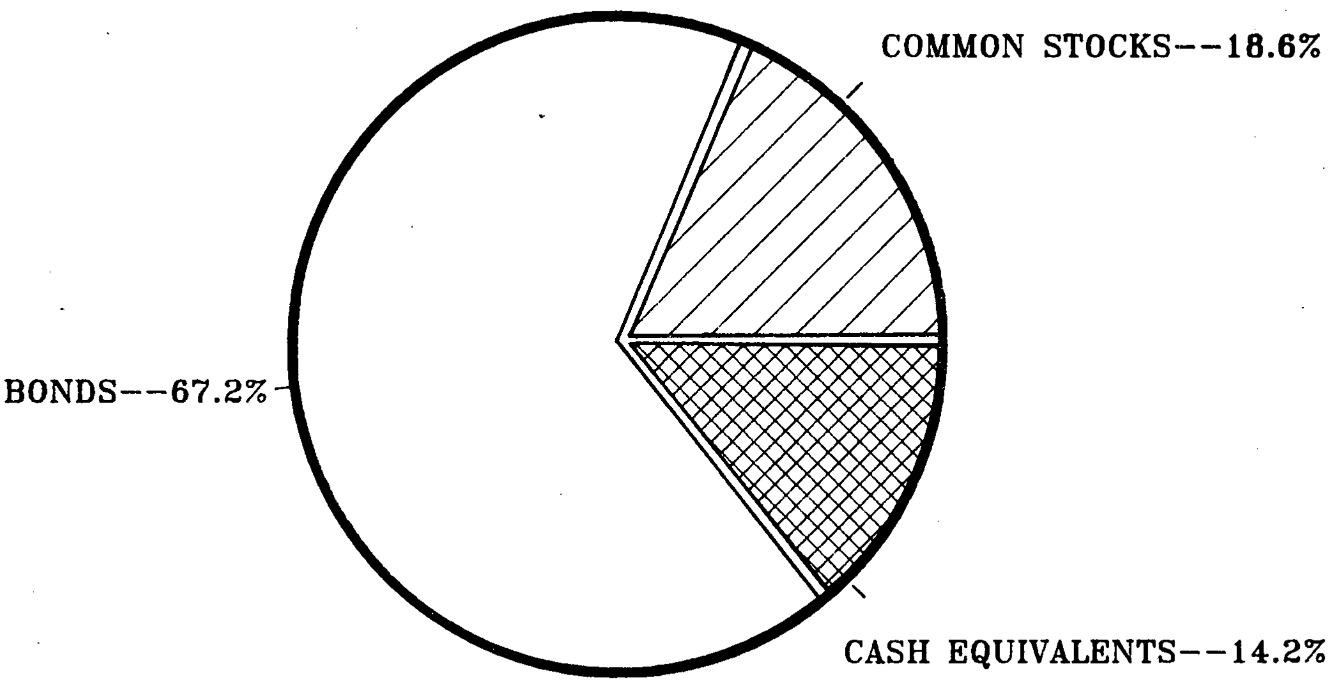
In order to achieve these two objectives, the Board recognizes that the Post Retirement Investment Fund requires a completely different investment approach than that applied to the Basic Retirement Funds.

The ability of the Post Retirement Investment Fund to maintain current benefit levels and provide future benefit increases is dependent upon its earnings. As specified by statute, earnings for the Fund are defined as interest and dividend income as well as realized equity and fixed income capital gains (or losses). Unrealized capital gains have no

POST RETIREMENT INVESTMENT FUND

1986 FISCAL YEAR END ASSET MIX

PERCENT OF MARKET VALUE



	$MILLION	PERCENT
COMMON STOCKS	$ 681	18.6%
BONDS	2,457	67.2
CASH EQUIVALENTS	520	14.2
TOTAL	$3,658	100.0%

direct impact on the benefits paid out to retirees. Unrealized capital gains (or losses) are excluded from defined earnings in order to make benefit payments largely insensitive to near-term fluctuations in the capital markets. As a result, the Fund is not oriented toward long-term total rate of return maximization. Rather, the Board attempts to generate a high, consistent stream of earnings for the Fund that will maintain current benefits, as well as produce benefit increases over time.

ASSET ALLOCATION

The asset mix of the Post Retirement Investment Fund is designed to generate the sizable, stable earnings stream referred to in the previous section. The Fund's year-end asset mix, as well as its historical asset allocation data, are presented on pages 30 and 32.

The majority of the Fund's assets are invested in a dedicated bond portfolio. A dedicated bond portfolio is a collection of various maturity, high quality bonds which generate cash flows from income and principal payments that match a specific stream of liabilities. The highly predictable benefits owed to the Fund's retired participants, and the high real interest rates that have existed in recent years, have created an ideal situation to employ a dedicated bond portfolio.

The Post Retirement Investment Fund's dedicated bond portfolio facilitates the attainment of the Fund's two objectives. Most importantly, it ensures that funds are available at the required times to meet promised benefit payments. The dedicated bond portfolio also earns enough additional interest income to consistently permit a minimum annual benefit increase of 3%, provided the portfolio yields at least 8% on a annual basis. If the Fund's other investments do well, as has been the case recent years, the Fund can offer eligible retirees even more than this floor benefit increase.

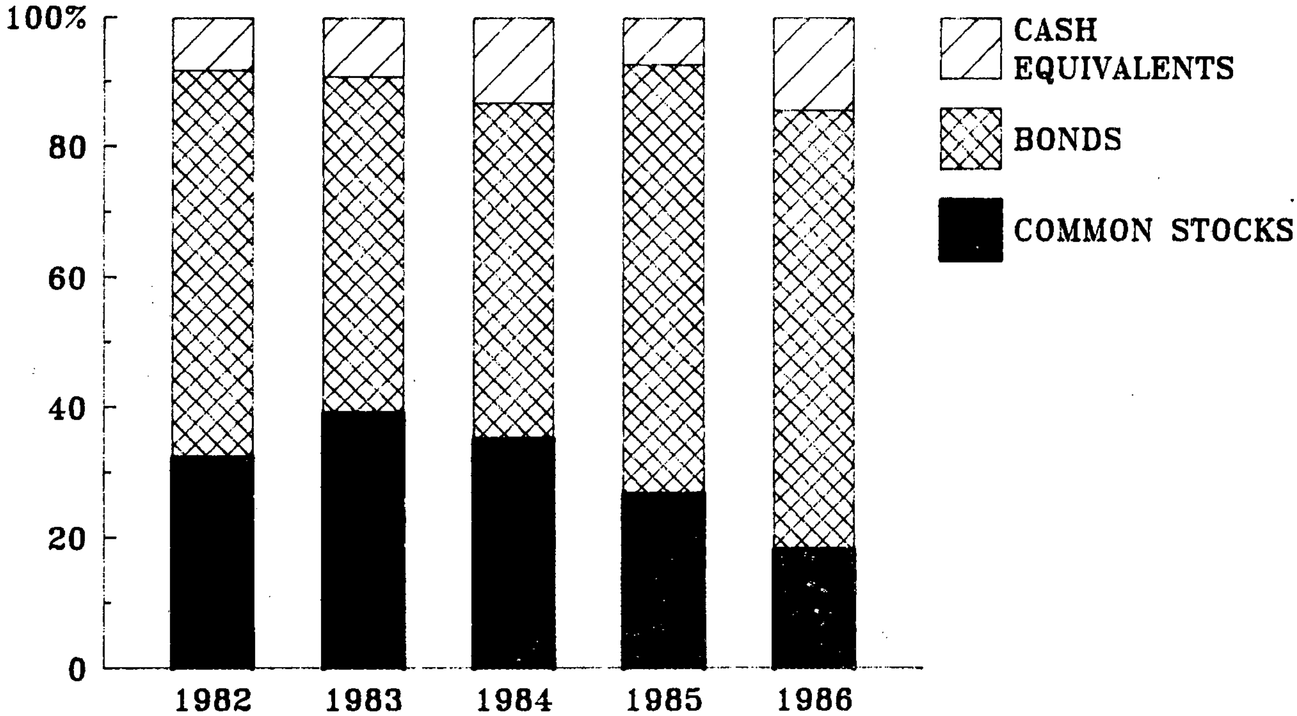
While bonds represent the largest asset class in the Post Retirement Investment Fund's total portfolio, common stocks also play an important role. Common stocks provide the Fund with a source of long-run earnings growth not available from fixed income investments. In recent years, realized gains on common stocks have contributed importantly to the large benefit increases.

Cash equivalents make up the remainder of the Fund's portfolio. These assets provide the Fund with a certain amount of inflation protection, as their yields are highly inflation sensitive. Further, cash equivalents give the Fund the liquidity necessary to meet withdrawals required for benefit payments.

POST RETIREMENT INVESTMENT FUND

HISTORICAL ASSET MIX

PERCENT OF MARKET VALUE
FISCAL YEAR END ALLOCATIONS



	FISCAL YEAR				
	1982	1983	1984	1985	1986
COMMON STOCKS					
$MILLION	382.0	693.0	657.0	733.0	681.0
PERCENT	32.7	39.5	35.5	27.1	18.6
BONDS					
$MILLION	692.0	903.0	951.0	1,780.0	2,457.0
PERCENT	59.3	51.5	51.4	65.7	67.2
CASH EQUIVALENTS					
$MILLION	93.0	157.0	243.0	196.0	520.0
PERCENT	8.0	9.0	13.1	7.2	14.2
TOTAL FUND					
$MILLION	1,167.0	1,753.0	1,851.0	2,709.0	3,658.0
PERCENT	100.0	100.0	100.0	100.0	100.0

The asset mix of the Post Retirement Investment Fund was altered modestly during fiscal year 1986. The sharp decline in interest rates necessitated an increase in the size of the dedicated bond portfolio and a concomitant reduction in the size of the common stock portfolio. With lower interest rates, new cash flows into the Fund must now be invested at lower yields than in the recent past. If interest rates remain at current relatively low levels, the size of the common stock portfolio will continue to shrink slowly as the dedicated bond portfolio grows larger.

INVESTMENT MANAGEMENT

The Post Retirement Investment Fund is managed solely by the SBI's investment staff. This management structure is employed for three reasons. First, the low turnover, limited discretion nature of the dedicated bond portfolio makes bond management by SBI staff cost effective. Second, with respect to common stock management, the Fund's equity managers must be concerned with generating current income and avoiding realized losses. Most external investment managers are not used to functioning under the Fund's unique investment requirements. SBI staff, on the other hand, has managed the Fund's portfolio since its inception. Third, the SBI investment staff is more aware of the risk-return preferences of the retirees.

BONDS

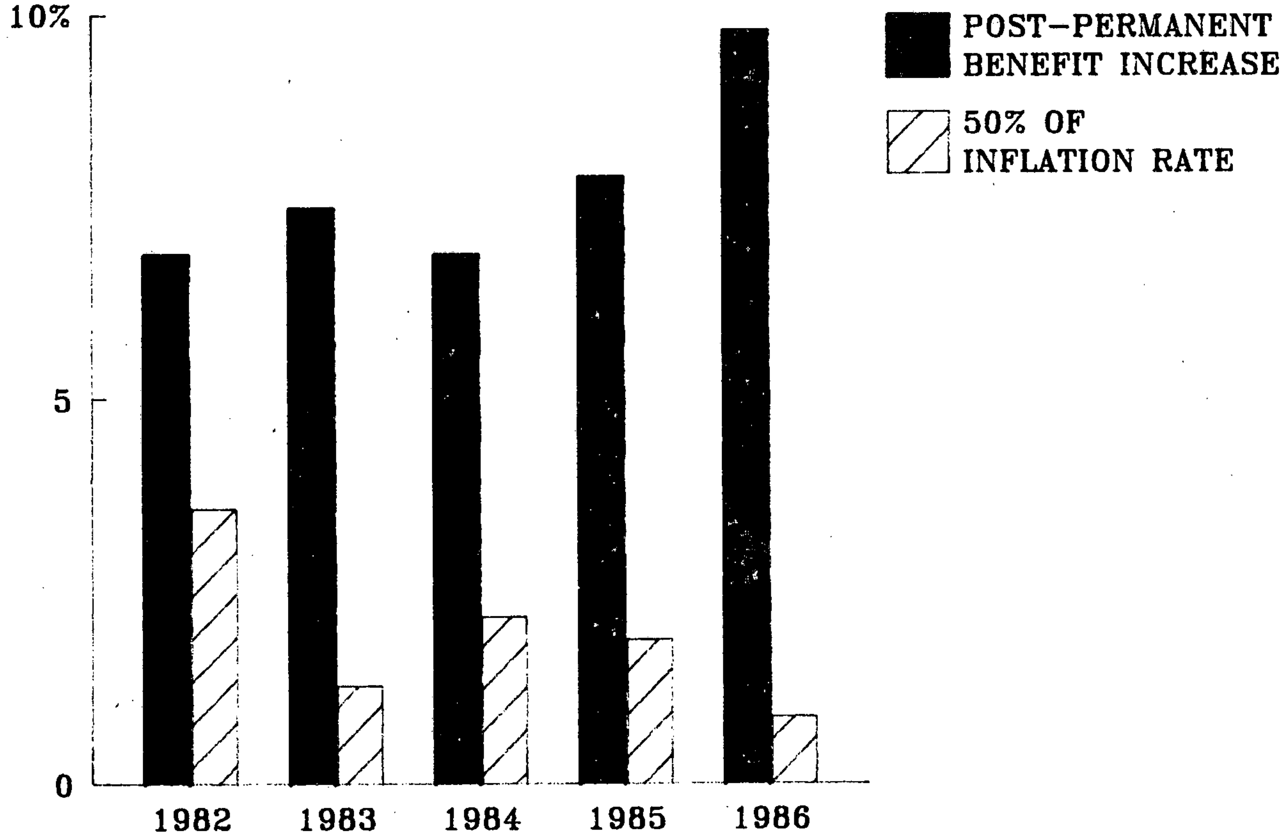
As described above, the dedicated bond portfolio represents the bulk of the Post Retirement Investment Fund's assets. SBI investment staff constructs the lowest cost portfolio, within established constraints, that produces sufficient cash flows to fund promised benefit payments and maintains adequate quality levels.

The management of the dedicated bond portfolio requires that the State's actuary supply SBI investment staff with forecasts of benefit payments expected to be paid over a twenty-year horizon. Based upon these forecasts, a computer program generates a list of bonds that will meet these forecasted benefits. SBI staff then attempts to purchase the recommended issues. If these bonds are not available, substitute bonds are purchased. The dedicated bond portfolio is rebalanced annually following the receipt of the benefit projections from the retirement systems.

COMMON STOCKS

The focus of the investment staff's common stock management is long-term, value-based stock selection. The strategies implemented by the investment staff are less aggressive than those utilized by the Basic Retirement Funds' external equity managers. As the only common stock manager for the Post

POST RETIREMENT INVESTMENT FUND
BENEFIT INCREASES VERSUS INFLATION



	FISCAL YEAR					(Annualized)	
	1982	1983	1984	1985	1986	3 YR.	5 YR.
BENEFIT INCREASE	6.9%	7.5%	6.9%	7.9%	9.8%	8.2%	7.8%
50%-INFLATION RATE	3.6	1.3	2.1	1.9	0.9	1.6	2.0

Retirement Investment Fund, the investment staff recognizes the diversification requirements of the Fund's stock portfolio. Further, staff is aware of the Fund's need to avoid investment strategies which generate high portfolio turnover and which, at times, could result in sizable realized losses.

The investment staff attempts to identify stocks that have attractive expected returns, yet do not possess significantly high levels of market volatility. The staff uses recommendations generated by quantitative valuation models as the primary source of investment candidates. In addition, selected recommendations of the Board's external equity managers are utilized if they fit the investment goals of the Fund. Investment staff always maintains a fully invested position in the equity portfolio. Market timing strategies are not utilized.

INVESTMENT PERFORMANCE

RISK-RETURN OBJECTIVES

Because of its focus on generating current income, the risk composition of the Post Retirement Fund's investment portfolio is conservatively structured. The majority of the Fund's assets are invested in high quality bonds. Further, the Fund's equity portfolio maintains a relatively high level of diversification and a moderate level of relative market volatility.

In terms of long-term rate of return objectives, the Fund's investment results are compared to three standards:

- o First, in order to finance promised benefit payments, the Fund must generate a level of interest and dividend income which, combined with realized capital gains, meets the Fund's actuarial assumptions of 5% per year.

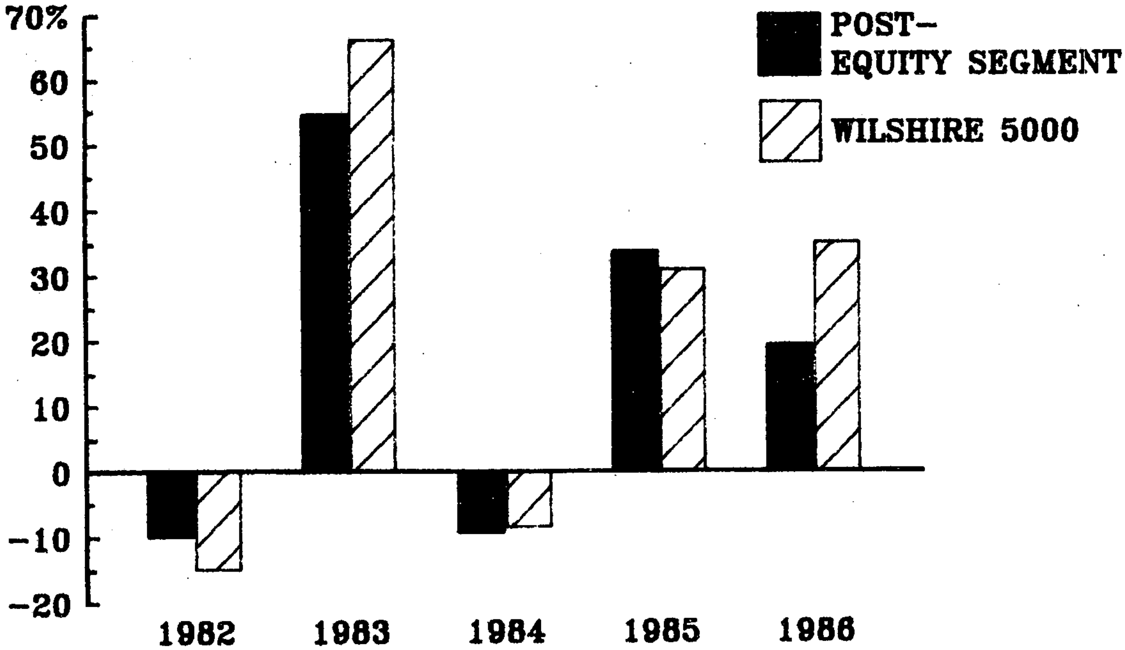
- o Second, the Fund is expected to produce additional earnings sufficient to allow benefits to increase at a rate at least one-half of the inflation rate.

- o Third, the total rate of return on the Fund's actively-managed common stock portfolio is expected to exceed the performance of the Wilshire 5000.

RISK-RETURN PERFORMANCE RESULTS

The Post Retirement Investment Fund's total portfolio met all of the prescribed risk targets during the 1986 fiscal year. The Fund was approximately 70% invested in fixed income assets, with an average quality rating of AAA. The Fund's common stock portfolio maintained a slightly above average level of relative market volatility and was consistently well-diversified.

POST RETIREMENT INVESTMENT FUND
EQUITY SEGMENT PERFORMANCE



	FISCAL YEAR					(Annualized)	
	1982	1983	1984	1985	1986	3 YR.	5 YR.
EQUITY SEGMENT	−9.8%	54.9%	−9.3%	33.9%	19.5%	13.2%	15.2%
WILSHIRE 5000	−15.0	66.5	−8.7	31.2	35.3	17.4	18.1

Overall, investment returns relative to performance objectives were satisfactory for the 1986 fiscal year. The Fund generated income and realized capital gains in excess of the amount needed to fund promised benefits. The surplus earnings will permit a benefit increase of approximately 9.8%, considerably above the fiscal year 1986 inflation rate of 1.7%. Equity performance, on a relative basis, was disappointing. The contrarian value style pursued by the Fund's internal equity manager did not perform well in a market dominated by consumer growth stocks. For the fiscal year, the equity component failed to outperform its benchmark, the Wilshire 5000. However, the internal manager did perform roughly in line with the other contrarian/value managers retained by the Board. Post Retirement Investment Fund performance data for the most recent fiscal year, as well as the last five years, are presented on page 36.

SUPPLEMENTAL INVESTMENT FUND

INCOME SHARE ACCOUNT

GROWTH SHARE ACCOUNT

FIXED RETURN ACCOUNT

BOND ACCOUNT

MINNESOTA SUPPLEMENTAL INVESTMENT FUND

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

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

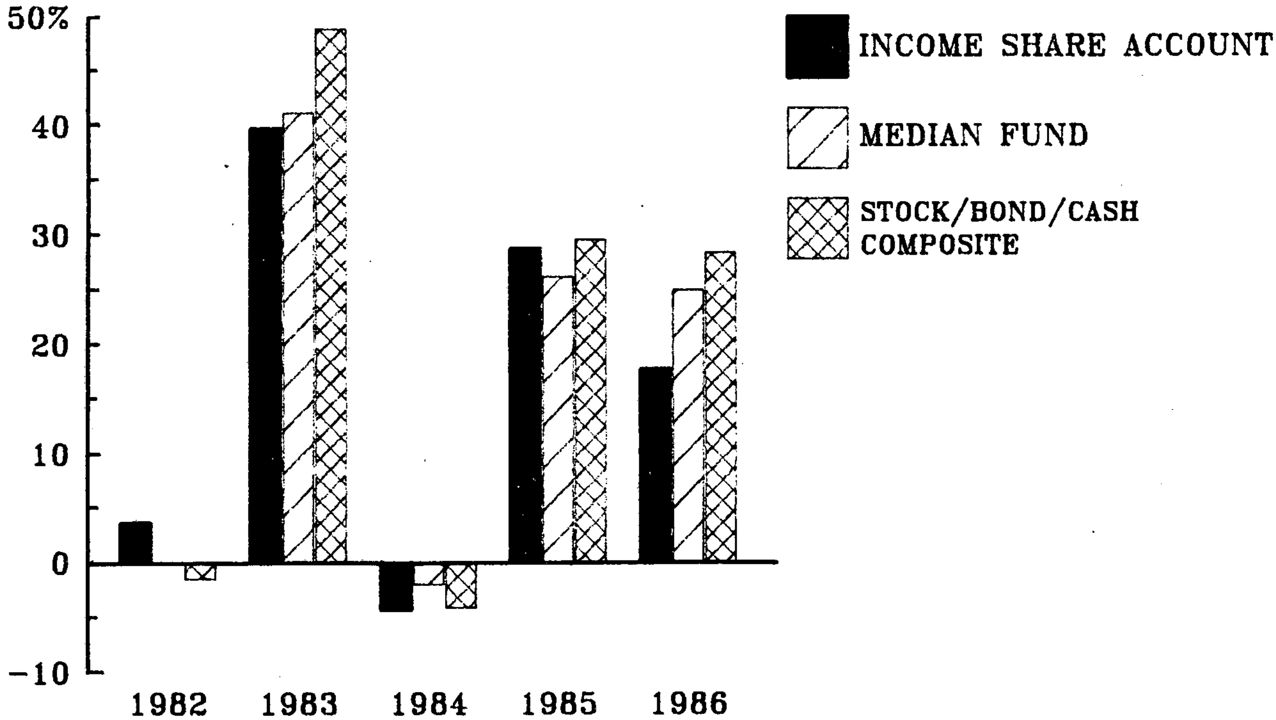
The Supplemental Investment Fund serves more than 14,000 individuals. On June 30, 1986 the market value of the entire fund was $346 million.

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

Throughout fiscal year 1986 most participants in the Fund had three different investment options: the Income Share Account; the Growth Share Account; or one of two debt-related accounts, the Fixed Return Account for individuals, or the Bond Account for retirement plans. At the Board's request, new legislation was passed during the 1986 legislative session to expand the range of options available to participants. As a result, three new accounts will be available to most participants beginning in fiscal year 1987: a Common Stock Index Account, a passively managed common stock portfolio; a Bond Market Account, a fixed income portfolio that will reflect changes in market value; and a Guaranteed Return Account, an investment option utilizing guaranteed investment contracts (GIC's). In addition, the Fixed Return Account will be converted to the Money Market Account, reflecting modifications in investment objectives.

