



# 1987 ANNUAL REPORT

# MINNESOTA STATE BOARD OF INVESTMENT

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# MINNESOTA STATE BOARD OF INVESTMENT

**GOVERNOR RUDY PERPICH** 

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Assistant Executive Director

Beth Lehman

Assistant to the Executive Director

#### INTERNAL MONEY MANAGEMENT - STOCKS AND BONDS

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Equity and Fixed Income Manager

Mark Edwards

Senior Portfolio Manager

A. Arthur Kaese

Senior Portfolio Manager

N. Robert Barman

Investment Analyst, Senior Investment Analyst, Senior

Arthur M. Blauzda Harold L. Syverson

Head Security Trader

#### INTERNAL MONEY MANAGEMENT - CASH ACCOUNTS

Grant A. Feldman

Fixed Income Manager, Short Term

John T. Kinne

Senior Portfolio Manager

#### EXTERNAL MONEY MANAGEMENT

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Manager, External Equity Program

John Griebenow

Manager, Alternative Investment Program

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Deborah F. Griebenow

**Investment Analyst** 

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Office Services Supervisor II

Kathy Leisz

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Charlene Olson

Clerk Stenographer, Senior

Lin Nadeau

Clerk Typist II

Lavern Jagg

Clerk Typist I

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



# STATE OF MINNESOTA STATE BOARD OF INVESTMENT

Room 105, MEA Building 55 Sherburne Avenue Saint Paul 55155 (612) 296-3328

#### The Minnesota State Board of Investment is pleased to submit its 1987 Annual Report.

Fiscal year 1987 results represent the third consecutive year of exceptionally strong performance in the capital markets. Over this period, declining interest rates, low inflation, and steady economic growth have produced extraordinary returns on financial assets. To a great extent, the performance of the individual funds presented in this report reflect the favorable opportunities available in the capital markets.

#### 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 14.5%. Over the last three years the Basic Funds have generated a cumulative return of 92%, excluding alternative assets. These advances 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. (Refer to page 7.)
- The Post Retirement Fund generated earnings that will provide a permanent benefit increase of slightly more than 8% for eligible retirees. This is more than double the fiscal year 1987 inflation rate. The Post Fund continued to benefit from the high inflation-adjusted yields available in the bond market during recent years. (Refer to page 29.)
- The Board obtained new investment authority under legislation adopted during the 1987 legislative session. By raising the maximum allowable exposure to common stock and alternative investments, the Legislature gave the Board additional flexibility in designing investment strategies for the funds under its control. (Refer to page 77.)
- The Board undertook a comprehensive review of the investment program established for the Basic Retirement Funds. The resulting investment policy statement will guide the management of the Basic Funds in the coming years. The recommendations emerging from the study will not greatly affect the investment objectives or asset allocation previously established for the Basic Funds. However, important features will be introduced in the investment management structure utilized by the Funds. These new features will include a completeness fund in the common stock segment of the Basic Funds and a

- passively managed component in the bond segment of the Funds. (Refer to page 79.)
- Benchmark portfolios and performance based fees were implemented during fiscal year 1987. Each of the Board's external common stock managers is now evaluated and compensated based on their actual performance against a benchmark portfolio that reflects the manager's particular investment style. (Refer to page 81.)
- Pooled investment vehicles were introduced in the management of the State's cash accounts. These pools will provide greater operating efficiencies and should generate higher returns for the many small, individual accounts managed by the Board. (Refer to page 84.)

On June 30, 1987, the Board's portfolio totaled \$12 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 its 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 Minnesota State Board of Investment will continue to enhance the management and investment performance of the funds under its control.

Sincerely,

Roward Bakes

Howard J. Bicker Executive Director

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PART TWO of the Minnesota State Board of Investment's 1987 Annual Report contains financial statements and accounting data.

## INTRODUCTION

All investments undertaken by the Minnesota State Board of Investment (SBI) are governed by the common law prudent person rule and other standards codified in Chapter 11A of the Minnesota Statutes.

#### Prudent Person Rule

The prudent person rule requires all members of the Board, Investment Advisory Council, and SBI 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."

#### Authorized Investments

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 funds. 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.

#### Investment Policies

Within the requirements defined by state law, the State Board of Investment, in conjunction with SBI staff and the Investment Advisory Council, establishes investment policies for all funds under its management. These investment policies are tailored to the particular needs of each fund and specify investment objectives, risk tolerance, policy asset mix, and investment management structure.

In recent years, the Board, its staff, and the Investment Advisory Council have conducted detailed analyses of the investment policies of the Basic Retirement Funds, the Post Retirement Investment Fund, the Supplemental Investment Fund, and the Permanent School fund. The results of these studies represent the "roadmap" by which the SBI manages

# **INTRODUCTION**

these funds. The Board intends periodically to revise the investment policy established for each fund. Most recently, the Basic Retirement Funds' investment policy was thoroughly reviewed and updated.

The annual report is divided into two separate publications:

- This volume contains the text of the annual report. It describes the investment policies and performance for each of the funds managed by the SBI. It also contains statistical data on the Board's managers.
- The second volume contains financial statements and accounting data.

# FUNDS UNDER MANAGEMENT

BASIC RETIREMENT FUND

POST RETIREMENT FUND

SUPPLEMENTAL INVESTMENT FUND

VARIABLE ANNUITY FUND

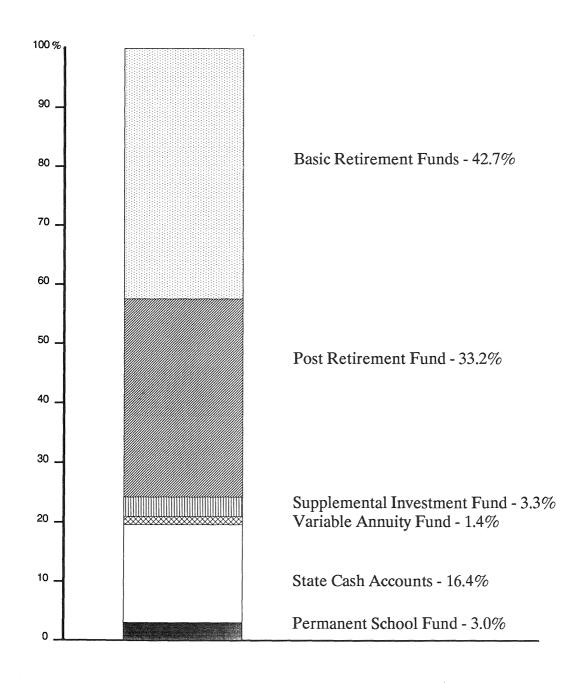
STATE CASH ACCOUNTS

PERMANENT SCHOOL FUND

# **FUNDS UNDER MANAGEMENT**

# **FUND COMPOSITION**

#### Fiscal Year 1987



# FUNDS UNDER MANAGEMENT

		Market Value June 30, 1987
<ul> <li>Public Employees Retirement Fund</li> <li>State Employees Retirement Fund</li> <li>Public Employees Police and Fire Fund</li> <li>Highway Patrol Retirement Fund</li> <li>Judges Retirement Fund</li> </ul>		\$ 5.1 billion
Post Retirement Investment Fund  The Post Retirement Investment Fund is composed or retirement benefits to be paid to currently retired employ retirement benefit increases are permitted based on exceedividends, interest, and net realized capital gains.	yees. Permanent	\$ 4.0 billion
Supplemental Investment Fund  The Supplemental Investment Fund includes the asser compensation plan, supplemental benefit arrangements