SUPPLEMENTAL INVESTMENT FUND
(INCOME SHARE ACCOUNT)

TOTAL ACCOUNT PERFORMANCE



FISCAL YEAR

	1982	1983	1984	1985	1986	(Annualized) 3 YR.	5 YR.
TOTAL FUND	3.7%	39.8%	-4.4%	28.8%	17.8%	13.2%	16.1%
MEDIAN FUND*	-0.1	41.3	-2.1	26.3	25.1	16.4	17.6
COMPOSITE**	-1.6	49.0	-4.2	29.7	28.5	16.9	18.5
EQUITY SEGMENT	-5.1	53.7	-11.0	30.4	19.9	11.7	15.3
WILSHIRE 5000	-15.0	66.5	-8.7	31.2	35.3	17.4	18.1
BOND SEGMENT	12.1	36.2	2.3	32.1	16.2	16.2	19.1
BOND INDEX***	12.9	29.7	1.8	29.9	19.9	16.6	18.3

* TUCS MEDIAN TAX-EXEMPT BALANCED PORTFOLIO

** 50/45/5 WILSHIRE 5000/SALOMON BOND INDEX/91 DAY T-BILLS COMPOSITE THROUGH 12-31-82, 60/35/5 COMPOSITE THEREAFTER

*** SALOMON BROTHERS BROAD BOND INDEX

Each account in the Fund establishes a share value and participants may buy or sell shares monthly, based on the most recent unit value. In the existing Income Share and Growth Share Accounts and the new Common Stock Index and Bond Market Accounts, shares are priced monthly based on the market value of the entire account. In these accounts, investment returns are measured by changes in the account's share value, which in turn is a function of the income and capital appreciation (or depreciation) generated by the securities in the account. In the existing Fixed Return Account and its successor, the Money Market Account, share values remain constant and the accrued interest income is credited to the accounts through the purchase of additional shares, at predetermined intervals. In the Bond Account and the new Guaranteed Return Account, shares are valued in the same manner as the Fixed Return Account.

Fiscal year 1986 marked the first year the Fund participated in the Combined Investment Funds. The Combined Investment Funds are pools of assets invested in equities, fixed income securities and other asset classes utilized by the Board. Participation in the Combined Investment Funds provides the Supplemental Investment Fund with the same flexibility and efficiency of investment management afforded the Basic Retirement Funds.

The investment objectives, asset allocation, investment management and investment performance of each existing account in the Fund is explained in the following sections.

INCOME SHARE ACCOUNT

INVESTMENT OBJECTIVES AND ASSET ALLOCATION

The primary investment objective of the $179 million Income Share Account is similar to that of the Basic Retirement Funds. The Account seeks to maximize long-term inflation-adjusted rates of return. The Account pursues this objective within the constraints of protecting against disastrous financial environments and limiting short-run portfolio return volatility.

To achieve this objective, the Income Share Account is invested in a balanced portfolio of common stocks and fixed income securities. The Account's policy portfolio calls for a long-term asset allocation of 60% common stocks, 35% bonds, and 5% cash equivalents. Common stocks provide the potential for significant long-term capital appreciation, while bonds provide both a hedge against deflation and the diversification needed to limit excessive portfolio return volatility.

INVESTMENT MANAGEMENT

The Income Share Account's investment management structure combines internal and external management. The SBI's investment staff manages the entire fixed income component of the Account's portfolio and approximately four-fifths of the common stock portfolio. The balance of the common stock segment is managed externally.

The SBI investment staff manages the internal portion of the common stock portfolio with a long-term value-oriented approach appropriate for the balanced nature of the Account. The Income Share Account's external stock managers provide a complementary aggressive investment style. Due to the balanced investment goals of the Account, the percentage of the total portfolio assigned to aggressive equity management has been kept at a relatively low level. Through its participation in the common stock segment of the Combined Investment Funds, the Account utilizes the same external active equity managers as the Basic Retirement Funds.

INVESTMENT PERFORMANCE

Similar to the other SBI funds which utilize a multi-manager investment structure, the performance of the Income Share Account is evaluated on two levels: the total account and the individual manager level.

The total account performance of the Income Share Account is expected to exceed the returns of a composite of market indices weighted in the same proportion as the Account's policy asset allocation. Performance objectives for the Account's external equity managers are described on page 18 and 19 of the Basic Retirement Funds' discussion. Performance objectives for the Account's internal manager are described on page 33 and 35 of the Post Retirement Investment Fund discussion.

The Income Share Account failed to meet its performance targets on both a total account and individual manager level during the 1986 fiscal year. Total account results are presented on page 42. Discussion of individual manager performance can be found on page 24.

GROWTH SHARE ACCOUNT

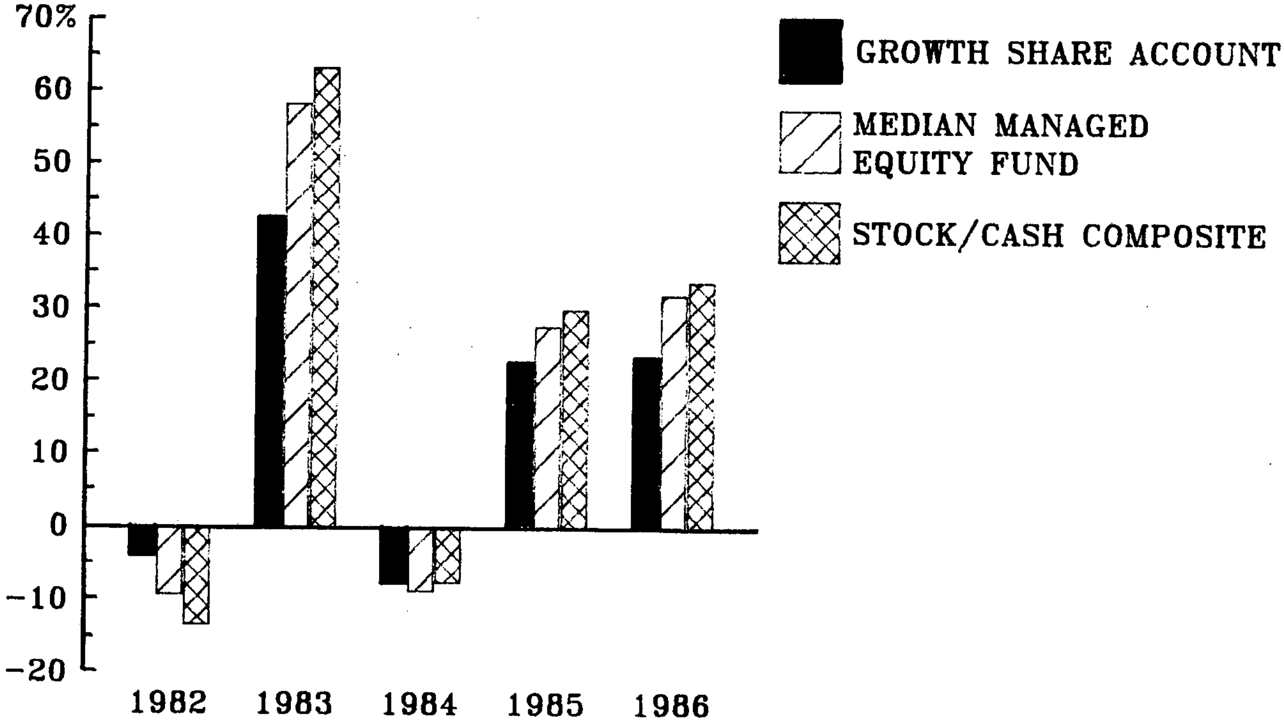
INVESTMENT OBJECTIVES AND ASSET ALLOCATION

The primary investment objective of the $79 million Growth Share Account is to generate above-average capital appreciation.

To achieve this objective, over the long-run the Account will hold a large permanent equity commitment. The Account's policy

SUPPLEMENTAL INVESTMENT FUND
(GROWTH SHARE ACCOUNT)

TOTAL ACCOUNT PERFORMANCE



	FISCAL YEAR					(Annualized)	
	1982	1983	1984	1985	1986	3 YR.	5 YR.
TOTAL FUND	-4.2%	42.7%	-7.5%	22.9%	23.4%	11.8%	13.9%
MEDIAN FUND*	-9.5	58.3	-9.0	27.7	32.0	15.8	18.3
COMPOSITE**	-13.6	63.2	-7.8	30.0	33.8	17.0	17.7
EQUITY SEGMENT	-9.4	56.7	-17.9	28.1	24.0	9.2	13.1
WILSHIRE 5000	-15.0	66.5	-8.7	31.2	35.3	17.4	18.1

* TUCS MEDIAN MANAGED EQUITY PORTFOLIO
** 95/5 WILSHIRE 5000/91 DAY T-BILLS COMPOSITE

asset allocation reflects this commitment through an asset mix of 95% common stocks, 5% cash equivalents. The small cash equivalents component represents the normal cash reserves held by the Account as a result of new contributions to the Account not yet allocated to common stocks. The Account's asset mix may vary substantially from its assigned policy portfolio at times. Depending on the Account managers' near-term outlook for the capital markets, the Account may invest up to 100% of its market value in stocks or may make a sizable allocation to cash equivalents.

Because of its sizeable common stock commitment, the Growth Share Account's returns likely will be more variable than those of the balanced Income Share Account. Higher long-run returns from the Growth Share Account's investments are expected to compensate for the additional variability of returns.

INVESTMENT MANAGEMENT

The management of the Growth Share Account's common stock portfolio is split equally between internal and external management. The SBI investment staff manages the internal component with a long-term value-oriented approach. The balance of the Growth Account's portfolio is managed by the Board's external active equity managers. As with the Income Share Account, the Growth Share Account's external equity component is achieved through its participation in the common stock segment of the Board's Combined Investment Funds. A larger percentage of the Growth Share Account than the Income Account is allocated to the external active equity managers to reflect the Growth Account's more aggressive investment policy.

INVESTMENT PERFORMANCE

The performance of the Growth Share Account is evaluated on a total account level and an individual manager level. The total account performance is expected to exceed the returns of a composite of market indices weighted in the same proportion as the Account's policy asset allocation. Performance objectives for the Growth Share Account's individual managers are described in the Income Share Account discussion.

The Growth Share Account in fiscal year 1986 failed to meet its total account and individual manager performance targets. Total account results are shown on page 45. Discussion of individual manager performance is located on page 24.

FIXED RETURN ACCOUNT

INVESTMENT OBJECTIVE AND ASSET ALLOCATION

The Fixed Return Account's investment objective is to generate high levels of current income by investing in debt securities. The Account's sole source of earnings is the interest income produced by its portfolio of securities. Participants experience minimal investment risk because all portfolio assets are held to maturity. Given this structure, there is little likelihood that the Account will realize capital losses (or gains) as a result of changes in the market value of the Account's assets. On June 30, 1986, the Account's market value was $77 million.

As currently established, the Fixed Return Account permits participation only by individual public employees as part of their authorized investment options. (Various retirement associations participate in a similar style of investment management through the Bond Account described below.)

INVESTMENT MANAGEMENT

The Fixed Return Account is managed entirely by SBI investment staff. Since all portfolio assets are held to maturity, staff provides very cost-effective management for the Account. To achieve the Account's investment objectives staff invests solely in investment grade debt securities (i.e. those rated BAA or above). Historically, investment staff had invested the Account in an intermediate-term maturity fixed income portfolio. New investments were made in the two-to-three year maturity range. Restructuring plans for the Supplemental Investment Fund called for the Fixed Return Account to be managed as a liquid money market fund beginning in fiscal year 1987. Thus, as interest rates declined during the 1986 fiscal year, investment staff gradually liquidated the Fixed Return Account's bond portfolio and reinvested the proceeds in cash equivalents. By year-end, the Account's portfolio maturity had been moved down to the targeted short-term level.

BOND ACCOUNT

The Bond Account was established by the 1981 Legislature to provide a separate fixed return investment vehicle for police and firefighter retirement organizations. The Bond Account is a low risk investment option which earns a high level of current income from quality debt securities. The Bond Account is managed solely by SBI investment staff. The Account is managed in a similar manner as the Fixed Return Account. However, the average life of the Bond Account's investments is longer than that of the Fixed Return Account. On June 30, 1986, the Bond Account had a market value of $11 million.

Participation in the Bond Account is offered to qualified retirement organizations only. Individuals do not participate in this Account. The Account is designed to offer participating organizations a fixed rate of return for a specified period of time. The length of time this established return is in effect depends on the average maturity of the Account's investments, usually in the range of six-to-eight years.

Contributions to the Bond Account made by the participating retirement organizations are grouped by year, referred to as a class year. Depending on the available fixed income investment opportunities available at the initiation of a class year, a rate of return is established for the contributions made by the participants in the class year. This rate is in effect for the life of the class. If a retirement organization chooses to withdraw from the Bond Account prior to the expiration of a class year, its shares are redeemed at market value.

MINNESOTA VARIABLE ANNUITY FUND

INVESTMENT OBJECTIVES

ASSET ALLOCATION

INVESTMENT MANAGEMENT

INVESTMENT PERFORMANCE

MINNESOTA VARIABLE ANNUITY FUND

The Minnesota Variable Annuity Fund is an investment option formerly offered to members of the Teachers' Retirement Association. The Fund was designed as an alternative to the regular teachers' retirement plan. The opportunity to enroll in the Fund is no longer offered to new Association members, although members enrolled prior to the cutoff date may retain their participation in the Fund and continue to make contributions. The June 30, 1986 market value of the Fund was $148 million.

INVESTMENT OBJECTIVE AND ASSET ALLOCATION

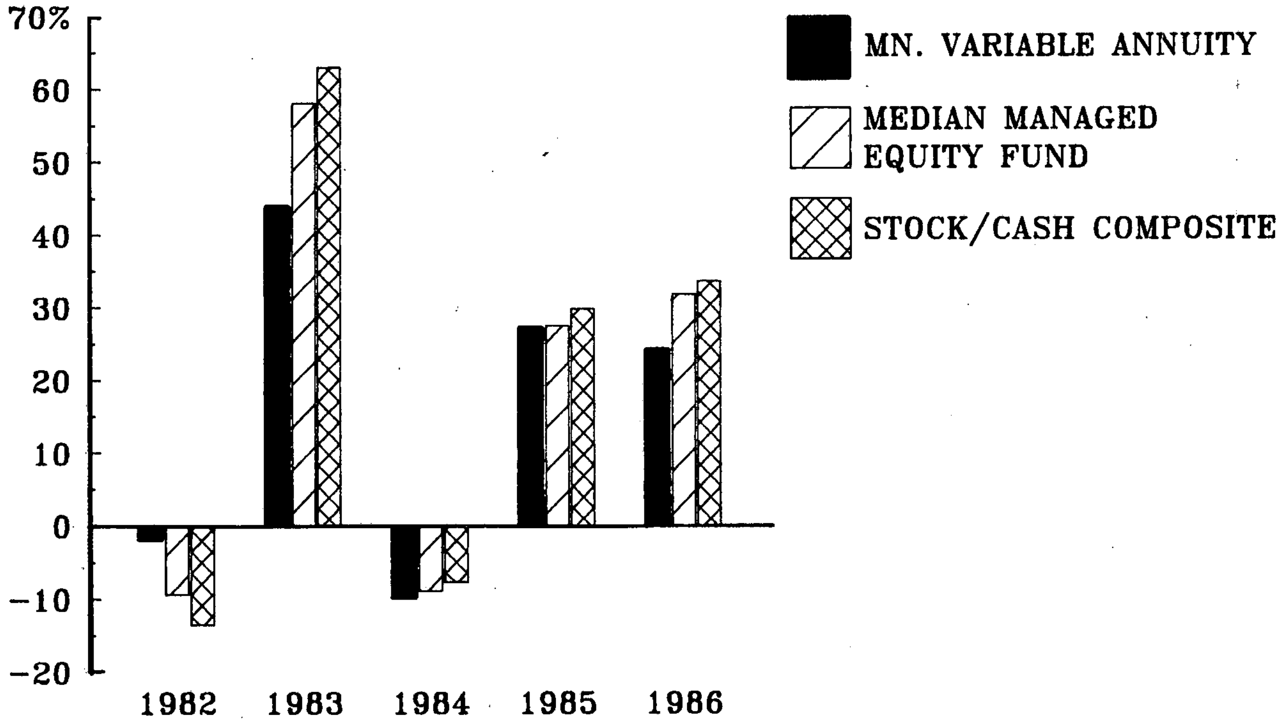
The investment objective of the Fund is the same as that of the Growth Share Account in the Supplemental Investment Fund. The purpose of the Variable Annuity Fund is to provide participants with above average long-run capital appreciation on their investments. This investment objective necessitates a sizable long-term commitment to common stocks. The Minnesota Variable Annuity Fund is authorized to hold up to 100% of its market value in common stocks. However, the Fund's portfolio may contain a considerable cash equivalent component at any given time, depending on the near-term investment strategies of its managers. Like the Growth Share Account in the Supplemental Investment Fund, the Variable Fund's policy asset allocation is weighted 95% common stocks/5% cash equivalents.

INVESTMENT MANAGEMENT

Management of the Fund is split equally between external and internal management. The role of the external managers is to provide an aggressive approach complementary to that of the internal investment staff. Like the Supplemental Investment Fund, the Variable Annuity Fund utilizes the same active external equity managers who invest common stocks for the Basic Retirement Funds. This sharing of equity managers is accomplished through participation in the equity segment of the Combined Investment Funds.

MINNESOTA VARIABLE ANNUITY FUND

TOTAL FUND PERFORMANCE



	FISCAL YEAR					(Annualized)	
	1982	1983	1984	1985	1986	3 YR.	5 YR.
TOTAL FUND	-1.9%	44.2%	-9.8%	27.5%	24.5%	12.7%	15.1%
MEDIAN FUND*	-9.5	58.3	-9.0	27.7	32.0	15.8	18.3
COMPOSITE**	-13.6	63.2	-7.8	30.0	33.8	17.0	17.7
EQUITY SEGMENT	-7.6	55.8	-14.1	30.3	24.9	11.9	15.0
WILSHIRE 5000	-15.0	66.5	-8.7	31.2	35.3	17.4	18.1

* TUCS MEDIAN MANAGED EQUITY PORTFOLIO
** 95/5 WILSHIRE 5000/91 DAY T-BILLS COMPOSITE

INVESTMENT PERFORMANCE

The Minnesota Variable Annuity Fund's total fund performance is expected to surpass the returns of a market indices composite weighted in the same proportion as the Fund's policy asset allocation. Performance objectives for the Fund's external equity managers are described on pages 18 and 19 of the Basic Retirement Funds discussion. Performance objectives for the Fund's internal manager are described on pages 33 and 35 of the Post Retirement Investment Fund discussion.

During the 1986 fiscal year, the Minnesota Variable Annuity Fund's performance failed to exceed the results of its total fund and individual manager performance objectives. Total fund results are presented on page 52. Discussion of individual manager performance can be found on page 24.

PERMANENT SCHOOL FUND

INVESTMENT OBJECTIVES

ASSET ALLOCATION

INVESTMENT MANAGEMENT

INVESTMENT PERFORMANCE

PERMANENT SCHOOL FUND

The Permanent School Fund is a trust fund created by the Minnesota State Constitution. The Fund was designed to serve as a long-term source of revenue for public schools. Proceeds from land sales, mining royalties, timber sales, and lakeshore and other leases are invested in the Fund. Income generated by the Fund's assets currently is used to offset state school aid payments. During the 1986 fiscal year, these offsets totaled $27 million. As of June 30, 1986, the Permanent School Fund had a market value of $365 million.

INVESTMENT OBJECTIVES

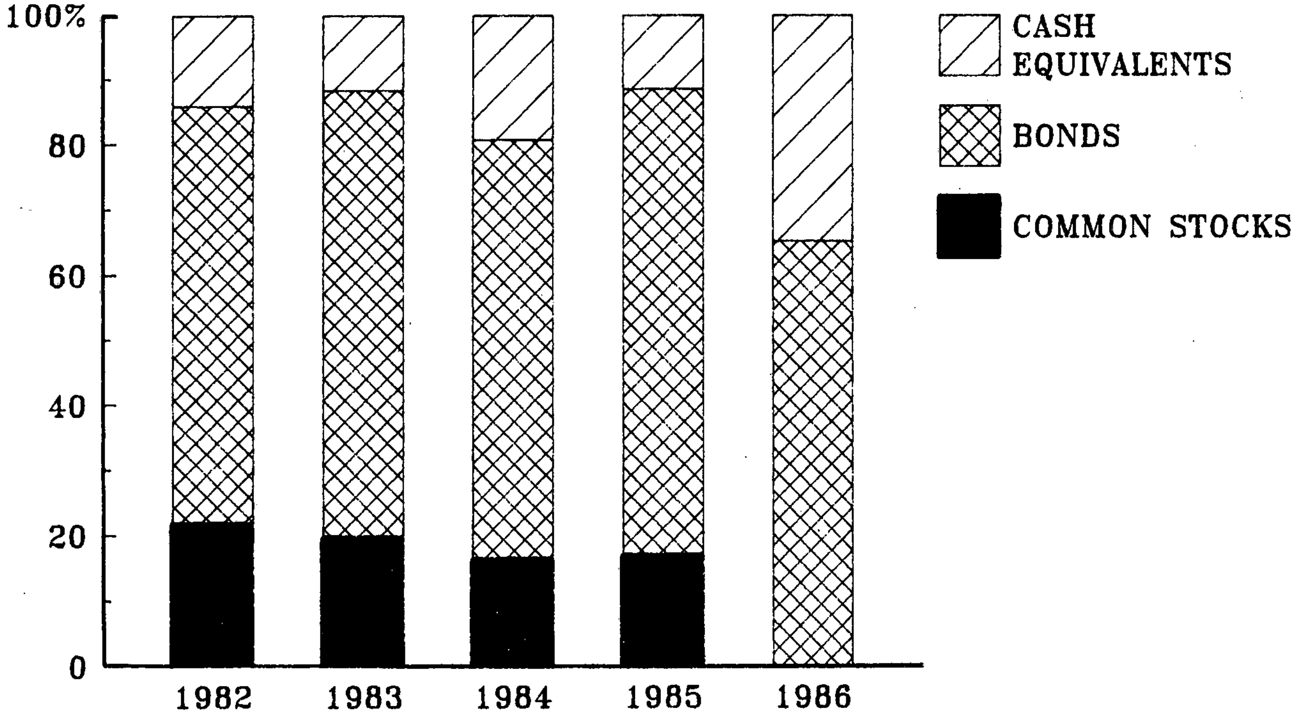
The Investment Board invests the Permanent School Fund to produce a high, consistent level of income that will assist in offsetting state expenditures on school aids. The Fund's investment objectives are influenced by the restrictive accounting provisions under which its investments must be managed. These provisions require that the Fund's principal remain inviolate. Further, any net realized equity and fixed income capital gains must be added to principal. Moreover, if the Fund realizes net capital losses, these losses must be offset against interest and dividend income before such income can be distributed. Finally, all interest and dividend income must be distributed in the year in which it is earned.

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

The Board maximizes current income by investing all of the Permanent School Fund's assets in fixed income securities. The Board has a strong incentive not to invest in equity assets for the following reasons. First, common stock dividend yields are considerably lower than bond yields. Thus, common stocks generate less current income than bonds. Second, equity prices are highly volatile and at times may produce realized capital

PERMANENT SCHOOL FUND
HISTORICAL ASSET MIX

PERCENT OF MARKET VALUE
FISCAL YEAR END ALLOCATIONS



	FISCAL YEAR				
	1982	1983	1984	1985	1986
COMMON STOCKS					
$MILLION	52.0	59.0	46.0	58.0	0.0
PERCENT	22.0	19.9	16.6	17.2	0.0
BONDS					
$MILLION	152.0	203.0	178.0	241.0	239.0
PERCENT	64.1	68.6	64.3	71.5	65.4
CASH EQUIVALENTS					
$MILLION	33.0	34.0	53.0	38.0	126.0
PERCENT	13.9	11.5	19.1	11.3	34.6
TOTAL FUND					
$MILLION	237.0	296.0	277.0	337.0	365.0
PERCENT	100.0	100.0	100.0	100.0	100.0

losses that will reduce spendable income. Finally, net capital gains become part of the Fund's principal. Therefore, the effect of the volatility of equity prices on the Fund's spendable income cannot be smoothed out by spending past realized capital gains.

ASSET ALLOCATION

Based upon a staff study of the Permanent School Fund's investment needs and objectives, late in the 1985 fiscal year the Investment Board chose to eliminate the Fund's relatively small equity holdings. In early fiscal year 1986, all of the Fund's assets were moved into fixed income securities. With the sharp decline in interest rates that occurred in fiscal year 1986, the Board maintained the proceeds of the equity sales in short-term securities. This move gives the Fund added flexibility in the event interest rates should rise again. The Fund's 1986 year-end asset mix, as well as its historical asset allocation data, are shown on page 58.

The Permanent School Fund's current investment focus is short-term. This situation is necessitated by the Fund's restrictive accounting provisions. However, the Board believes that the Fund's needs could better be met by a longer-term outlook. Under the current asset allocation, spendable income cannot grow over time. As a result, the value of income produced by the Fund, in inflation-adjusted terms, will gradually decline. On the other hand, a longer-term outlook that includes investments in equity assets could allow the Fund's principal, and hence spendable income, to grow. For a longer-term approach to be implemented, the Fund's accounting provisions will have to be altered. However, based on an Attorney General's opinion, it appears that the necessary changes will require a Constitutional amendment.

INVESTMENT MANAGEMENT

The Permanent School Fund is managed entirely by SBI investment staff. Given the existing accounting restrictions of the Fund, it would be extremely difficult for external managers to invest the Fund's portfolio. Typically, money managers seek to earn superior total rates of return (which include income and capital appreciation) through active management. The Fund's emphasis on producing high levels of current spendable income through passive investments is not compatible with the investment style of most money managers. In addition, with the move to an all-fixed income portfolio, SBI staff management of the Fund is the most cost-effective approach. The SBI investment staff manages the Permanent School Fund's bond portfolio primarily through a buy-and-hold approach. New purchases are evaluated in light of prevailing financial market conditions, as well as expectations of near-term changes in those conditions.

RISK-RETURN OBJECTIVES

The Permanent School Fund's investment current objective is to maximize spendable income, within the constraint of maintaining adequate portfolio quality. From a risk perspective the Fund's portfolio is very conservatively structured, as its target asset mix calls for a full commitment to fixed income securities. The risk assumed by the bond portfolio is influenced by its buy-and-hold investment approach. Subject to current and expected future financial conditions, the Fund will attempt to maximize interest income by investing in longer-term, high yielding investment grade bonds.

From a rate of return perspective, the Fund is not concerned with total rates of return. Market value changes have no effect on the Fund's ability to produce spendable income. Spendable income is affected only to the extent that any securities are sold at losses. Thus, the Fund's return objective is to maintain a high current yield on new investments.

RISK-RETURN PERFORMANCE RESULTS

At the end of the fiscal year, the Fund's bond portfolio had a duration of 4.6 years with an average quality rating of AAA.

The liquidation of the Fund's equity portfolio was invested in short-term securities. These securities generated a higher level of current income than was formerly provided by common stocks. For the fiscal year, the Finance Department's spendable income target was exceeded. Further, the Fund now has considerable flexibility should interest rates rise and/or yield spreads widen in the near future. In that environment, portfolio maturities can be lengthened and quality lowered to enhance portfolio yields.

STATE CASH ACCOUNTS

The $2.0 billion cash assets of State agency accounts and trust funds are invested to provide a high level of current income. These assets are invested in highly liquid, investment grade securities which mature within at least 3 years. All cash investments are managed by the SBI investment staff. Short-term investments include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit. The maturity structure of each individual account's portfolio depends on the cash flow needs of the respective account. The largest short-term accounts are the $851 million Invested Treasurers Cash; the $475 million Highway Funds; and the $201 million Debt Service Account.

As part of the cash management program, the SBI administers a securities lending program in which U.S.Treasury and Government Agency securities held by the SBI are loaned to banks and government security dealers for a daily fee. These loans are fully collateralized. The Securities Lending Program has generated approximately $1.5 million per year in additional income for its accounts.

The SBI also manages a certificate of deposit (CD) program in which it purchases CD's from Minnesota banks and savings and loan institutions. The Board receives a market rate of return on these investments, utilizing the average secondary CD market rate quoted by the New York Federal Reserve Bank. All investments are fully insured by the Federal Deposit Insurance Corporation or Federal Savings and Loan Insurance Corporation. The Minnesota Certificate of Deposit program provides a reliable source of capital to all Minnesota financial institutions, regardless of size, many of which do not have access to the national CD market. The SBI designed the loan process so that no single institution is favored in the allocation of assets. Since it began in 1980, the CD program has loaned over $900 million to 365 financial institutions throughout the state.

FISCAL YEAR 1986
MAJOR DEVELOPMENTS

SUPPLEMENTAL INVESTMENT FUND

BENCHMARK PORTFOLIOS

PERFORMANCE–BASED FEES

CONSULTANT SEARCH

ALTERNATIVE INVESTMENT FUNDING

SOUTH AFRICA RESOLUTION

SHAREHOLDER ACTIVITIES

1986 MAJOR DEVELOPMENTS

SUPPLEMENTAL INVESTMENT FUND

The Supplemental Investment Fund is a multi-purpose investment program that offers a range of investment options to state and local public employee groups. The nature of the retirement programs offered through the Fund varies from group to group. The Fund serves as a tax-sheltered savings program, similar to corporate 401(K) plans, for the Deferred Compensation Plan. For unclassified state employees, the Fund represents their entire pension plan. For local police and firefighter retirement plans, the Fund serves as a money manager for part of the plans' assets. Finally, for state university/community college teachers and Hennepin County employees, the Fund is a pension supplement. More than 14,000 individuals participate in the Fund.

Because the Supplemental Investment Fund plays many roles for many retirement groups, it needs to offer a wide array of investment alternatives. Participants should then be able to select the option(s) that best meet their particular investment objectives.

In recent years, the Supplemental Investment Fund has offered three alternatives. The first option is the Growth Share Account. It is an all-common stock fund which aggressively seeks superior returns through assuming above-average levels of investment risk. The second option is the Income Share Account. It is a balanced fund that holds a diversified portfolio of common stocks, bonds, and cash equivalents. It too seeks superior total returns, but without exposing itself to the volatility of the Growth Share Account. The final option is the Fixed Return Account (for individuals) and the Bond Account (for retirement organizations). These accounts buy and hold high quality, short-to-intermediate term debt securities and provide interest bearing, low risk investments.

After reviewing this account structure, SBI staff determined that the existing set of investment options did not provide sufficient investment flexibility and diversity. To address this deficiency, staff recommended that the Fund be restructured in two ways. First, the Fund should offer a wider range of investment vehicles. Second, the investment goals of each account should be more narrowly focused.

Specifically, staff proposed that the Fund be composed of seven separate accounts, or investment options:

- o Income Share Account (existing option) - an actively managed, balanced portfolio utilizing both common stocks and bonds
- o Growth Share Account (existing option) - an actively managed, all common stock portfolio
- o Common Stock Index Account (new option) - a passively managed, all common stock portfolio designed to track the performance of the entire stock market
- o Bond Market Account (new option) - an actively managed, all bond portfolio that reflects changes in the market value of bonds
- o Money Market Account (new option) - a portfolio utilizing short term, liquid debt securities
- o Guaranteed Return Account (new option) - an option utilizing guaranteed investment contracts (GIC's), which offer a fixed rate of return for a specified period of time.
- o Bond Account (existing option) - a portfolio of intermediate term debt securities that are bought and held to maturity. This option is available only to local police and firefighter retirement plans.

Staff further recommended that the existing Fixed Return Account be replaced by the new Money Market Account. The new fixed income options provide participants more specialized investment alternatives.

With the exception of the GIC account, the SBI currently manages investment pools through the Combined Investment Funds that correspond to each of the proposed options. As a result, staff believed the expanded program would be relatively simple to administer.

The Board adopted the staff recommendations and proposed the necessary statutory changes during the 1986 legislative session. After the legislation was enacted, staff prepared a new prospectus, or explanatory brochure, to describe the new range of options. The document has been distributed by the participating retirement organizations and its revised format has gained wide acceptance.

The Money Market, Bond Market and Common Stock Index Accounts accepted new contributions effective July 1986. The Guaranteed Return Account was opened for investments in November 1986.

With its new account structure, the Supplemental Investment Fund will be better able to meet the differing needs of the public employees and retirement plans that participate in the Fund. Through the purchase of shares in one or more accounts, participants will have the flexibility to design investment programs that are tailored to meet their individual investment objectives.

BENCHMARK PORTFOLIOS

During fiscal year 1986, the investment staff developed benchmark portfolios for the Board's twelve active common stock managers. A benchmark portfolio, also termed a "normal" portfolio, is a customized index that represents the investment style of an individual money manager. A benchmark portfolio reflects the prominent risk characteristics that a manager's portfolio would exhibit if the manager were making no active investment judgments.

Benchmark portfolios are useful to pension plan sponsors on two levels: the total fund level and the individual manager level.

On the total fund level, a fund's long-run investment objectives can be represented by the asset mix of a benchmark portfolio. Active strategies that cause a plan to deviate temporarily from its long-term asset mix policy weights can be evaluated by comparing the actual performance of the fund with the performance of the benchmark portfolio.

The Board has included total fund benchmarks in its performance evaluation and measurement system for several years. Custom indices have been developed as performance targets for the Basic Retirement Funds, Supplemental Investment Fund, and the Minnesota Variable Annuity Fund. The custom indices are composites of broad market indices, weighted to reflect the risk-return objectives of the individual funds. For example, the performance of the Basic Retirement Funds' total portfolio (excluding alternative equity assets) is evaluated relative to the performance of a benchmark portfolio weighted 65% Wilshire 5000, 30% Salomon Brothers Broad Bond Index, and 5% Cash Equivalents. A more comprehensive description of the total fund benchmarks and their function in the Board's evaluation system is included in the individual fund sections. (See pages 18,43,46 and 51).

On the individual manager level, benchmark portfolios serve three primary functions.

- o First, as representations of managers' styles, benchmark portfolios are useful in the selection of managers.

- Second, the benchmark portfolios of individual managers can be aggregated to yield a picture of the long-run risk exposure of a total portfolio.

- Finally, benchmark portfolios are appropriate targets against which to measure the performance of individual managers. At times, a manager may perform well simply because his style is "in favor." As representations of managers' styles, benchmark portfolios compensate for this factor, allowing plan sponsors to evaluate more effectively the value a manager has added to the investment process.

The construction of the individual manager benchmark portfolios entailed five basic steps:

- First, a qualitative understanding of the managers' investment decision-making processes was gained through a lengthy series of interviews between SBI staff and the common stock managers.

- Second, the managers' past portfolio holdings were analyzed to identify prominent financial characteristics.

- Third, lists of securities constituting the managers' benchmark portfolios were developed by screening a broad list of securities. The financial characteristics identified in the previous step were used for the screens.

- Fourth, the securities were weighted and a normal cash position was assigned to reflect the managers' general operating policies.

- Finally, the benchmark portfolios were backtested. In this step, the performances of the benchmark portfolios over the past several years were compared with the managers' actual performances and the performance of the stock market during the same period.

The construction of benchmark portfolios involves many subjective decisions. The benchmark portfolios constructed in 1986 reflect staff's current understanding of the managers' investment styles. The portfolios may be modified in the future to reflect new insights into the managers' investment styles or changes in those styles.

Going forward, the benchmark portfolios will be used in the on-going monitoring of the active equity managers. The risk characteristics and the performance of the managers' actual portfolios will be assessed relative to their assigned benchmark portfolios. In addition, benchmark portfolios will be a key component of the Board's new performance-based fee system, which is described in the following section.

PERFORMANCE-BASED FEES

The Minnesota State Board of Investment was one of the first major institutional investors to adopt a performance-based fee system for its active common stock managers. Two significant events occurred during fiscal year 1986 which enabled the Board to institute the new fee system.

First, the Securities and Exchange Commission (SEC) lifted its long-standing prohibition on performance-based fees. Prior to November 1985, the SEC had allowed only flat fee systems. Compensation for managers under flat fee systems is calculated as a specific percentage of the market value of the assets a manager is investing. Under this type of system, managers receive compensation regardless of their absolute or relative performance.

The second event to occur was the completion of benchmark portfolios for the Board's active common stock managers. To implement a performance-based fee system, managers must be evaluated relative to meaningful performance targets. Benchmark portfolios are the appropriate targets.

As discussed in the previous section, benchmark portfolios are custom indices that represent managers' particular investment styles. As such, they compensate for the fact that managers may perform well or poorly simply because their styles are "in" or "out" of favor. Under flat fee systems, a manager's compensation is tied to the market value of the assets the manager is investing. Since the market values of managers' assets may increase primarily because their styles have performed well, managers may be rewarded for events which are essentially outside their control. Benchmark portfolios enable sponsors to assess the value managers add to the investment process in excess of the value added by their investment styles. By basing fees on this "excess" performance, the managers' compensation is shifted to events within their own control.

In proposing the new fee system to the Board, staff and the Equity Manager Committee cited three principal advantages of performance-based fees over flat fees.

- First, because managers must share the risk of poor performance with the client, performance-based fees provide for a more equitable relationship between manager and client.

- Second, performance-based fees lead to a more efficient relationship between client and manager since managers must consider a client's risk-return preferences when constructing the client's portfolio.

- Finally, performance-based fees result in a more comprehensive client/manager relationship by giving the managers a monetary incentive to examine all the aspects of the investment business that impact the client's portfolio, including commission costs, market impact of trades, etc.

Staff and the Committee evaluated several different types of performance fee structures. Based on its study of various fee designs and their potential impact on the behavior of managers, the staff and Committee recommended that the Board adopt a symmetrical fulcrum fee system for the Board's active common stock managers.

A symmetrical fulcrum fee establishes a base compensation for a manager and a performance target against which additional compensation (positive and negative) is paid. The base fee is set at a rate similar to the fees paid under a flat fee system. If a manager's performance matches that of the target, no additional fee is paid. If his performance exceeds that of the target, an additional predetermined amount is paid. If his performance fails to match that of the target, the base fee is reduced by the same predetermined formula. Thus, performance above the target produces additional payments to managers that are equivalent to those withheld from managers for performance below the target.

The Board adopted the symmetrical fee system at its March 5, 1986 meeting. The system was presented to the Board's external active common stock managers. Ten of the eleven managers accepted the proposal. Effective July 1, 1986, the ten managers will be compensated under the same formula. (The one remaining manager will continue to be compensated under a flat fee system.) The major provisions of the performance-based fee agreement are described below:

- The annual fee will be composed of two parts: the base fee and the performance fee.

- The base fee will be paid quarterly, in arrears. It will be calculated as a percentage of the end-of-quarter market value of the total SBI assets managed by the manager and will be paid at an annual rate of 50 basis points.

- The performance fee will be paid annually, in arrears, and will be based on the manager's total fund return relative to the manager's benchmark portfolio return.

- The performance fee will be computed according to the following formula (in basis points)

  PF = (RM-RN-200)/15

where:
PF = performance fee
RM = return on manager's portfolio
RN = return on benchmark portfolio

- The maximum annual performance fee rate will be 50 basis points. The minimum rate will be -50 basis points.

- The performance fees will be calculated by assigning a one-quarter weight to the most recent year's relative returns and a three-quarters weight to the trailing three year's relative returns. Provisions have been made for applying the formula in the first two years of implementation.

- The performance measurement period will be one full fiscal year ending June 30.

- If a contract with a manager is terminated prior to the end of a full fiscal year, no performance fee will be paid for that year.

- In the event of a manager termination, any and all outstanding performance fee balances must be paid in full within 60 days of the termination date.

CONSULTANT SEARCH

At its March 5, 1986 meeting the Board requested that its consulting contract be rebid. The Board expressed satisfaction with the performance of Evaluation Associates, whose consulting contract was to expire at the end of fiscal year 1986. However, the Board felt that its consulting needs had changed substantially and wished to reassess the firm's capabilities in light of new alternatives.

A Committee was formed to conduct the consultant search. The Committee was composed of one person appointed by each Board member as well as two IAC members with experience in this area.

Working with SBI investment staff, the Committee prepared a request-for-proposal and submitted it to fifteen consulting firms, ten of which responded. After reviewing the responses, the Committee selected the following three firms for personal interviews: DeMarche Associates, Evaluation Associates, and Richards and Tierney.

Based on the responses to the request-for-proposal and the interviews, the Committee recommended that Richards and Tierney be retained by the SBI as its consultant. In presenting its recommendation to the Board, the Committee cited Richards and Tierney's superior understanding of investment management structures, performance measurement and investment techniques. The Committee noted that the firm's expertise and perspective in these areas would be extremely helpful in advising the Board on its future decisions.

The Board approved the hiring of Richards and Tierney at its June 12, 1986 meeting. The consulting contract will be effective for one year, fiscal year 1987, but can be renewed on an annual basis.

In addition to this contract, the Committee also recognized that the Board may periodically require other specialized consulting services on an ad hoc or project basis. In order to obtain the most appropriate consultants for these projects, the Committee recommended that the Board contract with firms for special projects as needed. As with all requests for consulting services, the Board will review and approve all special project contracts as they arise.

ALTERNATIVE INVESTMENT FUNDING

REAL ESTATE

In the first phase of its three-part real estate program, the establishment of a broadly diversified core portfolio, the SBI committed a total of $120 million to three open-end commingled funds. The funds are designed specifically for institutional investors and are managed by the Aetna, Equitable, and Prudential Insurance Companies. The Board initiated phase two of its program, the allocation to diversified closed-end funds, in 1984 with commitments of $75 million to the USA Fund III, managed by the Rosenberg Real Estate Equity Funds (RREEF) and $20 million to Heitman Real Estate Fund I, managed by Heitman Advisory Corporation.

The third stage of the real estate program, the selection of special orientation managers, began in 1985. During the specialty manager search, the SBI investment staff and the Investment Advisory Council's Alternative Investment Committee interviewed managers that specialize in particular property types, geographic regions, or financing mechanisms. The staff and Committee recommended, and the Board approved, commitments of $40 million to Trust Company of the West Fund III and $20 million to State Street Bank and Trust Fund III, managed by Aldrich, Eastman and Waltch. Both Trust Company of the West and Aldrich, Eastman, Waltch specialize in the use of innovative investment vehicles such as convertable and participating mortgages to maximize real estate returns.

During fiscal year 1986, the Board continued the implementation of phases two and three of the program with commitments to two closed-end funds. The Board committed $30 million to the diversified Heitman Fund II and $20 million to the special-orientation State Street Fund IV. These two funds will be managed in essentially the same manner as their predecessor funds, Heitman I and State Street III.

Since the program's inception in 1981, the Board has approved a total of $325.0 million in commitments to ten real estate funds. The program is approaching completion. The investment staff and Committee anticipate that the Basic Funds' target 10% allocation will be reached primarily through follow-on investments in funds raised by the Board's current group of real estate managers. It is expected that the real estate program will be completed within the next one to two years.

VENTURE CAPITAL

The SBI initiated the Basic Funds' venture capital program in 1984 with commitments of $10 million to Northwest Venture Partners, a Minnesota-based diversified venture capital limited partnership, and $25 million to the Kohlberg, Kravis, and Roberts 1984 Leveraged Buyout Fund. During fiscal year 1985, the SBI proceeded with the implementation of the program, making a total of $52.5 million in commitments to the following six venture funds: First Century III (Smith Barney); Summit Ventures; Data Science Ventures IV; Matrix Partners II; Inman and Bowman, and the Allied Venture Partnership. The partnership selections were based primarily on the venture managers' extensive venture capital experience and their ability to contribute to the diversification of the aggregate Basic Funds' venture portfolio.

The Board continued the implementation of the venture program in fiscal year 1986. The Board committed an additional $50 million to KKR's $2 billion 1986 Leveraged Buyout Fund. In addition, with its diversified venture portfolio in place, the Board initiated its first special orientation venture investment with a commitment of $6.6 million to Superior Ventures. Superior Ventures, a $34 million venture capital limited partnership, will be managed by a subsidiary of Investment Advisers, Inc. Up to 15% of the Superior Ventures Fund will be invested in other Minnesota-based venture capital partnerships. The remainder of the fund will be invested directly in operating companies located within Minnesota. With the exception of its geographic focus, the structure of Superior Ventures is similar to a venture partnership currently managed by Investment Advisers.

In addition to these commitments, the Committee and staff evaluated methods of handling possible distributions of common stock from the venture partnerships in which the Board participates. Committee and staff recommended, and the Board subsequently approved, the hiring of T. Rowe Price Associates to manage future stock distributions. T. Rowe Price has an experienced emerging growth stock research staff. More importantly, the firm has the trading capacity to sell the illiquid small capitalization securities the Board is likely to receive from its partnerships.

With the 1986 commitments, the Basic Funds' venture program is essentially complete. New venture investments will be added to the portfolio as needed to maintain the target 2.5% allocation.

RESOURCE FUNDS

A commitment of $22 million to two oil and gas partnerships sponsored in 1981 and 1983 by First Reserve represented the inception of the Basic Funds' resource program. The program continued with the Board's 1984 commitment of $22.5 million to an investment sponsored by Apache Corporation. In 1986, the Board committed an additional $23 million to a second Apache fund. This fund financed the acquisition of a number of both fully and partially developed oil and gas properties which will be managed by Apache Petroleum Corporation.

As discussed on page 17, the Alternative Investment Committee and staff believe that the sharp decline in energy prices and the resulting depressed state of the oil and gas industry will lead to attractive investment opportunities. However, Committee and staff have found it difficult to identify resource investments that fully reflect the lowered energy prices. Committee and staff will continue to review available opportunities and will bring recommendations to the Board in fiscal year 1987 as appropriately structured vehicles are found.

RESOLUTION ON COMPANIES THAT DO BUSINESS IN SOUTH AFRICA

On October 2, 1985, the Board adopted a resolution concerning its holdings in companies doing business in the countries of South Africa and Namibia. The resolution calls for the Board to implement a four-phase divestment program which will be completed in 1989. The resolution also requires that divestment action will not take place before the Board obtains legal and financial advice concerning any impact on its fiduciary responsibilities. (See page 77 for the complete text.)

When the resolution was adopted, the Board created a Task Force on South Africa to advise the Board on its implementation process. Membership of the Task Force includes one person designated by each of the five Board members as their representative, one representative from the private sector, one representative from the retirement fund systems, and one public employee representative.

SUMMARY OF RESOLUTION

The resolution establishes the following timetable for the SBI's divestment program:

Phase 1: By January 2, 1986, the SBI will limit its holdings and future investments to companies that are signatories of the Sullivan Principles, as most recently amended, and/or are making substantial efforts to eliminate Apartheid.

Phase 2: By August 3, 1986, the SBI will limit its holdings and future investments to companies that meet the requirements of Phase 1 and that subject their behavior in South Africa or Namibia to monitoring by Arthur D. Little, Inc., or similar, suitable monitor.

Phase 3: By August 3, 1987, the SBI will limit its holdings and future investments to companies that have complied with Phases 1 and 2 and that obtain the highest Sullivan Principles rating by Arthur D. Little, Inc., or the equivalent thereof.

Phase 4: By August 3, 1989, the SBI will be divested of and make no new investments in companies doing business in South Africa.

In addition, the resolution requires the SBI to consider divesting its holdings in companies which operate in a manner which directly supports Apartheid. Companies that support Apartheid are those which provide goods or services to governmental agencies responsible for the enforcement of Apartheid; provide technology or facilities which make South Africa or Namibia less dependent on international trade; or provide financial services to the government or governmental agencies of South Africa or Namibia.

ACTIVITIES DURING PHASE 1

During Phase 1, the Board and the Task Force focused implementation of the resolution on companies in the actively managed common stock portfolios that had not signed the Sullivan Principles. During late calendar 1985 the Board corresponded with more than 100 companies that were known to do business in South Africa. Based on that correspondence and on information available through Investor Responsibility Research Center (IRRC), it was initially determined that twenty companies in the actively managed portfolios had not signed the Sullivan Principles. By the end of Phase 1, fourteen of these companies became signatories or instituted a policy comparable to the Sullivan Principles, and three companies sold their operations in South Africa.

As part of its implementation of the resolution, the Board planned to sponsor or co-sponsor nine shareholder resolutions during the 1986 proxy season calling for companies to sign the Sullivan Principles. Six of these resolutions were withdrawn when the companies became signatories prior to their annual meetings. The three resolutions co-sponsored by the Board and a count of their affirmative vote are shown below:

Diamond Shamrock	18.03%
Hughes Tool	21.14%
U.S. Steel (USX)	16.38%

While these totals may appear low, it should be noted that shareholder resolutions usually receive about 5% of the vote.

At the end of Phase I, three companies in the actively managed common stock portfolios had not signed the Sullivan Principles (or instituted a comparable policy). After reviewing the reports of its financial and legal advisors, the Board decided not to immediately liquidate stocks in these companies, but chose to proceed with divestiture through transactions occurring during the normal course of business. If investment managers decided to sell any of these stocks through the normal course of business, the Board instructed them not to repurchase the security unless the managers anticipated that action would violate their fiduciary obligations. If managers repurchased any stock in these companies, they were instructed to notify the Board of that action. The managers abided by the Board's request, and in those instances where the stock was sold, there was no repurchase.

Before the end of fiscal year 1986, external stock managers had sold approximately 50% of their holdings in the three companies identified in Phase 1 (based on December 31, 1985 market value of shares sold compared to the market value of holdings on December 31, 1985).

Events occurring after June 30, 1986 would not normally be included within this annual report. However, it is significant to note that as of August 31, 1986, the actively managed common stock portfolios did not contain the stock of any company which had not signed the Sullivan Principles. This change was largely due to U.S. Steel (USX) signing the Sullivan Principles early in fiscal year 1987. In addition, several stock managers sold their holdings in other non-signatory companies during the normal course of business.

RESOLUTION OF THE
MINNESOTA STATE BOARD OF INVESTMENT

WHEREAS, the policy of Apartheid as maintained by the present government of the Republic of South Africa is not only morally repugnant to all who believe in the inherent rights of individual freedom and equal treatment under the law and has resulted in the systematic enslavement and subjugation of the non-white majority of South Africa and Namibia but casts doubt on the safety and stability of investment in companies doing business with, operating in, or making loans to the Republic of South Africa or Namibia:

NOW, THEREFORE, BE IT RESOLVED THAT:

1. No monies held and invested by the Minnesota State Board of Investment (SBI) shall remain invested in or hereinafter be invested in the stocks, securities or other obligations of:

(a) any foreign or United States company or any subsidiary or affiliate thereof doing business or operating in the Republic of South Africa or Namibia, or

(b) any bank or financial institution which makes loans to the Republic of South Africa or Namibia or a governmental enterprise thereof, or other loans deemed by the SBI to directly support Apartheid, subject to and in accordance with the provisions hereinafter set forth.

2. Foreign and United States companies, and subsidiaries and affiliates thereof covered by Section 1 shall be identified:

(a) by reference to the most recent annual report of the American Consulate General of Johannesburg, entitled "American Firms, Subdivisions and Affiliates - South Africa," of

(b) through correspondence with the United Nation's Office of the Commissioner for Namibia and the United Nation's Center on Transnational Corporations, or

(c) by other procedures satisfactory to the SBI.

3. Banks or financial institutions covered by Section 1 shall be identified:

(a) from the records of the Interfaith Center on Corporate Responsibility, or

(b) from affidavits of such institutions, or

(c) by other procedures satisfactory to the SBI.

4. The divestiture required by Section I shall be completed not later than August 3, 1989. Notwithstanding anything contained herein to the contrary, if during the process of divestiture, the SBI determines that completion of divestiture not later than August 3, 1989 would be inconsistent with the SBI's fiduciary obligations, then the SBI shall authorize an extension of time within which to complete divestiture. The SBI shall periodically evaluate the situation in the Republic of South Africa and Namibia and determine whether the divestiture program shall be accelerated, decelerated or otherwise modified, including whether, as a result of lack of improvement in conditions in those countries, or for other reasons, it is necessary to seek complete divestiture of the securities covered by this resolution.

5. During implementation of this resolution, the SBI shall hereafter neither invest funds in the stocks, securities or other obligations of i) foreign and United States companies and subsidiaries and affiliates thereof or ii) banks or financial institutions both of which are described in sections one, two and three of this resolution nor reinvest funds in the stocks, securities or obligations of such entities following the divestment or sale thereof unless:

(a) SBI staff or other persons and entities charged with the day-to-day investment of funds entrusted to the SBI conclude that other available investment alternatives are not as sound from a fiduciary point of view, or

(b) the SBI concludes that the failure to invest or reinvest in such entities would be inconsistent with the SBI's fiduciary obligations.

(c) the entities meet the standards set forth in section 7 of the resolution.

6. The process of divestiture of and limiting new investments in equity securities will be conducted according to the timetable set forth below, consistent with fiscal prudence and so as to minimize financial market disturbance.

(a) Phase One, to be completed within three months of approval of this resolution, will cover equity securities of those businesses covered by Section 1 of this resolution which (i) operate in a manner which directly supports Apartheid; or (ii) are not signatories of the Sullivan Principles, as amended from time to time, and have never exhibited evidence of a similar corporate policy promoting equal treatment and improving the lives of non-white workers in the Republic of South Africa or Namibia. The SBI shall determine which corporate equities are covered under Phase One through evidence gathered by outside groups monitoring corporate behavior in the Republic of South Africa and/or Namibia as well as by corporate responses to their own inquiries a company shall be deemed to be operating in a manner which directly supports Apartheid if:

(i) it provides goods or services to the South African military, police, prisons, the Ministry of Cooperation and Development (which administers the pass laws), or any other governmental agency responsible for the enforcement or maintenance of Apartheid;

(ii) it provides technology or facilities such as energy producing plants that tend to make the Republic of South Africa less dependent on international trade and thus less susceptible to outside pressure for change;

(iii) it provides loans directly to, underwrites securities of, sells gold on behalf of, or otherwise provides financial services to, the government of the Republic of South Africa; or

(iv) its activities in the Republic of South Africa and Namibia are deemed by the SBI to be especially egregious for other reasons.

(b) Phase Two, to be completed by August 3, 1986, will cover equity securities of those businesses covered by Section 1 of this resolution which, having signed the Sullivan Principles, as amended from time to time, or having exhibited evidence of a similar corporate policy promoting equal treatment and improving the lives of non-white workers in the Republic of South Africa and Namibia do not subject their behavior in the Republic of South Africa and/or Namibia to monitoring by Arthur D. Little, Inc. or another independent monitor satisfactory to the SBI.

(c) Phase Three, to be completed by August 3, 1987, will cover equity securities of those businesses covered by Section 1 of this resolution that did not obtain a performance rating in the most recent Arthur D. Little, Inc. report within the highest category of the Sullivan Principles rating system, or an equivalent thereof.

(d) Phase Four, to be completed not later than August 3, 1989, will cover all other equity securities covered by Section 1 of this resolution.

7. Notwithstanding the foregoing, the SBI may authorize the holding of investments covered by Phases Two, Three and Four of this resolution in companies engaging in corporate political, social, and economic activities, in addition to compliance with the Sullivan Principles, as amended from time to time, or a similar corporate policy that are deemed by the SBI to be of substantial assistance to efforts to eliminate Apartheid.

Evidence to the SBI of such corporate political, social and economic activities, which must go beyond workplace reform and include steps taken in substantial opposition to Apartheid, shall include the following:

(a) actions to persuade the government of the Republic of South Africa to eliminate Apartheid and to comply with the United Nations Security Council Resolution 435 on Namibia, including tangible opposition to the system of pass laws, influx controls and other fundamental building blocks of Apartheid;

(b) absence of participation and investment in the bantustan/homelands;

(c) formal recognition of and collective bargaining with black trade unions that are independent of government control;

(d) providing specific training and upgrading programs at the work-place and increasing the number of non-whites in technical, skilled, professional and management position, including positions in which non-whites supervise whites;

(e) payment of a reasonable, livable wage to all employees;

(f) substantial expenditures to raise the level of education and skills of the non-white majority population, including the provision of schooling for workers and children in the community:

(g) substantial expenditures to provide decent, affordable, permanent housing units to workers and their families on a non-discriminatory basis; and

(h) substantial expenditures to provide health and medical services to workers and their families on a non-discriminatory basis.

To be substantial, a company's expenditures should represent a proportion of profit after taxes or of revenue that is among the highest proportions spent by all United States companies in South Africa and Namibia and that is significantly more than the proportion spent by the company in other countries.

8. Notwithstanding the foregoing, during Phases Two and Three the SBI may also direct the divestment of equity securities in companies or institutions which have signed and observed the Sullivan Principles, as amended from time to time, or implemented a similar policy, but are nevertheless deeply involved in South Africa and/or Namibia in a way which lends support to Apartheid. Such deep involvement may be demonstrated by such activities as the expansion of operations in those countries or significant business with agencies or enterprises of the South African government other than agencies described in Phase One.

9. In furtherance of the principles set forth in the resolution, the SBI shall, pursuant to procedure set forth in section 12 of this resolution, seek out and persuade other shareholders to act in a concerted manner to change corporate political, social and economic activities in the Republic of South Africa and Namibia. The SBI, in conjunction with its staff, shall

(a) during Phase One, (i) notify issuers who have signed the Sullivan Principles, as amended from time to time, or never exhibited evidence of a similar corporate policy promoting equal treatment and improving the lives of non-white workers in the Republic of South Africa and Namibia of the proposals for action by the stockholders of such issuers requiring such issuers to subscribe to the Sullivan Principles, as amended from time to time, (ii) to submit such proposals to such issuers, and (iii) to supply supporting statements for such proposals for inclusion in the issuers' proxy statements;

(b) during Phase Two, (i) notify, issuers who have signed the Sullivan Principles, as amended from time to time, or have exhibited evidence of a similar corporate policy promoting equal treatment and improving the lives of non-white workers in the Republic of South Africa and Namibia but have not subjected their behavior to monitoring by Arthur D. Little, Inc. or another independent monitor satisfactory to the SBI of its intention to present proposals for action by the stockholders to require such issuers to subject themselves to such monitoring (ii) to submit such proposals to such issuers, and (iii) to supply supporting statements for such proposals for inclusion in the issuers' proxy statements;

(c) during Phase Three, (i) notify issuers who have not obtained a performance rating within the highest category of the Sullivan Principles, as amended from time to time, rating from Arthur D. Little, Inc. or an equivalent rating from another independent monitor satisfactory to the SBI of its intention to present proposals for action by the stockholders to require such issuers to modify their behavior in order to obtain such a performance rating, (ii) to submit such proposals to such issuers, and (iii) to submit such proposals for inclusion in the issuers' proxy statements;

(d) during all phases of the divestiture, the SBI shall act in these and other ways to persuade corporations to continually improve their corporate political, social and economic activities in the Republic of South Africa and/or Namibia consistent with the resolution; and

(e) from the date of this resolution, vote the shares held "For" all management or stockholder proposals consistent with clauses (a), (b), (c), and (d) of this section.

10. The SBI directs its staff, upon adoption of this resolution, to write to the companies and institutions identified in Sections 2 and 3 of this resolution to inform them of the adoption of this resolution and its provisions, to give them notice of the actions they should take in order to avoid divestiture, and to provide them an opportunity to describe any actions they may be taking to work for peaceful fundamental change in the Republic of South Africa and Namibia; and further directs that prior to implementing Phases Two, Three and Four of the divestiture program, the SBI staff again communicate with such companies and institutions to provide them an opportunity to describe any changes that have been made in their operations and policies with respect to the Republic of South Africa and Namibia.

11. The SBI shall seek financial and legal advice concerning the divestiture program set forth for consideration in this resolution. Before each stage of the divestiture program, the SBI shall seek advice from financial experts concerning the effect of proposed divestiture program shall be implemented so as to be consistent with the advice received from the SBI's financial and legal advisors.

12. To advise and assist it in implementation of this resolution, the SBI hereby authorizes the formation of an Advisory Task Force on Divestment composed of a representative selected by each member of the SBI and at least one representative from the Minnesota corporate community, one representative from a Minnesota public employee labor group and one representative from a public employee retirement group.

13. To assist in implementation of section eight of this resolution, the SBI directs its Executive Director to obtain the consulting services of a representative from the Interfaith Center on Corporate Responsibility.

14. This resolution shall take effect immediately.

Presented this 2nd day of October, 1985.

SHAREHOLDER ACTIVITIES

As a stockholder, the State Board of Investment is entitled to participate in corporate annual meetings, through direct attendance or casting its votes by proxy. Through proxy voting, the Board directs company representatives to vote its shares in a particular way on resolutions under consideration at annual meetings. Resolutions prepared at annual meetings range from routine issues, such as those involving the election of corporate directors and ratification of auditors, to non-routine items involving such matters as merger proposals and corporate social responsibility issues. In effect, as a shareholder the State Board of Investment can participate in shaping corporate policies and practices.

All non-routine proxy matters are reviewed by a committee of the State Board of Investment and voted in accordance with the SBI's statement of investment responsibility, which states, in part:

> "...The Investment Board recognizes that when performing their duty of investing the trust funds (pension and other funds) for which they are custodian, their primary responsibility is the prudent and responsible investment of the assets of the funds for the economic benefit of the beneficiaries of the funds...
>
> ...Consistent with prudent and responsible investment policy, the Investment Board shall not knowingly invest or maintain holdings in those corporations which are in flagrant violation of the law or in stubborn disregard of the social welfare of the society, or do not recognize environmental responsibilities in their corporate actions, and are not taking reasonable steps to overcome the situations..."

FISCAL YEAR 1986
STATISTICAL DATA APPENDIX

EXTERNAL MANAGER PHILOSOPHIES

ALTERNATIVE EQUITY INVESTMENTS

MANAGER PORTFOLIO STATISTICS

MANAGER PERFORMANCE SUMMARIES

TIME-WEIGHTED RATE OF RETURN

COMMISSIONS DATA

STATISTICAL DATA APPENDIX

EXTERNAL COMMON STOCK MANAGERS

FRED ALGER MANAGEMENT INC.

Fred Alger searches for companies expected to experience above-consensus earnings gains. These earnings gains may be either cyclical or secular. The firm focuses on two types of companies. First, companies whose products are expected to produce high consistent unit volume growth rates. Second, companies undergoing a positive life cycle change not yet fully recognized by the market. The proportion of the total portfolio invested in these two types of companies varies over time. On average, however, the high unit growth companies tend to dominate the total portfolio. Fred Alger is not an active market timer, usually maintaining a fully invested position.

ALLIANCE CAPITAL MANAGEMENT CORP.

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

BMI CAPITAL CORP.

BMI's investment approach focuses on companies expected to exhibit strong sustained earnings gains. BMI attempts to identify two types of "growth" companies: first, misperceived companies that are in the process of undergoing dynamic changes that will cause them to produce materially higher earnings over the near-term; and second, small-to-medium sized companies that exhibit the potential for rapid future earnings growth. The weighting of the two types of growth companies within the firm's portfolio will vary over time depending upon economic and financial conditions. Generally, however, the misperceived companies will make up the majority of the portfolio. On the other hand, the smaller high growth companies tend to dominate the portfolio's risk characteristics. The firm concentrates almost exclusively on stock selection, only rarely raising cash to significant levels.

BEUTEL, GOODMAN CAPITAL MANAGEMENT, LTD.

Beutel Goodman searches for companies whose stock prices are low in comparison to estimated tangible book value or companies whose P/E's are low in relation to earnings quality and expected earnings growth. This "value" investment approach is contrarian and defensive by nature, exhibiting less volatility than investment styles focusing on growing earnings. Beutel Goodman is not an active market timer and is almost always fully invested.

FORSTMANN LEFF ASSOCIATES

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

HELLMAN JORDAN MANAGEMENT CO.

Hellman Jordan is a "rotational" manager. Its cyclical and secular economic forecasts drive its asset mix and industry sector selections. The firm's primary focus is asset allocation, although it will invest in a wide range of industries over a market cycle. The firm tends to purchase liquid, large capitalization stocks. Hellman Jordan will make sudden and significant asset mix shifts over a market cycle.

IDS ADVISORY

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

INVESTMENT ADVISERS

Investment Advisers is a "rotational" manager. Its macroeconomic forecasts drive its investment decision-making. The firm emphasizes market timing and sector weighting decisions. Investment Advisers will invest in a wide range of industries over a market cycle. It tends to hold liquid, medium to large capitalization stocks. The firm is an active market timer, willing to make gradual but significant asset mix shifts over a market cycle.

LIEBER & COMPANY

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

WADDELL & REED

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

PEREGRINE CAPITAL

Peregrine is a contrarian investor searching for poorly performing stocks that have been "oversold" by the market. The firm expects that the prices of these stocks will rebound as the market's "emotional excesses" come to be recognized. The firm is very price sensitive. As a result it is an active trader, buying stocks as their performance relative to the market declines and selling stocks as relative performance rises. Peregrine tends to hold small positions in a large number of stocks, avoiding significant bets on individual issues. The firm is a moderate market timer, alternating its cash position incrementally around a moderately low cash position.

WILSHIRE ASSOCIATES

The index fund managed by Wilshire Associates is a well-diversified portfolio of common stocks designed to match the rate of return performance of a predetermined stock market index. The index fund utilized by the SBI tracks the Wilshire 5000, a broad-based equity market indicator composed of the common stocks of all U.S.-domiciled corporations for which daily prices are available. In effect, the Wilshire 5000 represents virtually the entire domestic common stock market.

EXTERNAL BOND MANAGERS

INVESTMENT ADVISERS, INC.

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

LEHMAN MANAGEMENT CO.

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

MILLER, ANDERSON AND SHERRERD

Miller Anderson focuses its investments in misunderstood or under-researched classes of securities. Over the years this approach has led the firm to emphasize mortgage-backed securities in its portfolios. Based on its economic and interest rate outlook, the firm establishes a desired maturity level for its portfolios. This decision is instituted primarily through the selection of specific types of mortgage securities that have prepayment expectations consistent with the portfolio's desired maturity. The firm will also move in and out of cash, but generally only gradually over an interest rate cycle and never taking extremely high cash positions. Total portfolio maturity is always kept within an intermediate three-to-seven year duration band. Unlike many other firms that also invest in mortgage securities, Miller Anderson intensively researches and, even in some cases manages, the mortgage pools in which it invests.

MORGAN STANLEY ASSET MANAGEMENT

Morgan Stanley takes a very conservative approach to fixed income investing, emphasizing the preservation of capital through the generation of consistent real returns. This philosophy has led the firm to maintain a vast majority of its portfolio in short to intermediate maturity, high quality (A or better) securities. Large positions in maturities longer than ten years are held only as temporary trading opportunities. These positions are increased or reduced gradually as the firm's expectations of the cyclical level of interest rates changes. Issue selection is of secondary importance to maturity decisions. Rather, given its maturity decisions, the firm prefers to make sizable investments in specific areas of the market where it believes persistent misvaluations are present.

PEREGRINE CAPITAL MANAGEMENT, INC. (Norwest Bank)

Peregrine Capital stresses consistency of fixed income portfolio relative returns. To accomplish this goal, the firm maintains a portfolio of high quality, liquid securities and a balance of maturity levels avoiding extreme exposures on either the long or short end. Further, Peregrine will make only gradual moves between maturities over an interest rate cycle. The firm also concentrates on exploring misperceived fixed income securities, which has led the firm to make extensive use of mortgage-backed securities and floating rate notes.

WESTERN ASSET MANAGEMENT

Western recognizes the importance of interest rates changes on fixed income portfolio returns. However, the firm believes that successful interest rate forecasting, particularly short-run forecasting, is extremely difficult to accomplish consistently. Thus, the firm attempts to keep portfolio maturity in a narrow band near that of the market, making only relatively small, gradual shifts over an interest rate cycle. It prefers to add value primarily through appropriate sector decisions. Based on its economic analysis, Western will significantly overweight particular sectors, shifting these weights as economic expectations warrant. Issue selection, like its maturity decisions, are of secondary importance to the firm.

ALTERNATIVE EQUITY INVESTMENT MANAGERS

RESA

Real Estate Separate Account (RESA) is an open-end commingled real estate fund managed by the Aetna Life and Casualty Company of Hartford, Conn. The fund was formed in January, 1978. The fund has no termination date; investors have the option to withdraw all or a portion of their investment. RESA invests primarily in existing equity real estate. Investments are diversified by location and type of property. On-site management of properties is contracted to outside firms or conducted by a joint venture partner.

SEPARATE ACCOUNT #8

Separate Account #8 was formed in August 1973 by the New York-based Equitable Real Estate Group, Inc. The account is an open-end commingled real estate fund. The fund has no termination date; investors retain the option to withdraw all or a portion of their investment. The fund makes equity investments in existing real estate. The fund's portfolio is diversified by location and property type. Management of the fund's properties is contracted to outside firms or is conducted by joint venture partners.

PRISA I

PRISA I is an open-end commingled real estate fund. One of the largest and oldest of the open-end funds, PRISA I was formed in July 1970 by the Prudential Investment Management Corporation of New Jersey. PRISA's real estate portfolio consists primarily of equity investments in existing properties. Investments are diversified by both the type and location of properties. Prudential contracts with outside firms for the on-site management of its properties or retains joint venture partners as property managers. The fund has no termination date. Investors have the option quarterly to withdraw a portion or all of their investment.

RREEF USA III

RREEF USA III is managed by the Rosenberg Real Estate Equity Funds. It has a twelve year term. Typically, the trust purchases 100% of the equity of its properties with cash. The trust generally does not utilize leverage or participating mortgages. Properties are diversified by location and type. RREEF's in-house staff manages the trust's real estate properties. The firm's primary office is located in San Francisco.

HAC GROUP TRUST I

HAC Group Trust I was formed in May 1984 and has a term of twelve years. HAC Group Trust I is managed by the Heitman Advisory

Group, which is based in Chicago. The majority of the trust investments are equity real estate. The real estate portfolio is diversified by the type and location of the properties. Centre Properties, Ltd., an affiliate of Heitman, manages the trust's wholly-owned properties. Properties that are partially owned by the trust may be managed by joint venture partners.

HAC GROUP TRUST II

HAC group Trust II was formed in October, 1985. The trust is managed by Heitman Advisory Group. Its terms and strategy are identical to those of HAC Group Trust I.

TCW REALTY FUND III

TCW Realty Fund III was formed in July 1985 and has a term of ten years. Management of the fund is a joint venture between Trust Company of the West and Westmark Real Estate Investment Services of Los Angeles. The fund managers utilize specialty investment vehicles such as convertible and participating mortgages to enhance real estate returns. Investments are diversified by location and type. Management of portfolio properties typically is conducted by local property management firms. Although the SBI committed to the fund at its June, 1985 meeting, funding did not take place until July 1986.

STATE STREET REAL ESTATE FUND III

State Street Real Estate Fund III was formed in August 1985. The fund has a term of fifteen years. It is managed by the State Street Bank and Trust Company of Boston. State Street Bank has retained Aldrich, Eastman and Waltch as the Fund's advisor. The fund's special orientation is the use of creative investment vehicles such as convertible and participating mortgages to maximize real estate returns. The real estate portfolio is diversified by location and property type. On-site property management typically is contracted to outside firms or conducted by joint venture partners.

STATE STREET REAL ESTATE FUND IV

State Street Real Estate Fund IV was formed in June 1986. State Street Bank and Trust Company serves as the Fund's manager and Alrich, Eastman and Waltch of Boston is the Fund's advisor. The Fund will be managed in essentially the same manner as State Street Fund III.

NORTHWEST VENTURE PARTNERS I

Northwest Venture Partners I was formed in January 1984, has a term of ten years. Norwest Venture Capital Management, a wholly owned subsidiary of Norwest Corp., is the general partner and manager of the partnership. Norwest Venture Capital also manages the Norwest Growth Fund, an SBIC, and Norwest Equity Capital, a leveraged buyout fund. Norwest Venture Partners' investment focus is on high technology companies in the early stages of corporate development. However, the partnership's portfolio also includes investments in expansion stage firms and is diversified by the location and industry type of its portfolio companies.

KKR 1984 LBO FUND

KKR's 1984 Leveraged Buyout Fund was formed in March 1984 and has a term of twelve years. It is the third leveraged buyout fund to be managed by Kohlberg, Kravis, Roberts and Co., which operates offices in New York and San Francisco. The 1984 fund invests in large management leveraged buyouts. The partnership's portfolio companies are mature, low technology companies with very diversified operations.

KKR 1986 LBO FUND

KKR's 1986 Leveraged Buyout Fund was organized in December, 1985. The Fund's investment strategy and terms are essentially identical to those of KKR's 1984 Fund.

SUMMIT VENTURES

Summit Ventures has a ten year term. It was formed in December 1984 by Stamps, Woodsum & Co., the managing general partners of the fund and Shearson/American Express. Stamps and Woodsum focus on profitable, expansion stage firms that have not yet received any venture backing. The majority of the partnership's investments are in high tech firms. Investments are diversified by location and industry type.

FIRST CENTURY III

First Century III was formed in December 1984, and has a term of ten years. The general partner and manager of the partnership is Smith Barney Venture Corp., a subsidiary of Smith Barney Harris Upham and Co. Smith Barney Venture has offices in New York and San Francisco. This is the third fund formed by the firm since 1972. The partnership invests primarily in early stage, high technology companies. Investments are diversified by location and industry group.

DSV PARTNERS IV

DSV Partners IV was formed in April, 1985. It has a twelve year term. DSV Partners IV is the fourth venture fund to be managed by DSV Management Ltd since the firm's inception in 1968. The firm's primary office is located in Princeton, New Jersey. However, the firm will open a California office in 1986. DSV Partners' investment emphasis is on portfolio companies in the start up and early stages of corporate development. The geographic focus of the partnership is on East and West Coast firms. Investments are diversified by industry type.

INMAN & BOWAN

Inman & Bowan was formed in June, 1985. Its investment focus is early-stage, high-technology firms. The fund will emphasize investments in California, where the general partner, Inman & Bowman Management, is based. However, Inman and Bowman work closely with Rainier Venture Partners, a small Washington venture firm. They expect to make several co-investments with Rainier in the Pacific Northwest. The partnership has a ten year term.

MATRIX PARTNERS II

Matrix Partners II was formed in August, 1985 and has a term of ten years. The fund's investment emphasis is on high-technology firms in the early and expansion stages of corporate development. However, for diversification the Fund's portfolio will include a sizable component of non-technology firms. The portfolio may include several small leveraged buyout investments as well. The fund is managed by five experienced general partners. The partners have offices in Boston, San Jose, and San Francisco.

ALLIED VENTURE PARTNERSHIP

Allied Venture Partnership was formed in September 1985 and has a ten year term. Based in Washington D.C., the fund will focus on later stage, low technology companies located in the Southeastern and Eastern U.S. Most investments will be made in syndication with Allied Capital, a large publicly-owned venture capital corporation formed in 1958.

SUPERIOR VENTURE PARTNERS

Superior Ventures is a Minnesota-based venture capital limited partnership. It was formed in June 1986 and has an eleven year term. Superior Ventures is managed by IAI Venture Capital Group, a subsidiary of Investment Advisers, Inc. Up to 15% of the fund will be invested in other Minnesota-based venture capital limited partnerships. The remainder of the fund will be invested in operating companies located within the state.

T. ROWE PRICE

T. Rowe Price, a Baltimore-based money management firm, was selected to manage stock distributions from the Board's venture capital limited partnerships. T. Rowe Price has extensive research capabilities in the small capitalization company area. In addition, the firm has a large trading staff with particular expertise in the trading of small capital, illiquid stocks.

AMGO I

AMGO I was formed in July 1981 and has a term of twenty years. The general partner and manager of the fund is First Reserve Corp. The general partner's long-term investment strategy is to create a diversified portfolio of oil and gas investments for the fund. The portfolio is diversified across four dimensions: location, geological structure, investment type, and operating company.

AMGO II

Formed in December 1982, Amgo II has a nineteen year term. First Reserve Corp. of New York is the general partner and manager of both Amgo I and Amgo II. First Reserve's strategy for Amgo II is similar to that of Amgo I. Amgo II's portfolio is diversified by location, geological structure, investment type, and operating company.

APACHE CORP.

The Apache Corp. 10% Equipment Financing Notes are a $150 million private placement to finance Apache's portion of production facility expenditures. The expenditures were made under the terms of a series of offshore joint ventures in the Gulf of Mexico. The joint ventures were 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. Apache Corp. is based in Minneapolis.

APC 1985

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.

ALTERNATIVE EQUITY INVESTMENTS

FUND	COMMITMENT (millions)	FUNDED (millions)	INCEPTION DATE	FUND SIZE (millions)
REAL ESTATE:				
Equitable	$ 40.0	$ 40.0	10/81	$3124.0
Aetna	40.0	40.0	4/82	1664.0
Prudential	40.0	40.0	9/81	5316.0
RREEF	75.0	47.0	4/84	773.0
Heitman I	20.0	20.0	6/84	113.0
Heitman II	30.0	30.0	10/85	238.0
TCW I	40.0	40.0	7/85	216.0
State Street III	20.0	20.0	7/85	103.0
State Street IV	20.0	0.0	7/86	100.0
Total:	$325.0	$276.0		
Target:	($450 Million or 10% of Basic Retirement Funds)			
VENTURE CAPITAL:				
Norwest	$ 10.0	$ 7.0	1/84	$ 60.0
KKR I	25.0	25.0	3/84	1000.0
KKR II	50.0	7.0	12/85	2000.0
Summit	10.0	7.5	12/84	93.0
First Century	10.0	2.5	12/84	100.0
DSV IV	10.0	7.0	4/85	60.0
Matrix	10.0	4.0	7/85	70.0
Inman/Bowman	7.5	2.0	6/85	44.0
Allied	5.0	1.6	7/85	40.0
Superior Venture	6.0	1.5	6/86	35.0
Total:	$143.5	$ 65.1		
Target:	($112.5 Million or 2.5% of Basic Retirement Funds)			
RESOURCE:				
Amgo I	$ 15.0	$ 15.0	7/81	$ 144.0
Amgo II	7.0	7.0	2/83	36.0
Apache I	22.5	0.5	5/84	150.0
Apache II	23.0	22.4	10/85	180.0
Total:	$ 67.5	$ 42.5		
Target:	($112.5 Million or 2.5% of Basic Retirement Funds)			

EQUITY MANAGER PORTFOLIO STATISTICS GLOSSARY

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

The first five portfolio characteristics listed in the glossary are presented in the Quarterly Investment Review and Appendix on an absolute basis. The remaining portfolio statistics are reported relative to the stock market. The purpose of presenting these statistics in a relative fashion is to "normalize" them, or remove the impact of market-wide changes on the characteristics of a manager's portfolio. In calculating the relative values, the stock market is represented by the 1000 largest capitalization companies in the Wilshire 5000. The managers' portfolio characteristics are reported in standard deviation units relative to the average or mean of these 1000 companies. Thus, a positive (negative) value for a portfolio characteristic indicates a value higher (lower) than the market average.

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

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

Equity Allocation - percent of the manager's total portfolio invested in common and preferred stocks and convertible securities.

Diversification (R2) - extent to which a manager's equity holdings statistically resemble the stock market. Low (high) diversification portfolios will experience returns which are not well (are well) correlated with those of the market. By definition, the market has a diversification measure of 1.0. The less a portfolio is diversified, the lower will be its diversification measure (referred to as R-squared). The SBI's managers are required, over the long-term, to hold portfolios with diversification levels less than .85.

Market Volatility (Equity Beta) - degree to which the returns on the manager's stock portfolio are sensitive to movements in the stock market's return. By definition the market has a market volatility measure (referred to as beta) of 1.0. Portfolios with values greater (less) than 1.0 have above (below) average sensitivity to market moves. The SBI's managers are required, over the long-term to hold portfolios with market volatility levels above 1.10. This measure does not include the impact of cash holdings on total portfolio volatility.

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

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

12-Month Relative Return (REL RET) - the return on the stocks currently in the manager's portfolio over the last twelve months less the return on the S&P 500.

Price-to-Book Ratio (P/B) - the market value of the manager's portfolio divided by the latest available annual book value.

5 Year Earnings Growth (5 YR. EARN.) - the annualized growth of the average earnings per share of the manager's portfolio over the latest five fiscal years.

Size and Immaturity (SIZE)	- Risk related to the size and maturity of the companies held in the portfolio. The smaller and younger the companies, the more risky is the portfolio. Items such as total assets, market capitalization, gross plant/book value ratio, and company age make up this measure.
Growth (GROW)	- risk related to the growth orientation of companies owned by the manager. The more growth-oriented are the companies, the riskier is the portfolio. Items such as dividend yield, E/P ratio, and growth in total assets make up this measure.
Earnings-to-Price Ratio (E/P)	- the weighted average trailing four quarter earnings per share of the manager's common stock portfolio divided by the weighted average price per share of the manager's common stock portfolio.
Dividend Yield (YIELD)	- indicated annual dividend of the manager's stock portfolio divided by the portfolio market value.
Financial Leverage (FINL)	- risk related to the extent to which companies held in the portfolio have used debt to finance their operations. The more leveraged are the companies, the riskier is the portfolio. Items such as debt/asset ratio, current asset/current liability ratio, and uncovered fixed charges make up this ratio.
Industry Sector Overweightings	- those sectors of the economy in which the manager has invested a significantly larger percentage of the portfolio than is represented by the stock market.
Industry Sector Underweightings	- those sectors of the economy in which the manager has invested a significantly smaller percentage of the portfolio than is represented by the stock market.

EXTERNAL EQUITY MANAGERS
PORTFOLIO STATISTICS RELATIVE TO BENCHMARK PORTFOLIOS

1986 FISCAL YEAR END PORTFOLIO STATISTICS

MANAGER		# OF STOCKS	EQUITY ALLOC.	MKT. VOLTY	DIVER.	YIELD	E/P	REL. RET.	P/B	5 YR EARN	MVAR	EVAR	SIZE	GROW	FINL
GROWTH MANAGERS															
Fred Alger	(A)	39	94	1.31	0.92	-0.56	-0.04	0.74	0.40	0.09	0.88	0.35	0.02	0.39	-0.0
	(B)	720	95	1.20	N.A.	-0.38	0.00	-0.05	0.42	0.49	0.47	0.03	0.29	0.49	-0.12
Alliance	(A)	37	98	1.21	0.89	-0.50	-0.02	0.30	0.75	0.48	0.88	0.35	-0.19	0.68	-0.26
	(B)	367	95	1.27	N.A.	-0.48	-0.07	-0.18	0.22	0.46	0.64	0.06	0.61	0.64	-0.06
SMALL GROWTH MANAGERS															
BMI Capital	(A)	31	95	1.37	0.90	-0.84	-0.08	0.23	0.23	-0.14	1.10	0.31	1.60	0.95	-0.17
	(B)	806	95	1.33	N.A.	-0.59	-0.07	-0.09	0.43	0.38	0.85	0.18	1.34	0.86	-0.20
Lieber & Co.	(A)	110	99	1.32	0.90	-0.36	0.14	0.12	0.05	0.15	0.59	0.12	1.50	0.55	-0.33
	(B)	1,286	95	1.31	N.A.	-0.46	-0.01	-0.21	0.07	0.19	0.65	0.14	1.77	0.81	-0.32
Waddell & Reed	(A)	67	79	1.28	0.93	-0.35	-0.02	0.28	0.02	-0.04	0.74	0.08	0.30	0.23	-0.02
	(B)	N.A.	80	1.35	N.A.	0.06	0.20	-0.36	-0.21	0.19	0.24	-0.06	1.15	0.29	0.01
ROTATIONAL MANAGERS															
Forstmann Leff	(A)	57	85	1.49	0.88	-0.72	-0.04	0.29	0.37	0.35	1.26	0.51	0.87	0.93	-0.25
	(B)	1,455	70	1.22	N.A.	-0.16	0.15	-0.21	0.08	0.15	0.46	0.06	0.66	0.46	-0.01
Hellman Jordan	(A)	34	99	1.34	0.89	-0.57	-0.02	0.12	0.16	-0.29	0.80	0.15	-0.07	0.95	0.00
	(B)	N.A.	100	1.09	N.A.	0.16	0.09	N.A.	-0.05	0.03	0.13	-0.02	0.04	0.07	-0.03
IDS	(A)	41	91	1.19	0.93	-0.23	0.06	0.54	0.46	0.25	0.54	0.17	0.09	0.22	-0.08
	(B)	N.A.	100	1.09	N.A.	0.16	0.09	N.A.	-0.05	0.03	0.13	-0.02	0.04	0.07	-0.03
IAI	(A)	35	82	1.17	0.94	-0.44	-0.16	0.40	0.28	0.06	0.55	-0.04	-0.03	0.28	-0.10
	(B)	N.A.	100	1.09	N.A.	0.16	0.09	N.A.	-0.05	0.03	0.13	-0.02	0.04	0.07	-0.03
VALUE MANAGERS															
Beutel Goodman	(A)	22	90	1.20	0.89	0.16	-0.41	-0.79	-0.67	-0.28	0.22	0.54	0.23	0.07	0.28
	(B)	412	95	1.18	N.A.	0.04	0.04	-0.56	-0.38	-0.15	0.17	0.13	0.99	0.04	0.10
Peregrine Cap.	(A)	202	90	1.18	0.79	0.56	-0.06	-1.28	-0.75	-0.52	0.09	0.27	0.62	0.17	0.22
	(B)	1,206	90	1.13	N.A.	0.17	0.05	-0.69	-0.49	-0.17	0.09	0.13	0.76	0.17	0.05
Composite External Managers		554	91	1.25	0.96	-0.26	-0.02	-0.01	0.05	0.01	0.58	0.19	0.24	0.43	-0.01
Index Fund Manager		1,344	99	1.09	0.97	0.16	0.09	-0.26	-0.05	0.03	0.13	-0.02	0.04	0.07	-0.03
Composite All Basic Managers		1,495	96	1.14	0.97	0.03	0.06	-0.08	-0.02	0.02	0.26	0.04	0.10	0.18	-0.03

(A) - Actual Portfolio
(B) - Benchmark Portfolio

EXTERNAL EQUITY MANAGERS

SECTOR WEIGHTINGS RELATIVE TO BENCHMARK PORTFOLIOS

1986 FISCAL YEAR END SECTOR WEIGHTINGS

MANAGER		CAPITAL GOODS	CONSUMER DURABLES	CONSUMER NONDURABLES	ENERGY	FINANCIAL	MAT. & SERVICES	TECHNOLOGY	TRANS-PORTATION	UTILITIES
GROWTH MANAGERS										
Fred Alger	(A)	1.9%	7.5%	52.9%	---%	11.6%	6.2%	15.8%	4.0%	---%
	(B)	2.9	2.0	42.2	0.6	9.2	16.7	21.8	3.7	0.9
Alliance	(A)	2.3	3.6	49.1	---	28.1	---	9.8	7.1	---
	(B)	4.2	2.4	33.0	0.9	17.0	14.5	23.7	4.2	---
SMALL GROWTH MANAGERS										
BMI Capital	(A)	8.5	6.4	43.4	---	19.8	2.9	19.1	---	---
	(B)	5.3	4.6	37.7	1.6	6.9	17.8	21.4	4.2	0.5
Lieber & Company	(A)	1.7	7.3	22.4	3.1	41.8	10.3	7.5	3.7	2.1
	(B)	6.4	5.5	26.2	1.9	20.3	15.5	19.0	3.0	2.1
Waddell & Reed	(A)	4.4	7.8	26.0	0.4	20.7	21.7	12.4	6.6	---
	(B)	5.1	3.6	30.0	4.6	14.9	11.2	9.3	2.9	18.4
ROTATIONAL MANAGERS										
Forstmann Leff	(A)	2.6	6.6	25.2	---	22.4	13.2	23.7	5.2	1.1
	(B)	3.8	3.6	30.0	4.3	17.4	14.4	13.5	4.1	8.9
Hellman Jordan	(A)	---	9.3	24.8	---	32.7	10.7	20.1	2.4	---
	(B)	4.5	4.0	28.8	7.8	14.0	12.4	12.6	3.0	12.9
IDS	(A)	---	---	42.4	3.1	16.4	15.8	6.5	5.0	10.8
	(B)	4.5	4.0	28.8	7.8	14.0	12.4	12.6	3.0	12.9
Investment Advisers	(A)	8.2	---	33.0	1.0	9.6	26.5	13.2	8.6	---
	(B)	4.5	4.0	28.8	7.8	14.0	12.4	12.6	3.0	12.9
VALUE MANAGERS										
Beutel Goodman	(A)	3.4	5.3	9.3	4.0	20.3	23.3	19.0	11.0	4.4
	(B)	8.8	4.9	25.5	8.3	13.1	22.1	11.4	5.8	---
Peregrine Capital	(A)	8.0	6.7	9.6	15.2	8.1	15.7	13.6	5.0	18.1
	(B)	8.1	3.4	17.8	9.8	13.5	15.1	13.4	4.8	14.2
Composite External Managers		3.2	5.0	30.5	4.7	19.2	12.0	14.4	5.6	5.3
Index Fund Manager		4.7	4.2	28.8	7.8	13.5	11.7	12.9	3.0	13.4
Composite All Basic Managers		4.2	4.5	29.3	6.9	15.2	11.8	13.3	3.8	11.0
Wilshire 5000		4.5	4.0	28.8	7.8	14.0	12.4	12.6	3.0	12.9

(A) - Actual Portfolio
(B) - Benchmark Portfolio

EXTERNAL EQUITY MANAGERS

PERFORMANCE RELATIVE TO BENCHMARK PORTFOLIOS

Managers	Year Ending 6/30/86 Actual Portfolio	Normal Portfolio
Fred Alger	47.2%	35.5%
Alliance Capital	43.9	32.1
Beutel Goodman	16.3	31.8
BMI Capital	36.7	35.7
Forstmann Leff	44.1	26.0
Hellman Jordan	29.5	35.3
IDS	41.9	35.3
Investment Advisers	29.3	35.3
Lieber & Company	42.1	37.8
Peregrine Capital	20.1	27.3
Waddell & Reed	28.5	28.3
Internal Manager	18.6	32.7
Total - External Active Managers	32.4	N.A.
Wilshire Associates (Index Fund)	34.4	N.A.

Performance Standards		
Wilshire 5000	35.3	N.A.
Inflation	1.7	N.A.

EXTERNAL EQUITY MANAGERS

PORTFOLIO STATISTICS HISTORICAL SUMMARY

MANAGER NAME	DATE	QTR. PORT. T/O	EQUITY ALLOC.	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
AVG. EXT. MANAGERS	6/30/86	25	91	0.90	1.28	0.70	0.26	0.09	0.12	0.01	0.45	0.49	-0.06	-0.36	-0.07
	3/31/86	29	92	0.88	1.25	0.66	0.30	-0.04	0.07	0.02	0.41	0.41	-0.53	-0.27	0.08
	12/31/85	29	90	0.89	1.23	0.55	0.29	0.03	0.04	-0.02	0.43	0.33	-0.34	-0.23	0.14
	9/30/85	27	82	0.83	1.23	0.53	0.27	-0.29	0.04	0.07	0.41	0.31	-0.15	-0.25	0.07
	6/30/85	24	90	0.83	1.23	0.55	0.14	-0.23	0.07	0.20	0.46	0.27	-0.07	-0.18	-0.02
	3/31/85	33	90	0.82	1.23	0.53	0.02	-0.26	0.06	0.21	0.54	0.13	-0.01	-0.17	0.03
	12/31/84	24	86	0.81	1.25	0.56	0.08	-0.13	0.17	0.03	0.73	0.23	-0.03	-0.32	0.05
	9/30/84	33	84	0.82	1.26	0.56	0.09	-0.10	0.17	0.05	0.72	0.22	-0.08	-0.28	0.04
	6/30/84	27	81	0.81	1.29	0.36	0.04	-0.25	0.13	0.01	0.79	0.19	-0.02	-0.29	0.14
	3/31/84	25	83	0.82	1.25	0.38	0.03	-0.10	0.13	0.01	0.60	0.20	-0.15	-0.26	0.08
	12/31/83	36	84	0.80	1.23	0.44	0.07	-0.03	0.07	-0.19	0.80	0.26	-0.31	-0.27	0.06
	9/30/83	32	85	0.82	1.29	0.64	0.07	0.32	0.21	-0.12	0.89	0.34	-0.40	-0.36	-0.02
	6/30/83	27	85	0.81	1.29	0.68	0.00	0.30	0.11	-0.10	0.75	0.35	-0.44	-0.34	0.00
FRED ALGER	6/30/86	21	94	0.92	1.31	0.88	0.35	0.74	0.40	0.09	0.02	0.39	-0.04	-0.56	-0.01
	3/31/86	40	98	0.91	1.29	0.94	0.48	0.31	0.23	0.12	-0.17	0.45	-0.40	-0.54	0.19
	12/31/85	28	95	0.90	1.25	0.69	0.45	0.11	0.13	0.25	0.14	0.19	0.02	-0.45	0.25
	9/30/85	28	95	0.83	1.23	0.64	0.33	-0.07	0.16	0.31	0.32	0.33	-0.17	-0.42	0.08
	6/30/85	41	92	0.79	1.23	0.77	0.39	-0.07	0.32	0.48	0.26	0.53	-0.05	-0.55	0.05
	3/31/85	36	96	0.85	1.27	0.84	0.24	0.03	0.39	0.69	0.05	0.38	-0.23	-0.64	0.08
	12/31/84	16	95	0.86	1.19	0.48	0.05	0.03	0.35	0.10	0.26	0.10	0.03	-0.47	-0.09
	9/30/84	20	94	0.86	1.22	0.44	0.14	0.10	0.34	0.00	0.42	-0.01	-0.04	-0.44	-0.08
	6/30/84	16	93	0.86	1.22	0.11	-0.01	0.06	0.06	-0.21	0.45	-0.13	-0.21	-0.31	0.07
	3/31/84	19	91	0.86	1.19	0.14	0.04	-0.13	0.08	-0.34	0.46	-0.12	-0.40	-0.32	-0.00
	12/31/83	23	95	0.88	1.18	0.38	0.08	0.26	-0.04	-0.37	0.31	-0.05	-0.50	-0.32	0.05
	9/30/83	27	91	0.88	1.24	0.75	0.22	0.44	0.20	-0.23	0.43	0.03	-0.46	-0.32	0.15
	6/30/83	8	94	0.88	1.33	1.29	0.30	0.51	0.23	-0.37	0.74	0.35	-0.76	-0.46	0.22

MANAGER NAME	DATE	QTR. PORT. T/O	EQUITY ALLOC.	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
ALLIANCE CAPITAL	6/30/86	11	98	0.89	1.21	0.88	0.35	0.30	0.75	0.48	-0.19	0.68	-0.02	-0.50	-0.26
	3/31/86	17	94	0.85	1.24	0.53	0.11	0.48	0.88	0.36	-0.10	0.57	-0.46	-0.49	0.09
	12/31/85	7	96	0.83	1.23	0.52	0.13	0.23	1.06	0.43	-0.14	0.56	-0.44	-0.54	0.00
	9/30/85	15	89	0.73	1.24	0.53	0.15	0.09	0.99	0.54	-0.02	0.64	-0.50	-0.61	-0.08
	6/30/85	7	95	0.76	1.21	0.52	0.03	0.04	0.96	0.66	0.08	0.68	-0.30	-0.56	-0.06
	3/31/85	10	96	0.76	1.19	0.48	-0.12	0.10	0.74	0.73	0.15	0.63	-0.27	-0.55	-0.20
	12/31/84	8	92	0.73	1.30	0.56	0.09	0.03	0.82	0.51	0.26	0.85	-0.29	-0.73	-0.15
	9/30/84	13	88	0.72	1.34	0.53	0.15	-0.02	0.72	0.52	0.33	0.83	-0.28	-0.65	-0.09
	6/30/84	8	92	0.73	1.39	0.46	0.13	-0.27	0.78	0.45	0.48	0.78	-0.40	-0.73	-0.04
	3/31/84	12	92	0.72	1.38	0.68	0.13	0.13	0.71	0.46	0.50	0.65	-0.47	-0.72	-0.04
	12/31/83	14	92	0.72	1.37	0.65	0.31	0.18	0.78	0.14	0.45	0.72	-0.50	-0.72	0.06
	9/30/83	22	87	0.75	1.41	1.02	0.21	0.45	0.44	0.29	0.43	0.60	-0.33	-0.67	0.00
	6/30/83	17	91	0.77	1.35	0.93	0.14	0.38	0.03	0.03	0.34	0.48	-0.72	-0.53	-0.04
BEUTEL GOODMAN	6/30/86	10	90	0.89	1.20	0.22	0.54	-0.79	-0.67	-0.28	0.23	0.07	-0.41	0.10	0.28
	3/31/86	22	87	0.85	1.15	0.37	0.64	-0.66	-0.64	-0.33	0.19	0.23	-0.94	0.06	0.12
	12/31/85	18	89	0.83	1.22	0.30	0.58	-0.58	-0.61	-0.74	0.63	0.13	-0.88	0.25	0.35
	9/30/85	5	99	0.81	1.26	0.47	0.47	-0.40	-0.32	-0.52	0.90	0.12	-0.73	0.09	0.26
	6/30/85	6	94	0.83	1.24	0.55	0.22	-0.27	-0.26	-0.64	0.96	0.27	-0.55	-0.02	0.37
	3/31/85	14	93	0.83	1.18	0.38	-0.25	-0.38	-0.25	-0.71	1.19	0.14	-0.43	0.06	0.24
	12/31/84	8	94	0.81	1.19	0.27	-0.15	-0.41	-0.42	-0.87	1.14	0.04	0.21	0.06	0.63
	9/30/84	10	93	0.81	1.21	0.31	-0.17	-0.10	-0.41	-0.81	1.28	0.10	0.23	0.08	0.59
	6/30/84	11	92	0.79	1.18	0.05	-0.29	0.19	-0.44	-0.89	1.32	0.07	0.02	-0.05	0.58
	3/31/84	12	98	0.79	1.16	0.16	-0.19	0.27	-0.41	-0.85	1.34	0.01	-0.42	-0.04	0.37
	12/31/83	15	95	0.74	1.08	0.21	-0.08	0.22	-0.42	-0.61	1.18	0.03	-0.72	0.05	0.24
	9/30/83	6	99	0.75	1.14	0.35	0.03	-0.17	-0.50	-0.75	1.16	0.04	-0.91	0.05	0.25
	6/30/83	7	79	0.75	1.07	0.49	-0.00	-0.41	-0.43	-0.39	0.92	0.11	-0.15	-0.02	0.34
BMI CAPITAL	6/30/86	20	95	0.90	1.37	1.10	0.31	0.23	0.23	-0.14	1.60	0.95	-0.08	-0.84	-0.17
	3/31/86	17	97	0.86	1.33	0.98	0.43	-0.13	0.37	0.03	1.48	0.96	-1.06	-0.59	0.08
	12/31/85	5	95	0.85	1.27	0.74	0.35	-0.30	0.22	0.13	1.14	0.59	-0.80	-0.40	-0.01
	9/30/85	28	28	0.72	1.40	0.89	0.32	-0.78	0.48	0.67	1.47	0.74	-0.42	-0.71	-0.25
	6/30/85	10	98	0.75	1.22	0.80	0.17	-0.52	0.80	1.06	1.42	0.63	-0.14	-0.56	-0.38
	3/31/85	2	99	0.55	1.26	0.84	0.10	-0.66	1.13	1.04	1.49	0.23	-0.20	-0.61	-0.33
	12/31/84	13	87	0.74	1.33	0.78	0.34	-0.20	1.05	0.56	1.41	0.11	-0.24	-0.57	-0.18
	9/30/84	29	82	0.75	1.33	0.78	0.17	-0.44	0.83	0.63	1.17	-0.05	0.01	-0.44	-0.23
	6/30/84	6	99	0.79	1.33	0.63	0.17	-0.37	0.67	0.32	1.51	0.22	-0.24	-0.48	-0.16
	3/31/84	18	95	0.80	1.32	0.77	0.20	-0.53	0.72	0.31	1.86	0.36	-0.40	-0.47	-0.14
	12/31/83	14	98	0.81	1.29	1.02	0.26	0.26	0.58	0.08	1.60	0.48	-0.52	-0.49	0.01
	9/30/83	19	99	0.81	1.34	1.04	0.20	0.54	0.64	0.09	1.66	0.50	-0.34	-0.48	0.01
	6/30/83	0	96	0.80	1.31	1.14	0.02	0.55	0.28	0.10	1.61	0.43	-0.25	-0.41	-0.07

MANAGER NAME	DATE	QTR. PORT. T/O	EQUITY ALLOC.	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
FORSTMANN-LEFF	6/30/86	71	85	0.88	1.49	1.26	0.51	0.29	0.37	0.35	0.87	0.93	-0.04	-0.72	-0.25
	3/31/86	83	89	0.88	1.37	0.91	0.35	0.16	0.10	-0.35	0.64	0.59	-0.77	-0.39	0.27
	12/31/85	78	88	0.91	1.35	0.94	0.36	0.48	0.06	-0.38	0.03	0.45	-0.44	-0.46	0.35
	9/30/85	108	70	0.88	1.27	0.64	0.24	0.13	0.10	-0.42	0.00	0.25	-0.48	-0.43	0.25
	6/30/85	27	77	0.89	1.22	0.83	0.17	0.16	0.15	0.08	-0.20	0.35	-0.07	-0.33	0.09
	3/31/85	55	69	0.89	1.19	0.67	0.07	-0.15	-0.04	0.13	-0.03	0.16	0.14	-0.18	0.02
	12/31/84	12	87	0.84	1.22	0.39	-0.06	-0.14	-0.07	-0.44	0.39	-0.06	-0.01	-0.10	0.08
	9/30/84	40	83	0.86	1.26	0.49	0.03	-0.20	-0.25	-0.43	0.25	-0.17	-0.23	-0.09	0.14
	6/30/84	31	54	0.81	1.26	0.14	0.01	-0.27	-0.21	-0.22	0.16	0.07	-0.08	-0.16	0.15
	3/31/84	34	71	0.82	1.17	0.13	-0.04	-0.11	-0.14	-0.21	0.17	0.05	-0.18	-0.10	0.15
	12/31/83	41	81	0.70	1.10	0.02	-0.11	-0.25	-0.03	-0.25	-0.12	-0.03	-0.15	-0.07	0.05
	9/30/83	46	83	0.72	1.14	0.10	-0.12	-0.09	0.09	-0.34	0.03	0.19	-0.45	-0.21	-0.12
	6/30/83	52	93	0.70	1.08	0.34	-0.22	-0.01	0.07	-0.04	0.03	0.11	-0.17	-0.22	-0.17
HELLMAN JORDAN	6/30/86	15	99	0.89	1.34	0.80	0.15	0.12	0.16	-0.29	-0.07	0.95	-0.02	-0.57	0.00
	3/31/86	35	97	0.88	1.26	0.79	0.34	0.26	0.06	0.19	-0.16	0.83	-0.71	-0.48	0.09
	12/31/85	36	95	0.93	1.14	0.32	0.23	-0.13	-0.17	0.04	-0.13	0.39	-0.22	-0.22	0.25
	9/30/85	36	96	0.89	1.07	0.26	0.09	-0.49	-0.29	-0.06	-0.54	0.03	0.02	0.00	0.27
	6/30/85	38	89	0.89	1.10	0.29	-0.04	-0.27	-0.21	-0.12	-0.47	-0.07	0.18	0.15	0.07
	3/31/85	52	81	0.88	1.13	0.28	-0.12	-0.20	-0.28	-0.07	-0.24	0.00	-0.07	0.06	0.30
	12/31/84	36	82	0.86	1.21	0.59	0.25	-0.36	-0.35	-0.36	0.15	0.12	0.14	-0.09	0.30
	9/30/84	10	80	0.84	1.22	0.64	0.38	-0.17	-0.26	-0.45	0.22	0.16	-0.08	0.05	0.33
	6/30/84	34	61	0.87	1.25	0.28	0.21	-0.34	-0.29	-0.33	0.10	0.10	-0.10	0.16	0.52
	3/31/84	30	58	0.87	1.16	0.25	0.15	0.03	-0.41	-0.22	0.01	0.19	-0.05	0.25	0.30
	12/31/83	43	51	0.74	1.23	0.16	0.09	-0.19	-0.23	-0.26	0.25	0.18	0.07	0.45	0.26
	9/30/83	57	47	0.77	1.34	-0.12	0.23	0.23	-0.11	-0.36	0.35	0.24	-0.23	0.05	0.15
	6/30/83	38	56	0.77	1.30	0.79	0.20	0.63	0.16	-0.36	-0.27	0.42	-0.94	-0.44	0.24
IDS ADVISORY	6/30/86	28	91	0.93	1.19	0.54	0.17	0.54	0.46	0.25	0.09	0.22	0.06	-0.23	-0.08
	3/31/86	16	92	0.91	1.20	0.53	0.21	0.44	0.50	0.34	0.11	0.29	-0.11	-0.22	0.11
	12/31/85	19	93	0.88	1.18	0.55	0.30	0.19	0.55	0.35	0.24	0.28	-0.12	-0.21	0.16
	9/30/85	21	98	0.86	1.15	0.37	0.28	-0.02	0.30	0.34	0.07	0.22	-0.17	-0.15	0.06
	6/30/85	13	98	0.87	1.11	0.37	0.21	0.17	0.16	0.41	-0.02	0.16	0.00	0.04	0.03
	3/31/85	39	87	0.85	1.08	0.24	-0.06	0.10	0.07	0.43	-0.09	-0.06	0.18	0.18	0.10
	12/31/84	21	89	0.83	1.05	0.04	-0.10	0.16	0.12	0.23	-0.07	-0.07	0.11	0.25	0.07
	9/30/84	40	92	0.89	1.08	0.17	-0.12	0.17	0.28	0.31	0.08	-0.04	0.19	0.23	0.03
	6/30/84	42	87	0.85	1.04	-0.08	-0.15	0.28	0.54	0.31	0.28	-0.11	0.18	0.21	0.17
	3/31/84	41	82	0.80	1.09	0.11	-0.01	0.23	0.15	0.19	0.17	-0.13	0.28	0.14	0.04
	12/31/83	45	89	0.86	1.17	0.24	0.23	0.27	0.15	-0.15	0.43	0.22	-0.34	-0.13	0.14
	9/30/83	79	86	0.86	1.24	0.64	0.20	0.29	0.26	-0.06	0.60	0.43	-0.46	-0.40	-0.10
	6/30/83	42	94	0.81	1.30	-0.92	-0.08	-0.26	0.17	-0.01	0.16	0.48	-0.51	-0.37	-0.11

MANAGER NAME	DATE	QTR. PORT. T/O	EQUITY ALLOC.	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
INVESTMENT ADVISERS	6/30/86	22	82	0.94	1.17	0.55	-0.04	0.40	0.28	0.06	-0.03	0.28	-0.16	-0.44	-0.10
	3/31/86	13	84	0.95	1.12	0.48	0.10	0.07	0.02	-0.03	-0.11	0.40	-0.57	-0.29	0.02
	12/31/85	32	83	0.93	1.14	0.39	0.18	-0.22	0.04	-0.01	-0.12	0.29	-0.27	-0.24	0.02
	9/30/85	4	95	0.92	1.15	0.45	0.18	-0.40	-0.12	0.07	-0.02	0.28	0.02	-0.25	0.03
	6/30/85	10	90	0.90	1.17	0.60	0.10	-0.33	-0.26	0.14	-0.17	0.12	0.18	-0.19	-0.08
	3/31/85	28	89	0.91	1.17	0.51	0.05	-0.33	-0.26	0.16	0.08	-0.02	0.43	-0.11	-0.06
	12/31/84	9	97	0.88	1.19	0.39	-0.12	-0.20	-0.34	-0.15	0.09	-0.08	0.43	-0.01	0.04
	9/30/84	21	88	0.86	1.21	0.40	-0.13	-0.21	-0.23	-0.00	0.12	0.02	0.45	-0.02	0.06
	6/30/84	8	98	0.89	1.21	0.11	-0.23	-0.28	-0.22	0.09	0.08	0.02	0.48	0.00	0.21
	3/31/84	21	92	0.89	1.17	0.05	-0.22	-0.36	-0.17	0.14	0.14	0.07	0.25	-0.14	0.22
	12/31/83	16	89	0.86	1.13	0.06	-0.15	-0.30	-0.16	-0.05	0.01	0.15	-0.09	-0.17	0.17
	9/30/83	8	89	0.87	1.13	0.16	-0.15	-0.20	-0.03	-0.03	0.03	0.19	0.01	-0.20	0.09
	6/30/83	7	78	0.89	1.08	0.28	-0.16	-0.12	0.01	-0.13	-0.10	0.17	-0.38	-0.09	-0.01
LIEBER & COMPANY	6/30/86	7	99	0.90	1.32	0.59	0.12	0.12	0.05	0.15	1.50	0.55	0.14	-0.36	-0.33
	3/31/86	14	99	0.86	1.31	0.63	0.02	-0.06	0.03	0.16	1.49	0.48	0.00	-0.38	-0.27
	12/31/85	12	97	0.85	1.30	0.53	0.07	-0.01	0.04	0.27	1.56	0.48	0.02	-0.39	-0.21
	9/30/85	6	98	0.80	1.30	0.54	0.12	-0.04	0.03	0.35	1.64	0.50	-0.10	-0.40	-0.31
	6/30/85	14	96	0.80	1.27	0.55	0.04	-0.17	0.03	0.40	1.83	0.36	-0.05	-0.35	-0.43
	3/31/85	19	99	0.81	1.24	0.65	0.03	0.04	0.09	0.35	1.79	0.17	-0.02	-0.35	-0.21
	12/31/84	14	85	0.79	1.34	0.78	0.12	-0.25	0.03	0.39	1.94	0.48	-0.05	-0.47	-0.17
	9/30/84	17	87	0.80	1.31	0.74	0.07	-0.28	0.05	0.49	1.99	0.51	0.01	-0.48	-0.18
	6/30/84	10	95	0.81	1.33	0.76	0.05	-0.37	0.13	0.52	1.99	0.42	-0.02	-0.48	-0.10
	3/31/84	0	93	0.85	1.37	0.65	0.00	-0.16	0.18	0.57	1.99	0.45	0.03	-0.46	-0.12
	12/31/83	9	00	0.83	1.24	0.63	-0.01	0.30	-0.06	0.28	1.93	0.29	0.12	-0.38	-0.07
	9/30/83	9	97	0.83	1.30	0.85	-0.03	0.47	-0.09	0.17	1.92	0.22	0.18	-0.29	-0.10
	6/30/83	2	92	0.84	1.26	0.90	-0.11	0.43	-0.11	-0.00	1.94	0.18	0.04	-0.27	-0.20
PEREGRINE CAPITAL	6/30/86	37	90	0.79	1.18	0.09	0.27	-1.28	-0.75	-0.52	0.62	0.17	-0.06	0.56	0.22
	3/31/86	47	84	0.76	1.19	0.19	0.16	-1.53	-0.73	-0.41	0.73	0.20	-0.31	0.51	0.19
	12/31/85	53	82	0.81	1.21	0.26	0.18	-1.31	-0.77	-0.55	0.88	0.10	-0.54	0.33	0.27
	9/30/85	9	80	0.82	1.22	0.53	0.37	-1.26	-0.63	-0.36	0.36	0.15	-0.33	0.22	0.24
	6/30/85	58	75	0.78	1.48	0.25	0.00	-1.46	-0.60	-0.45	1.06	0.07	-0.34	0.27	-0.13
	3/31/85	49	89	0.79	1.41	0.32	0.07	-1.28	-0.53	-0.48	1.01	-0.07	-0.09	0.27	0.02
	12/31/84	37	87	0.81	1.37	1.11	0.39	-0.05	0.72	0.27	1.88	0.76	-0.79	-0.96	-0.11
	9/30/84	61	97	0.81	1.36	1.10	0.43	0.10	0.89	0.22	1.70	0.83	-0.82	-0.95	-0.17
	6/30/84	26	89	0.83	1.39	0.77	0.37	-0.59	0.49	0.23	1.45	0.71	-0.55	-0.77	-0.09
	3/31/84	66	87	0.82	1.28	0.76	0.26	-0.30	0.82	0.31	1.29	0.77	-0.59	-0.67	-0.07
	12/31/83	92	83	0.87	1.23	0.66	0.16	0.12	0.41	0.12	1.32	0.74	-0.59	-0.69	-0.09
	9/30/83	56	85	0.87	1.27	0.96	0.09	0.85	0.85	0.09	1.22	0.77	-0.83	-0.75	-0.22
	6/30/83	95	80	0.88	1.23	0.70	-0.11	0.45	0.33	0.06	1.05	0.46	-0.42	-0.40	-0.13

MANAGER NAME	DATE	QTR. PORT. T/O	EQUITY ALLOC.	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
WADDELL & REED	6/30/86	35	79	0.93	1.28	0.74	0.08	0.28	0.02	-0.04	0.30	0.23	-0.02	-0.35	-0.02
	3/31/86	20	88	0.93	1.29	0.87	0.42	0.22	-0.07	-0.19	0.36	0.11	-0.51	-0.16	0.11
	12/31/85	36	75	0.91	1.27	0.76	0.36	0.10	-0.12	0.02	0.48	0.22	-0.02	-0.20	0.15
	9/30/85	41	50	0.85	1.24	0.53	0.37	-0.02	-0.24	-0.13	0.36	0.15	0.17	-0.09	0.24
	6/30/85	34	74	0.79	1.19	0.55	0.21	0.14	-0.31	0.17	0.26	-0.17	0.41	0.11	0.27
	3/31/85	51	78	0.82	1.26	0.62	0.23	-0.12	-0.39	0.09	0.49	-0.09	0.43	0.01	0.34
	12/31/84	39	52	0.75	1.29	0.78	0.10	0.00	-0.05	0.05	0.54	0.27	0.13	-0.30	0.12
	9/30/84	76	35	0.76	1.27	0.53	0.07	-0.01	-0.04	0.08	0.35	0.22	0.21	-0.20	0.02
	6/30/84	81	21	0.52	1.56	0.71	0.22	-0.74	-0.05	-0.16	0.89	-0.03	0.72	-0.60	0.24
	3/31/84	35	31	0.74	1.31	0.43	0.03	-0.13	-0.12	-0.22	0.61	-0.08	0.28	-0.35	0.23
	12/31/83	103	31	0.72	1.36	0.86	0.03	-0.49	-0.23	-1.07	1.42	0.09	-0.24	-0.46	-0.14
	9/30/83	9	73	0.73	1.41	1.31	-0.06	0.75	0.58	-0.24	1.98	0.56	-0.56	-0.69	-0.35
	6/30/83	38	75	0.74	1.48	1.51	0.00	1.11	0.49	-0.03	1.86	0.71	-0.53	-0.54	-0.05

EXTERNAL EQUITY MANAGERS

SECTOR WEIGHTING HISTORICAL PROFILE

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
			EQUITY SECTOR WEIGHTS								
AVG. EXT. MANAGERS	6/30/86	---	3.7	5.5	30.7	2.4	21.0	13.3	14.6	5.3	3.3
	3/31/86	---	2.8	5.5	25.6	5.1	20.7	13.4	14.6	6.4	5.8
	12/31/85	---	3.0	6.2	24.1	7.4	19.1	13.0	14.5	7.4	5.3
	9/30/85	---	2.8	6.6	27.5	4.2	18.4	12.7	16.8	7.6	3.4
	6/30/85	---	2.2	6.6	29.3	3.1	20.0	10.9	17.3	7.6	3.0
	3/31/85	---	2.4	6.8	26.4	3.6	17.5	11.4	22.2	6.8	3.0
	12/31/84	---	2.4	8.0	26.4	2.3	15.5	11.2	23.9	6.6	4.0
	9/30/84	---	2.9	7.9	27.9	3.8	14.1	9.6	26.3	4.8	2.7
	6/30/84	---	4.0	7.6	28.6	4.2	12.5	10.9	23.4	5.4	3.4
	3/31/84	---	5.2	7.6	24.0	5.7	13.2	13.3	22.7	5.1	3.1
	12/31/83	---	6.0	6.4	23.5	3.0	12.2	15.1	24.0	6.3	3.5
	9/30/83	---	3.6	5.9	28.9	3.1	12.8	13.5	24.2	5.7	2.4
	6/30/83	---	3.7	6.1	30.2	3.6	15.1	11.7	21.2	5.8	2.5
	3/31/83	---	2.8	4.3	30.6	3.6	15.2	11.4	23.5	4.9	3.8
FRED ALGER	6/30/86	112,733,180	1.9	7.5	52.9	---	11.6	6.2	15.8	4.0	---
	3/31/86	103,958,164	1.7	8.2	46.5	---	17.4	5.9	18.7	1.6	---
	12/31/85	86,744,768	1.7	11.7	38.7	---	18.2	3.1	17.0	6.6	2.9
	9/30/85	73,092,544	---	10.3	44.4	2.4	14.1	3.1	14.5	8.4	2.8
	6/30/85	63,144,042	---	17.6	36.0	1.4	9.3	3.5	15.7	16.6	---
	3/31/85	57,886,615	5.2	14.3	28.8	3.7	7.8	1.8	24.8	13.6	---
	12/31/84	54,018,782	5.2	16.1	36.1	---	4.1	7.9	25.2	5.4	---
	9/30/84	53,908,974	9.3	15.4	33.7	---	0.8	11.4	23.5	6.0	---
	6/30/84	49,936,760	14.0	8.0	30.7	---	3.8	11.5	29.5	2.6	---
	3/31/84	51,737,228	13.3	4.3	28.8	---	3.4	18.3	31.9	---	---
	12/31/83	55,644,200	13.2	6.6	21.7	---	6.4	18.1	33.9	---	---
	9/30/83	56,169,879	5.7	6.8	26.9	---	8.4	23.3	29.0	---	---
	6/30/83	58,138,999	4.9	8.5	35.0	3.5	8.2	18.0	21.9	---	---
	3/31/83	51,420,548	1.4	7.5	37.0	---	9.0	22.0	23.1	---	---

EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
ALLIANCE CAPITAL	6/30/86	110,202,737	2.3	3.6	49.1	---	28.1	---	9.8	7.1	---
	3/31/86	104,093,860	2.4	4.5	46.6	---	30.2	2.5	8.2	5.6	---
	12/31/85	87,252,311	---	4.6	45.6	---	29.2	---	14.3	6.3	---
	9/30/85	74,094,296	---	7.5	52.0	---	21.8	---	11.1	7.6	---
	6/30/85	65,072,829	---	8.7	49.9	2.2	14.3	---	12.7	8.9	3.3
	3/31/85	58,738,405	---	9.9	47.9	2.4	12.6	---	15.8	8.0	3.4
	12/31/84	52,332,767	---	8.7	48.8	---	10.2	---	20.6	8.1	3.7
	9/30/84	51,653,441	---	8.8	49.7	---	9.6	---	19.3	9.2	3.5
	6/30/84	48,457,996	---	8.1	51.6	---	6.9	---	23.5	9.9	---
	3/31/84	47,427,119	---	8.3	48.0	2.7	5.6	---	25.1	10.4	---
	12/31/83	52,725,699	0.8	7.5	45.3	---	6.8	2.4	24.2	13.1	---
	9/30/83	52,945,082	2.8	5.4	45.9	---	9.2	---	24.6	12.1	---
	6/30/83	57,538,354	2.2	4.7	42.3	---	8.2	7.5	22.7	12.4	---
	3/31/83	51,037,067	---	3.5	49.9	2.7	6.7	3.6	23.5	10.0	---
BEUTEL GOODMAN	6/30/86	90,128,302	3.4	5.3	9.3	4.0	20.3	23.3	19.0	11.0	4.4
	3/31/86	90,652,277	4.2	4.2	9.2	3.8	18.6	22.9	20.9	11.5	4.6
	12/31/85	79,304,850	3.9	3.8	9.0	2.8	28.2	22.1	18.2	12.0	---
	9/30/85	70,821,795	2.7	3.7	15.7	---	26.0	24.0	16.6	11.3	---
	6/30/85	75,450,430	2.8	---	12.8	---	30.4	23.1	19.1	11.7	---
	3/31/85	70,177,266	2.1	---	19.2	---	28.4	33.1	13.6	3.6	---
	12/31/84	63,402,269	8.8	---	13.8	---	32.2	33.8	11.4	---	---
	9/30/84	60,461,938	6.5	---	14.0	---	37.1	35.6	6.8	---	---
	6/30/84	55,295,358	9.3	---	21.1	---	30.4	32.4	6.7	---	---
	3/31/84	56,896,258	8.9	---	18.6	---	27.2	39.3	6.0	---	---
	12/31/83	57,233,781	9.8	---	20.2	---	11.2	46.2	5.4	7.2	---
	9/30/83	55,416,939	8.8	---	22.0	---	13.1	43.5	4.7	8.0	---
	6/30/83	54,835,808	11.0	---	18.5	---	17.4	42.4	---	10.6	---
	3/31/83	50,442,256	---	---	15.7	---	15.4	52.1	---	16.8	---
BMI CAPITAL	6/30/86	68,576,473	8.5	6.4	43.4	---	19.8	2.9	19.1	---	---
	3/31/86	64,120,062	6.8	7.7	38.4	4.6	20.9	3.6	18.0	---	---
	12/31/85	54,452,525	9.9	4.0	32.2	14.6	19.3	4.3	12.3	3.4	---
	9/30/85	49,026,413	10.4	3.4	37.8	---	6.0	4.0	28.9	9.6	---
	6/30/85	9,759,880	5.4	9.7	34.9	---	5.7	4.0	30.3	9.9	---
	3/31/85	9,851,108	7.1	9.0	37.6	---	---	6.8	35.9	3.7	---
	12/31/84	9,015,974	6.5	5.8	40.0	---	---	7.4	35.9	4.4	---
	9/30/84	8,820,740	4.6	13.4	42.6	---	---	4.1	31.3	3.9	---
	6/30/84	8,533,642	3.2	16.4	37.4	---	---	11.5	31.5	---	---
	3/31/84	8,366,038	4.3	12.7	39.3	---	---	17.8	25.9	---	---
	12/31/83	9,784,767	7.4	12.1	28.4	---	6.6	19.0	26.4	---	---
	9/30/83	10,420,827	7.6	11.2	37.1	---	6.4	18.6	19.2	---	---
	6/30/83	11,285,353	7.9	12.7	44.2	---	9.8	15.9	9.5	---	---
	3/31/83	10,081,983	10.6	8.1	35.3	---	12.3	22.0	11.8	---	---

EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
FORSTMANN-LEFF	6/30/86	95,703,997	2.6	6.6	25.2	---	22.4	13.2	23.7	5.2	1.1
	3/31/86	87,886,861	1.3	4.0	18.1	---	34.7	17.4	10.1	8.1	6.3
	12/31/85	73,996,082	1.4	7.9	25.7	2.1	25.2	22.1	8.9	6.7	---
	9/30/85	63,626,068	---	9.7	41.6	6.6	20.9	6.4	12.1	2.8	---
	6/30/85	66,383,632	1.1	7.4	40.1	---	25.1	10.3	11.0	5.1	---
	3/31/85	61,436,421	2.5	9.8	25.7	---	25.5	14.7	17.4	4.4	---
	12/31/84	55,396,358	1.4	10.5	30.9	---	23.3	15.1	13.3	5.5	---
	9/30/84	53,550,733	4.5	4.6	32.5	---	21.5	14.5	18.9	3.6	---
	6/30/84	51,218,131	3.7	3.6	40.2	---	7.0	10.3	24.3	7.2	3.7
	3/31/84	52,083,507	7.6	3.0	37.0	---	6.0	14.5	23.1	6.0	2.8
	12/31/83	55,421,154	5.7	13.6	35.5	5.8	3.9	8.4	18.7	5.3	3.1
	9/30/83	55,775,736	---	14.6	52.3	3.3	4.5	5.3	15.1	4.8	---
	6/30/83	56,471,479	---	12.7	61.4	---	2.7	7.2	11.7	4.3	---
	3/31/83	51,390,160	2.1	4.7	50.7	5.9	4.7	10.3	17.4	4.2	---
HELLMAN JORDAN	6/30/86	83,097,338	---	9.3	24.8	---	32.7	10.7	20.1	2.4	---
	3/31/86	82,829,526	---	12.1	22.3	2.2	29.8	13.6	18.4	1.7	---
	12/31/85	71,819,754	---	8.8	20.1	9.4	23.5	18.7	15.2	2.9	1.4
	9/30/85	60,551,842	---	5.6	17.1	6.9	26.9	17.2	13.8	4.7	7.7
	6/30/85	64,181,384	3.9	3.5	23.0	7.0	26.0	15.5	7.5	3.5	10.0
	3/31/85	59,732,797	1.3	---	21.9	5.9	25.3	13.6	16.1	6.7	9.2
	12/31/84	54,923,168	1.3	6.1	19.5	1.1	19.8	17.1	20.3	9.2	5.7
	9/30/84	52,497,049	1.5	10.7	11.3	0.8	14.0	15.3	29.3	12.0	5.0
	6/30/84	47,929,367	1.8	12.4	13.8	1.2	16.4	21.2	12.6	11.1	9.6
	3/31/84	49,895,127	---	12.4	19.5	6.4	15.7	15.7	4.3	8.8	17.2
	12/31/83	50,182,761	---	14.8	30.0	6.0	16.5	10.4	2.1	3.0	17.2
	9/30/83	50,713,576	---	15.0	47.4	---	19.5	3.5	3.3	4.7	6.5
	6/30/83	52,402,164	---	3.8	23.3	---	35.9	---	24.8	---	12.2
	3/31/83	49,541,253	---	---	15.1	---	33.4	4.6	27.2	---	19.7
INVESTMENT ADVISERS	6/30/86	86,330,923	8.2	---	33.0	1.0	9.6	26.5	13.2	8.6	---
	3/31/86	82,520,514	5.6	3.3	20.6	2.3	9.6	23.8	18.8	13.4	2.6
	12/31/85	73,389,199	4.0	6.6	15.7	3.0	12.6	18.5	24.4	12.2	2.9
	9/30/85	61,953,366	3.2	6.5	8.3	2.9	15.9	20.2	28.3	12.8	1.8
	6/30/85	66,785,302	3.4	8.8	6.5	3.2	18.8	17.1	29.0	13.2	---
	3/31/85	62,742,678	3.4	6.0	6.1	2.8	16.3	19.9	32.9	12.6	---
	12/31/84	58,967,426	3.3	6.4	13.6	5.9	20.5	19.2	19.9	10.8	0.6
	9/30/84	55,807,710	3.7	7.2	21.5	6.9	21.0	13.1	20.2	5.6	0.8
	6/30/84	50,388,386	5.5	5.9	26.3	6.2	18.8	9.1	20.6	3.7	3.9
	3/31/84	51,864,720	5.8	5.4	30.2	8.9	21.5	7.7	15.6	3.9	1.0
	12/31/83	54,533,402	6.3	6.3	25.0	5.8	21.9	9.7	15.7	6.1	3.2
	9/30/83	53,819,067	5.8	6.2	30.6	6.0	13.4	9.1	18.3	7.1	3.5
	6/30/83	54,812,985	6.5	6.6	24.7	11.7	9.7	9.8	16.9	10.3	3.9
	3/31/83	50,748,987	6.5	9.1	26.0	10.2	7.3	15.0	17.7	5.0	3.2

EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
IDS ADVISORY	6/30/86	96,881,914	---	---	42.4	3.1	16.4	15.8	6.5	5.0	10.8
	3/31/86	90,164,763	---	1.7	32.6	1.1	17.7	15.6	8.9	12.1	10.2
	12/31/85	76,939,408	---	1.9	31.7	2.6	14.9	10.4	13.9	13.2	11.4
	9/30/85	64,292,295	3.0	2.2	27.1	5.1	13.6	12.7	13.9	12.7	9.7
	6/30/85	68,295,847	3.0	4.8	27.7	8.4	13.4	7.2	11.7	8.5	15.1
	3/31/85	62,021,800	---	5.2	27.5	9.8	11.0	7.3	14.0	7.7	17.6
	12/31/84	57,153,006	1.8	4.6	29.5	3.7	7.6	3.7	16.9	7.2	25.0
	9/30/84	55,468,185	3.4	6.6	25.4	7.6	7.9	5.6	19.6	4.6	19.4
	6/30/84	50,278,968	---	5.3	27.6	8.1	6.8	7.6	19.2	4.8	20.6
	3/31/84	50,085,955	4.8	10.1	12.4	9.6	8.7	14.3	15.2	9.5	15.4
	12/31/83	54,006,960	4.9	7.6	18.0	---	8.8	19.0	26.1	6.0	9.6
	9/30/83	54,334,602	---	4.1	24.3	3.4	6.0	19.7	33.8	5.4	3.4
	6/30/83	57,561,715	4.2	12.0	30.5	4.5	4.2	6.7	33.7	4.3	---
	3/31/83	50,689,028	5.4	9.2	30.7	5.4	9.8	6.4	26.3	---	6.6
LIEBER & COMPANY	6/30/86	44,505,476	1.7	7.3	22.4	3.1	41.8	10.3	7.5	3.7	2.1
	3/31/86	40,102,680	2.1	7.4	21.4	3.5	38.4	12.3	9.0	4.0	2.0
	12/31/85	35,197,559	1.8	8.7	20.1	3.5	34.3	11.9	12.2	5.4	2.0
	9/30/85	30,715,520	1.6	7.0	21.9	4.5	32.6	14.3	11.8	5.1	1.2
	6/30/85	31,313,770	2.1	7.8	21.4	4.6	30.3	16.0	11.0	5.5	1.2
	3/31/85	29,544,589	2.9	8.0	25.3	6.1	28.9	15.1	8.9	3.5	1.3
	12/31/84	26,473,866	3.2	5.3	27.0	3.2	24.2	18.4	15.3	3.4	---
	9/30/84	25,807,665	2.9	3.8	33.0	4.1	22.4	16.8	14.8	2.2	---
	6/30/84	23,927,529	2.6	3.3	34.8	3.5	21.1	16.7	15.3	1.8	0.8
	3/31/84	24,261,218	3.6	6.4	32.3	4.9	17.3	16.8	16.3	1.8	0.7
	12/31/83	11,159,936	7.7	4.5	33.7	3.5	16.7	22.3	6.1	5.6	---
	9/30/83	11,016,060	6.5	3.5	31.0	4.7	18.0	25.4	5.4	5.5	---
	6/30/83	11,233,248	6.4	5.0	33.3	5.0	16.5	23.9	3.3	6.6	---
	3/31/83	10,063,917	8.3	---	23.1	3.9	11.6	41.0	5.6	6.4	---
PEREGRINE CAPITAL	6/30/86	89,051,403	8.0	6.7	9.6	15.2	8.1	15.7	13.6	5.0	18.1
	3/31/86	87,406,272	7.4	5.5	15.6	16.2	5.3	15.7	14.8	3.8	15.8
	12/31/85	82,085,372	9.1	6.3	15.1	17.8	5.3	19.1	11.2	3.3	12.7
	9/30/85	72,758,648	8.3	8.5	18.3	12.6	4.5	15.7	18.0	3.0	11.2
	6/30/85	29,610,673	0.2	---	51.4	4.2	12.4	2.9	24.0	2.7	2.3
	3/31/85	27,145,424	---	2.3	44.2	6.3	9.2	6.2	28.0	1.9	1.9
	12/31/84	25,188,312	---	2.3	37.5	2.7	3.9	9.8	37.7	4.1	1.9
	9/30/84	25,685,954	---	3.7	38.0	0.6	2.3	11.9	39.7	1.3	2.4
	6/30/84	24,546,941	2.8	5.5	31.2	5.8	1.0	9.3	38.9	4.3	1.3
	3/31/84	10,385,041	3.6	4.4	23.1	8.5	1.1	7.2	45.5	5.4	1.1
	12/31/83	11,215,761	2.5	1.6	25.5	1.2	3.2	6.0	51.8	1.7	6.6
	9/30/83	11,816,270	1.2	---	31.6	3.3	2.0	8.4	46.1	1.4	5.8
	6/30/83	12,126,921	4.8	---	36.4	5.2	8.9	4.8	33.0	2.9	3.3
	3/31/83	10,417,512	7.0	1.8	47.1	4.2	13.5	---	20.1	6.3	---

EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	TECH	TRAN	UTIL
WADDELL & REED	6/30/86	97,376,898	4.4	7.8	26.0	0.4	20.7	21.7	12.4	6.6	---
	3/31/86	95,498,169	4.3	7.3	13.0	2.9	23.3	24.9	16.9	7.3	---
	12/31/85	82,027,227	4.6	7.7	17.0	5.4	15.2	25.9	15.0	9.1	---
	9/30/85	74,328,144	2.0	7.7	18.8	5.1	19.7	22.5	15.6	5.2	3.3
	6/30/85	29,531,769	---	11.8	14.5	2.5	21.1	18.4	13.3	6.1	12.4
	3/31/85	27,604,382	---	12.8	11.9	2.7	21.5	15.8	16.3	7.9	11.2
	12/31/84	26,234,116	---	14.0	18.7	---	18.8	2.7	25.5	1.0	19.3
	9/30/84	25,856,251	1.4	13.9	28.0	3.3	14.3	0.5	30.9	1.6	6.1
	6/30/84	25,495,564	---	29.0	25.7	---	15.7	---	17.8	11.8	---
	3/31/84	25,833,644	5.2	32.1	21.4	---	25.0	---	11.7	4.5	---
	12/31/83	11,409,742	12.8	32.4	---	---	33.9	---	20.9	---	---
	9/30/83	12,042,511	5.8	13.4	22.5	---	5.1	---	38.2	15.0	---
	6/30/83	12,464,478	5.7	13.2	29.2	3.3	5.0	---	31.1	12.5	---
	3/31/83	10,013,713	5.5	13.8	15.5	2.5	29.1	---	27.2	6.4	---
WILSHIRE 5000	6/30/86	---	4.5	4.0	28.8	7.8	14.0	12.4	12.6	3.0	12.9
	3/31/86	---	4.8	4.7	27.0	8.0	14.1	11.8	13.4	3.3	12.9
	12/31/85	---	4.8	4.2	25.7	10.5	12.9	11.4	14.2	3.3	13.0
	9/30/85	---	4.7	4.1	26.2	10.6	12.3	11.4	14.0	3.4	13.3
	6/30/85	---	4.8	4.0	26.3	11.2	12.2	10.8	13.6	3.6	13.5
	3/31/85	---	4.9	3.9	25.3	13.0	11.4	10.9	14.4	3.3	12.9
	12/31/84	---	5.4	9.9	23.0	13.5	9.9	10.6	13.2	3.7	10.8
	9/30/84	---	5.2	4.3	24.9	13.2	10.3	11.5	15.5	2.9	12.2
	6/30/84	---	5.3	4.0	25.7	13.5	9.6	11.7	15.6	2.9	11.7
	3/31/84	---	5.4	3.9	23.6	16.1	9.8	12.1	15.3	2.9	11.1
	12/31/83	---	5.5	4.2	24.0	14.5	9.5	12.2	16.3	2.8	11.1
	9/30/83	---	5.2	4.0	24.3	14.8	9.4	11.8	16.3	2.9	11.3
	6/30/83	---	5.3	3.9	24.9	15.0	9.3	11.6	16.3	2.9	10.9
	3/31/83	---	5.1	3.5	25.2	14.6	9.8	12.3	14.9	2.9	11.8

EXTERNAL EQUITY MANAGERS

HISTORICAL PERFORMANCE SUMMARY

	2Q 86	1Q 86	4Q 85	3Q 85	2Q 85	1Q 85	4Q 84	3Q 84	2Q 84	1Q 84	4Q 83	3Q 83	2Q 83
FRED ALGER													
Equity	9.0%	21.2%	20.0%	-4.7%	10.1%	7.3%	0.2%	8.3%	-4.1%	-8.1%	-1.0%	-3.5%	13.9%
Total Fund	8.5	19.8	18.7	-4.6	9.1	7.2	0.2	8.0	-3.5	-7.0	-0.9	-3.4	13.1
ALLIANCE CAPITAL													
Equity	6.1	20.0	19.2	-3.6	11.5	13.1	1.3	7.1	2.2	-11.2	-0.6	-8.7	14.3
Total Fund	5.9	19.3	17.8	-3.3	10.8	12.2	1.3	6.6	2.2	-10.1	-0.4	-8.0	12.7
BEUTEL GOODMAN													
Equity	-0.9	15.7	12.5	-9.0	8.1	12.1	5.1	10.1	-2.8	-0.7	3.5	3.4	13.9
Total Fund	-0.6	14.3	12.0	-8.6	7.5	10.7	4.9	9.3	-2.8	-0.6	3.3	1.1	8.7
BMI CAPITAL													
Equity	7.2	18.6	19.4	-9.9	-0.7	10.5	2.3	3.6	2.1	-14.4	-6.0	-7.8	14.4
Total Fund	7.0	17.8	11.1	-2.4	-0.9	9.3	2.2	3.4	2.0	-14.5	-6.1	-7.7	11.9
FORSTMANN-LEFF													
Equity	10.1	20.8	21.5	-5.4	9.4	12.6	3.7	7.5	-2.8	-8.3	-1.0	-1.7	11.2
Total Fund	8.9	18.8	16.3	-4.2	8.1	10.9	3.4	4.6	-1.7	-6.0	-0.6	-1.2	9.9
HELLMAN JORDAN													
Equity	0.4	16.1	19.4	-5.9	9.5	10.0	4.3	8.6	-4.8	-3.1	-0.9	-9.5	10.0
Total Fund	0.3	15.3	18.6	-5.6	7.5	8.7	4.6	9.5	-3.9	-0.6	-1.0	-3.2	5.8
IDS ADVISORY													
Equity	8.1	18.2	20.5	-5.9	10.7	9.2	3.2	11.4	0.0	-8.4	-0.9	-6.6	14.3
Total Fund	7.5	17.2	19.7	-5.9	10.1	8.5	3.0	10.3	0.4	-7.3	-0.6	-5.6	13.6
INVESTMENT ADVISERS													
Equity	5.3	14.7	20.5	-7.8	7.1	6.6	5.8	11.3	-3.0	-5.8	1.5	-2.9	11.6
Total Fund	4.6	12.4	18.5	-7.2	6.4	6.4	5.7	10.7	-2.8	-4.9	1.3	-1.8	8.0
LIEBER & COMPANY													
Equity	11.8	13.8	15.2	-1.7	6.3	13.8	2.9	8.9	-1.3	-10.2	1.7	-2.4	16.6
Total Fund	11.0	13.9	14.6	-1.9	6.0	11.6	2.6	7.9	-1.4	-7.3	1.3	-1.9	11.6
PEREGRINE CAPITAL													
Equity	2.1	7.7	15.5	0.4	10.7	9.5	-2.1	5.3	-3.2	-8.8	-6.0	-3.6	19.6
Total Fund	1.9	6.5	12.8	-1.9	9.1	7.8	-1.9	4.7	-2.7	-7.4	-5.1	-2.6	16.4
WADDELL & REED													
Equity	2.4	19.7	18.4	-5.4	8.7	8.1	0.7	-1.6	-10.3	-14.0	-9.3	-4.7	30.2
Total Fund	2.0	16.4	10.4	-2.0	7.0	5.2	1.5	1.4	-1.3	-2.2	-5.3	-3.0	24.0
SBI AGGREGATE													
Equity	5.0	16.6	17.7	-5.7	8.8	9.5	2.4	8.0	-2.7	-7.5	-1.5	-5.6	12.1
Total Fund	4.5	15.2	15.2	-4.5	8.0	8.4	2.4	7.2	-2.2	-5.9	-1.2	-4.5	10.5
MARKET INDICES													
Wilshire 5000	5.8	14.4	16.8	-4.3	7.5	10.3	1.3	9.2	-2.8	-4.2	-1.0	-0.9	13.0
S&P 500	6.0	14.1	17.3	-4.1	7.4	9.2	1.8	9.7	-2.5	-2.4	0.4	-0.1	11.1
91 Day T-Bills	1.6	1.8	1.8	1.9	1.9	2.1	2.3	2.7	2.6	2.4	2.3	2.4	2.2

BOND MANAGER PORTFOLIO STATISTICS GLOSSARY

Like the preceding equity manager portfolio statistics glossary, this bond manager portfolio statistics glossary is designed to define terminology used in evaluating a bond manager's investment philosophy, risk characteristics and performance data.

Qtr. Port. Turnover	- the manager's total bond sales during the quarter divided by the average value of the manager's bond portfolio over the quarter.
# of Issues	- the number of different bond issues held in the manager's portfolio.
Bond Allocation	- the percent of the manager's total portfolio invested in bonds.
Coupon	- the annual interest payment received on the manager's total portfolio stated as a percent of the portfolio's face value.
Current Yield	- the annual interest payment produced by the manager's total portfolio stated as a percent of the portfolio's market value.
Yield to Maturity	- the compounded annualized return that the manager's total portfolio would produce if it were held to maturity and all cash flows were reinvested at an interest rate equal to the yield to maturity.
Duration	- a measure of the average life of the total portfolio. Duration is a weighted average maturity whereby the time in the future that each cash flow is received is weighted by the proportion that the present value of the cash flow contributes to the total present value (or price) of the total portfolio.
Term to Maturity	- also a measure of the average life of the total portfolio. Term to maturity is the number of years remaining until the average bond in the portfolio makes its final cash payment.

Quality Weightings	-	refers to the average rating given the total portfolio's securities by Moody's Corp. A security's rating indicates the financial strength of its issuer and other factors related to the likelihood of full and timely payment of interest and principal.
Sector Weightings	-	refers to the sectors of the bond market in which the manager has positioned his/her bond portfolio.
TUCS Median	-	the median manager within a subsample of the TUCS universe that is restricted to fixed income managers investing in portfolios with quality and duration characteristics similar to those that are required of the SBI's bond managers.

EXTERNAL FIXED INCOME MANAGERS

PORTFOLIO STATISTICS HISTORICAL SUMMARY

MANAGER NAME	DATE	QUARTER PORTFOLIO T/O	# OF BONDS	BOND ALLOCATION	COUPON	CURRENT YIELD	YIELD TO MAT.	AVERAGE QUALITY	DURATION	TERM TO MAT.
AVG. EXT. MGRS.	6/30/86	47	40	96	9.8	9.3	9.0	AAA	4.6	10.0
	3/31/86	41	39	96	10.3	9.6	8.8	AAA	4.5	12.3
	12/31/85	41	33	95	10.5	10.0	9.6	AAA	4.4	8.7
	9/30/85	22	34	96	10.7	10.6	10.6	AAA	4.3	8.7
	6/30/85	48	29	95	10.4	10.2	10.4	AAA	4.5	8.5
	3/31/85	37	25	91	10.3	10.8	11.5	AAA	4.2	8.2
	12/31/84	38	22	93	10.3	10.8	11.4	AAA	4.5	8.8
	9/30/84	54	29	88	10.1	11.1	12.3	AAA	4.3	8.8
INVESTMENT ADV.	6/30/86	9	21	96	9.6	8.8	8.3	AAA	3.3	4.1
	3/31/86	17	22	95	9.9	8.9	8.2	AAA	3.3	4.2
	12/31/85	10	16	95	9.4	8.8	8.7	AAA	3.4	4.3
	9/30/85	30	18	99	9.7	9.3	9.9	AAA	3.8	5.1
	6/30/85	50	17	99	8.4	8.1	10.1	AAA	4.7	6.2
	3/31/85	19	13	99	8.7	9.3	11.7	AAA	4.9	8.9
	12/31/84	25	10	99	8.4	9.3	11.5	AAA	5.6	12.1
	9/30/94	10	7	100	9.0	10.8	12.6	AAA	6.4	15.2
LEHMAN MGMT.	6/30/86	16	48	97	10.8	9.8	8.3	AAA	4.0	8.1
	3/31/86	28	54	97	11.0	9.7	8.3	AAA	4.0	8.5
	12/31/85	40	32	89	11.1	10.2	9.2	AAA	3.7	6.5
	9/30/85	24	35	95	11.4	10.9	10.2	AAA	3.9	6.6
	6/30/85	49	27	92	11.4	10.8	9.9	AAA	3.8	6.3
	3/31/85	43	24	85	11.6	11.4	11.0	AAA	3.6	5.6
	12/31/84	44	19	85	11.6	11.4	10.8	AAA	3.3	5.3
	9/30/84	62	15	82	11.2	11.5	12.2	AAA	3.7	6.5
MILLER ANDERSON	6/30/86	57	60	97	9.4	9.3	9.5	AA	5.2	11.6
	3/31/86	73	37	92	10.5	9.7	8.8	AA	4.4	11.4
	12/31/85	71	42	99	10.4	9.9	9.6	AA	5.3	9.6
	9/30/85	23	52	98	9.6	10.2	10.6	AA	5.0	9.7
	6/30/85	75	48	95	9.3	10.0	10.4	AA	4.6	9.3
	3/31/85	35	41	92	9.0	10.0	11.1	AA	3.7	7.4
	12/31/84	50	43	99	9.1	10.1	11.3	AA	3.9	7.3
	9/30/84	83	59	71	9.8	11.1	11.9	AAA	3.3	6.7

MANAGER NAME	DATE	QUARTER PORTFOLIO T/O	# OF BONDS	BOND ALLOCATION	COUPON	CURRENT YIELD	YIELD TO MAT.	AVERAGE QUALITY	DURATION	TERM TO MAT.
MORGAN STANLEY	6/30/86	89	13	100	8.6	8.9	9.1	AAA	5.4	10.8
	3/31/86	62	20	100	9.4	9.0	8.7	AAA	5.4	19.9
	12/31/85	58	17	100	10.4	10.1	9.9	AAA	5.0	10.6
	9/30/85	18	20	100	11.2	11.1	11.0	AAA	4.4	9.8
	6/30/85	38	17	100	11.4	10.8	10.5	AAA	5.0	9.7
	3/31/85	62	16	85	11.1	11.3	11.5	AAA	3.8	7.3
	12/31/84	30	12	100	11.5	11.5	11.5	AAA	5.3	9.4
	9/30/84	105	20	99	8.6	8.9	12.5	AAA	3.7	5.3
PEREGRINE	6/30/86	12	51	97	10.8	10.2	9.8	AA	4.3	9.7
	3/31/86	10	54	98	11.2	10.3	9.4	AA	4.1	11.0
	12/31/85	18	51	98	11.5	10.8	10.4	AA	3.7	9.3
	9/30/85	20	43	96	11.6	11.2	11.0	AA	3.3	7.8
	6/30/85	15	35	98	11.2	10.8	10.5	AA	3.4	7.6
	3/31/85	13	28	100	11.1	11.3	11.5	AA	3.7	7.6
	12/31/84	39	25	96	10.5	10.9	11.3	AA	3.5	7.5
	9/30/84	17	21	93	10.6	11.7	12.5	AA	3.6	7.6
WESTERN ASSET	6/30/86	97	48	90	9.3	9.0	9.0	AA	5.6	15.7
	3/31/86	58	48	95	9.8	9.8	9.3	AA	5.5	18.9
	12/31/85	47	40	87	10.3	10.1	10.0	AA	5.2	11.9
	9/30/85	19	34	89	10.7	11.0	11.1	AA	5.6	13.0
	6/30/85	58	29	84	10.5	10.7	10.8	AA	5.4	12.1
	3/31/85	52	28	87	10.4	11.5	12.1	AA	5.3	12.2
	12/31/84	39	24	80	10.6	11.4	11.8	AA	5.2	11.3
	9/30/84	49	19	80	11.3	12.3	12.8	AA	4.8	11.3

EXTERNAL FIXED INCOME MANAGERS
SECTOR WEIGHTING HISTORICAL PROFILE

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	QUALITY WEIGHTINGS					SECTOR WEIGHTINGS									
			AAA	AA	A	BAA	OTHER	GOVT	AGCY	ZERO	IND	UTIL	FIN	TRAN	MTGS	MISC	CASH
AVG. EXT. MGRS.	6/30/86	---	78	6	10	3	3	28	6	3	9	2	10	1	37	3	4
	3/31/86	---	79	6	9	3	3	35	2	2	9	2	9	0	34	3	4
	12/31/85	---	80	5	8	2	5	35	3	2	6	2	9	0	35	3	5
	9/30/85	---	81	5	8	1	5	33	3	2	7	2	9	0	39	1	4
	6/30/85	---	81	6	6	3	4	34	1	4	5	4	9	0	36	1	5
	3/31/85	---	78	10	6	2	4	27	5	4	5	6	12	0	31	1	9
	12/31/84	---	77	12	7	2	2	33	8	4	2	8	12	0	24	1	7
	9/30/84	---	79	12	7	2	0	30	10	7	3	8	9	1	19	1	12
INVESTMENT ADV.	6/30/86	39,301,944	81	8	11	0	0	34	18	12	23	0	10	0	0	0	4
	3/31/86	38,938,391	84	8	8	0	0	52	0	12	25	0	6	0	0	0	5
	12/31/85	36,766,845	96	4	0	0	0	68	0	12	8	0	7	0	0	0	5
	9/30/85	34,573,707	96	4	0	0	0	70	0	13	9	0	7	0	0	0	1
	6/30/85	33,794,148	96	4	0	0	0	62	0	23	10	0	4	0	0	0	1
	3/31/85	30,942,776	85	15	0	0	0	53	0	18	11	13	4	0	0	0	1
	12/31/84	30,397,636	74	26	0	0	0	52	0	18	0	25	4	0	0	0	1
	9/30/84	27,932,974	72	28	0	0	0	59	0	10	0	31	0	0	0	0	0
LEHMAN MGMT.	6/30/86	223,483,722	89	4	6	1	0	60	0	0	11	2	7	0	18	0	3
	3/31/86	220,998,995	89	4	6	1	0	65	2	0	9	0	6	0	15	0	3
	12/31/85	207,462,430	89	5	6	0	0	51	10	0	7	2	7	0	12	0	11
	9/30/85	194,774,253	87	6	7	0	0	54	12	0	9	2	7	0	11	0	5
	6/30/85	190,808,742	91	5	4	0	0	64	8	0	5	2	4	0	9	0	8
	3/31/85	177,383,853	95	3	2	0	0	65	13	0	2	0	2	0	3	0	15
	12/31/84	173,831,628	98	0	2	0	0	64	13	0	3	0	0	0	5	0	15
	9/30/84	162,737,117	96	1	2	0	0	60	13	5	4	0	0	0	0	0	18
MILLER ANDERSON	6/30/86	217,656,629	71	5	4	5	15	25	0	0	2	0	8	0	60	2	3
	3/31/86	217,291,031	74	0	5	5	16	45	0	0	2	0	8	0	37	0	8
	12/31/85	208,552,908	71	0	6	4	19	45	0	0	2	0	8	0	44	0	1
	9/30/85	191,849,284	68	1	9	4	18	24	0	0	5	0	9	0	60	0	2
	6/30/85	183,857,869	69	3	8	4	16	19	0	2	5	0	12	0	57	0	5
	3/31/85	173,961,916	54	13	11	2	20	2	0	4	7	0	27	0	52	0	8
	12/31/84	169,696,156	55	17	14	5	9	0	0	7	5	0	36	0	51	0	1
	9/30/84	159,574,376	81	12	5	2	0	0	0	0	2	0	17	0	52	0	29

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	QUALITY WEIGHTINGS					SECTOR WEIGHTINGS									
			AAA	AA	A	BAA	OTHER	GOVT	AGCY	ZERO	IND	UTIL	FIN	TRAN	MTGS	MISC	CASH
MORGAN STANLEY	6/30/86	222,763,940	100	0	0	0	0	33	9	0	0	0	0	0	58	0	0
	3/31/86	225,686,690	100	0	0	0	0	41	0	0	0	0	0	0	59	0	0
	12/31/85	208,381,895	100	0	0	0	0	42	0	0	0	0	0	0	58	0	0
	9/30/85	193,513,567	100	0	0	0	0	41	0	0	0	0	0	0	59	0	0
	6/30/85	188,907,479	100	0	0	0	0	49	0	0	0	0	0	0	51	0	0
	3/31/85	173,106,782	100	0	0	0	0	38	9	0	0	0	0	0	38	0	15
	12/31/84	170,547,941	100	0	0	0	0	74	18	0	0	0	0	0	8	0	0
	9/30/84	159,109,110	100	0	0	0	0	45	27	27	0	0	0	0	0	0	1
PEREGRINE	6/30/86	104,606,143	48	19	31	0	2	0	0	0	9	0	30	0	41	17	3
	3/31/86	104,370,666	48	18	32	0	2	0	0	0	9	0	31	0	40	17	2
	12/31/85	100,139,659	55	13	29	0	3	0	0	0	5	0	29	0	48	16	2
	9/30/85	95,186,493	61	12	25	0	2	0	0	0	4	2	31	0	52	7	4
	6/30/85	92,417,709	56	15	20	7	2	0	0	0	4	5	33	0	49	7	2
	3/31/85	86,259,088	55	23	19	3	0	3	0	0	0	5	38	0	47	7	0
	12/31/84	84,387,890	65	13	18	4	0	6	7	0	0	5	30	0	48	0	4
	9/30/84	79,887,650	58	14	24	4	0	12	7	0	10	0	31	0	33	0	7
WESTERN ASSET	6/30/86	238,657,259	80	2	8	9	1	13	9	3	7	7	2	4	45	0	10
	3/31/86	235,514,306	76	4	5	14	1	7	9	3	12	9	2	1	52	0	5
	12/31/85	220,363,561	73	5	8	7	7	5	8	1	15	9	2	1	48	0	11
	9/30/85	201,666,058	74	6	5	4	11	11	3	0	14	10	0	1	49	0	12
	6/30/85	197,929,627	73	9	4	8	6	10	0	0	8	15	0	1	51	0	15
	3/31/85	181,426,695	76	9	4	7	4	4	11	0	8	16	0	1	47	0	13
	12/31/84	177,328,832	69	15	7	5	4	3	11	0	6	19	2	2	33	4	20
	9/30/84	165,957,816	68	15	9	5	3	4	16	0	3	18	4	5	26	4	20

EXTERNAL FIXED INCOME MANAGERS

HISTORICAL PERFORMANCE SUMMARY

	2Q 1986	1Q 1986	4Q 1985	3Q 1985	2Q 1985	1Q 1985	4Q 1984	3Q 1984
INVESTMENT ADVISERS								
Fixed Income	0.9%	6.2%	6.5%	2.5%	9.4%	1.9%	8.8%	11.8%
Total Fund	0.9	5.9	6.3	2.3	9.2	1.8	8.8	11.8
LEHMAN MANAGEMENT								
Fixed Income	1.2	6.7	6.9	2.1	8.7	2.0	7.7	9.6
Total Fund	1.1	6.5	6.5	2.1	7.6	2.1	6.8	8.7
MILLER ANDERSON								
Fixed Income	0.2	4.4	8.8	4.4	6.0	2.5	7.5	7.7
Total Fund	0.2	4.2	8.7	4.4	5.7	2.5	6.3	6.7
MORGAN STANLEY								
Fixed Income	-2.1	8.2	7.7	2.5	9.3	1.5	7.3	6.1
Total Fund	-1.3	8.3	7.7	2.4	9.1	1.5	7.2	6.3
PEREGRINE CAPITAL								
Fixed Income	0.2	4.3	5.4	3.1	7.3	2.3	6.0	7.7
Total Fund	0.2	4.2	5.2	3.0	7.1	2.2	5.6	6.9
WESTERN ASSET								
Fixed Income	0.9	7.4	10.7	1.9	10.7	2.4	8.0	11.8
Total Fund	1.3	6.9	9.3	1.9	9.1	2.3	6.8	10.8
SBI FIXED INCOME AGGREGATE								
Fixed Income	1.7	6.4	8.1	2.8	8.5	2.1	7.5	8.8
Total Fund	0.4	6.2	7.7	2.7	7.8	2.1	6.8	8.1
MARKET INDEX								
Salomon Broad Bond Index	1.1	7.9	7.8	2.0	8.9	2.2	7.5	8.6

TIME-WEIGHTED RATE OF RETURN

In measuring the performance of a manager or fund whose investment objective is to maximize the total value of an investment portfolio, the proper measuring tool is the time-weighted total rate of return. This performance measure includes the effect of income earned as well as realized and unrealized portfolio market value changes. In addition, the time-weighted total rate of return nets out the influence of contributions made to and distributions taken from the manager or fund. These are variables over which the manager or fund generally has no control.

The calculation of a portfolio's true time-weighted return requires that the portfolio be valued every time that there is a capital flow in or out. Because most portfolios are not valued that frequently, it is usually necessary to estimate the time-weighted total rates of return by approximating the required valuations.

In 1968, the Bank Administration Institute (BAI) commissioned a study, conducted by the University of Chicago, which considered desirable methods of estimating time-weighted returns. The BAI report is considered to be the definitive work in the field of performance measurement because of the academic reputations and thorough scientific efforts of its authors.

When monthly data are available, the BAI study recommends employing a technique called the linked internal rate of return (LIRR). State Street Bank, the SBI's performance measurement consultant, calculates the LIRR by solving the following equation for R:

$$VB*(1+R) + \sum_{i=1}^{n} C*(1+R)**ti = VE$$

Where:

VB = Value of the fund at the beginning of the month

VE = Value of the fund at the end of the month

Ci = Net cash flow on the ith day of the month

n = Number of cash flows in the month

R = Internal rate of return

ti = Time from cash flow i to the end of the period, expressed as a percentage of the total number of days in the month

The internal rate of return, R, is a proxy for the true time-weighted return over the month. It approximates the interim valuations by assuming a uniform growth of the invested assets throughout the period.

The IRR's calculated for each month can be linked together to estimate the time-weighted return for a longer period. For example, given three consecutive monthly IRR's - R1, R2, and R3, the quarterly time-weighted return (TWRQ) is:

$$TWRQ = (1+R1)*(1+R2)*(1+R3) - 1$$

MINNESOTA STATE BOARD OF INVESTMENT
COMMISSIONS AND TRADING VOLUME
BY BROKER
FISCAL YEAR 1986

BROKER	EQUITY DOLLAR VOLUME	EQUITY COMMISSIONS	BOND DOLLAR VOLUME	BOND COMMISSIONS	SHORT TERM DOLLAR VOLUME
ABEL/NOSER CORP.	3,663,478.50	7,500.00	0.00	0.00	0.00
ALLISON-WILLIAMS	0.00	0.00	1,731,348.79	16,741.50	0.00
AMERICAN EXPRESS CREDIT	0.00	0.00	0.00	0.00	37,608,000.00
AMERICAN SECURITIES	226,875.00	1,550.00	0.00	0.00	0.00
ASSOC CORP OF N AMER	0.00	0.00	0.00	0.00	116,866,000.00
AUTRANET	3,624,490.00	9,148.00	0.00	0.00	0.00
BANK OF AMERICA	0.00	0.00	0.00	0.00	104,163,000.00
BANKERS TRUST	0.00	0.00	0.00	0.00	8,620,000.00
BEAR STEARNS & CO	14,784,137.50	36,437.00	2,575,355.55	6,250.00	5,786,233,000.00
BENEFICIAL CORP	0.00	0.00	0.00	0.00	104,575,000.00
BLYTH PAINE WEBBER	0.00	0.00	1,283,136.87	5,718.44	0.00
BOSTON INST. SERVICES	1,180,000.00	3,400.00	0.00	0.00	0.00
BRANDT (ROBERT) & CO	11,814,750.00	22,165.00	0.00	0.00	0.00
BRIGGS & SCHAEDLE	0.00	0.00	0.00	0.00	6,000,000.00
BROWN ALEX & SONS	1,470,345.00	3,112.50	0.00	0.00	0.00
BURDGE DANIELS & CO.	0.00	0.00	1,527,637.28	4,132.00	0.00
CANTOR FITZGERALD	6,564,586.75	16,658.24	0.00	0.00	0.00
CAPITAL INST. SERVICES	6,205,927.50	15,903.50	0.00	0.00	0.00
CHASE MANHATTAN BANK	0.00	0.00	0.00	0.00	223,089,000.00
CHEMICAL BANK N.Y.	0.00	0.00	0.00	0.00	26,854,370.30
CHEVRON OIL FIN. CO.	0.00	0.00	0.00	0.00	76,000,000.00
CIT FINANCIAL CORP	0.00	0.00	0.00	0.00	221,050,000.00
CITIBANK	0.00	0.00	0.00	0.00	73,200,000.00
COWEN&CO	4,239,587.20	12,657.00	0.00	0.00	0.00
CYRUS J. LAWRENCE	1,079,376.20	3,350.00	0.00	0.00	0.00
DEAN WITTER REYNOLDS	31,594,981.00	86,855.00	0.00	0.00	5,000,000.00
DELAFIELD HAR. TABELL	2,211,747.44	5,044.00	0.00	0.00	0.00
DONALDSON LUFKIN	22,684,646.70	45,274.00	0.00	0.00	0.00
DREXEL BURNHAM LAMBERT	38,702,012.55	87,216.70	12,399,736.26	32,230.00	0.00
E F HUTTON AND CO	8,105,769.50	19,956.50	0.00	0.00	0.00
EBERSTADT (F) & CO	1,014,212.50	2,696.75	0.00	0.00	0.00
EDWARDS A.G. & SONS	0.00	0.00	1,079,010.00	2,500.00	0.00
FIRST BOSTON CORPORATION	25,546,156.99	56,933.00	55,079,485.75	132,333.86	17,236,990,000.00
FIRST INTERSTATE BK CAL	0.00	0.00	0.00	0.00	500,000.00
FIRST MANHATTAN COMPANY	17,628,678.80	39,311.75	0.00	0.00	0.00
FIRST NATIONAL BANK CHI	0.00	0.00	0.00	0.00	61,500,000.00
FIRST NATIONAL BANK MPLS	0.00	0.00	0.00	0.00	75,407,000.00
FIRST NATIONAL BANK SP	0.00	0.00	0.00	0.00	8,302,000.00
FORD MOTOR CREDIT CO	0.00	0.00	0.00	0.00	231,410,000.00
FURMAN SELZ MAGER	8,044,615.10	12,499.00	0.00	0.00	0.00
GENERAL ELEC. FIN. SERV.	0.00	0.00	0.00	0.00	159,713,000.00
GENERAL ELECTRIC CREDIT	0.00	0.00	0.00	0.00	233,307,000.00
GENERAL MOTORS ACCEPTANCE	0.00	0.00	0.00	0.00	271,791,000.00
GOLDMAN SACHS & COMPANY	66,414,011.60	157,849.25	14,898,342.00	40,505.00	12,388,696,000.00
HELLER FINANCIAL INC.	0.00	0.00	0.00	0.00	294,777,000.00
HOUSEHOLD FINANCE	0.00	0.00	0.00	0.00	185,800,000.00
INSTANET	114,504,563.13	73,743.58	0.00	0.00	0.00
JANNEY MONTGOMERY SCOTT	0.00	0.00	470,000.00	1,250.00	0.00
JEFFERIES & CO	51,571,095.75	144,444.50	0.00	0.00	0.00
JOHNSON LANE SPACE & SMIT	3,609,954.00	10,371.00	0.00	0.00	0.00
JONES ASSOCIATES	6,457,103.34	22,854.00	0.00	0.00	0.00
KEEFE BRUYETTE & WOOD	7,232,190.00	17,552.00	0.00	0.00	0.00
KIDDER PEABODY	2,002,650.00	7,070.00	49,518,616.68	130,835.00	43,000,000.00
KLEINWORT BENSON GOVT SEC	0.00	0.00	0.00	0.00	1,885,000.00
L F ROTHSCHILD	0.00	0.00	17,381,861.00	47,645.00	0.00

MINNESOTA STATE BOARD OF INVESTMENT
COMMISSIONS AND TRADING VOLUME
BY BROKER
FISCAL YEAR 1986

BROKER	EQUITY DOLLAR VOLUME	EQUITY COMMISSIONS	BOND DOLLAR VOLUME	BOND COMMISSIONS	SHORT TERM DOLLAR VOLUME
LAZARD FRERES & CO	0.00	0.00	2,672,981.70	14,825.50	0.00
LEHMAN GOVT SECURITIES	0.00	0.00	0.00	0.00	4,892,841,000.00
LYNCH JONES & RYAN	3,775,387.50	8,921.00	0.00	0.00	0.00
MANUFACTURERS HANOVER TRU	0.00	0.00	0.00	0.00	82,720,000.00
MARQUETTE NATIONAL BANK	0.00	0.00	0.00	0.00	45,507,000.00
MCKINNEY SQUARE ALLSOPP S	1,081,312.50	3,160.00	0.00	0.00	0.00
MELLON BANK	0.00	0.00	0.00	0.00	21,000,000.00
MERRILL LYNCH P F & S (R)	63,439,474.92	155,375.30	51,620,187.21	132,847.25	453,359,000.00
MESIROW AND COMPANY	3,571,120.13	8,702.50	0.00	0.00	0.00
MONTGOMERY SECURITIES	3,074,650.00	6,942.00	0.00	0.00	0.00
MORGAN GUARANTY	0.00	0.00	0.00	0.00	10,265,000.00
MORGAN STANLEY & CO	36,574,481.30	92,704.00	39,859,520.74	96,218.75	0.00
MOSELEY HALLGARTER ESTABR	52,875.00	470.00	0.00	0.00	0.00
NEUBERGER & BERMAN	512,750.00	2,716.00	0.00	0.00	0.00
NEW YORK & FOREIGN SEC	6,813,881.25	15,384.00	0.00	0.00	0.00
NEWHARD COOKE & CO	238,162.50	1,044.00	0.00	0.00	0.00
NOMURA SECURITIES INTL	494,000.00	2,080.00	0.00	0.00	0.00
NORWEST BANK MPLS	0.00	0.00	0.00	0.00	188,903,000.00
OPPENHEIMER & CO	9,131,362.50	21,185.00	212,720.00	625.00	0.00
PAINE WEBBER J & C	23,737,510.55	61,902.00	0.00	0.00	6,000,000.00
PENNEY (J.C.) FINANCE	0.00	0.00	0.00	0.00	133,812,000.00
PIPER JAFFRAY & HOP B	0.00	0.00	838,759.62	2,235.00	0.00
PIPER JAFFRAY & HOP S	1,674,387.50	3,481.50	0.00	0.00	0.00
PRUDENTIAL BACHE SECURITI	39,729,383.22	86,456.00	0.00	0.00	2,323,982,000.00
REPUBLIC NATL. BANK N.Y.	0.00	0.00	0.00	0.00	3,500,000.00
ROBERT W. BAIRD & CO	280,800.00	1,248.00	0.00	0.00	0.00
ROBINSON-HUMPHREY CO	1,345,937.50	3,285.00	0.00	0.00	0.00
SALOMON BROTHERS	34,170,409.76	109,740.00	82,525,848.43	235,269.00	4,031,245,000.00
SANFORD C. BERNSTEIN	41,580,589.38	93,098.00	0.00	0.00	0.00
SEARS ROEBUCK ACCEPTANCE	0.00	0.00	0.00	0.00	183,541,000.00
SHEARSON LEHMAN (BONDSTAT	0.00	0.00	31,113,200.00	67,375.00	0.00
SHEARSON LEHMAN AMER EXPR	0.00	0.00	43,613,917.88	69,844.50	0.00
SHEARSON/AMERICAN EXPRESS	16,779,629.50	86,502.50	0.00	0.00	0.00
SLOWTE WIESMAN	1,034,737.50	2,562.50	0.00	0.00	0.00
SMITH BARNEY & COMPANY	6,973,443.75	17,916.50	0.00	0.00	0.00
STATE BOARD OF INVESTMENT	0.00	0.00	0.00	0.00	1,326,000.00
SYNDICATION	5,000,000.00	0.00	13,623,718.75	0.00	0.00
THOMSON & MCKINNON	257,500.00	1,000.00	6,298,675.07	14,670.59	0.00
TUCKER ANTHONY & R.L. DAY	1,380,000.00	4,400.00	0.00	0.00	0.00
UNION BANK OF L.A.	0.00	0.00	0.00	0.00	14,925,000.00
W.E. POLLOCK & COMPANY IN	0.00	0.00	0.00	0.00	75,635,000.00
WEEDEN & COMPANY	21,968,680.38	58,984.25	0.00	0.00	0.00
WELLINGTON & CO.	36,116,718.87	85,395.50	0.00	0.00	0.00
WERTHEIM & COMPANY	5,691,800.00	20,215.00	0.00	0.00	0.00
WESTINGHOUSE CREDIT	0.00	0.00	0.00	0.00	188,062,000.00
WILSHIRE ASSOCIATES	13,223,987.05	27,566.00	0.00	0.00	0.00
WOOD GUNDY & COMPANY	567,825.00	1,921.00	0.00	0.00	0.00
ALL BROKERS COMBINED	842,450,739.60	1,905,909.82	430,324,059.58	1,054,051.39	50,638,959,370.30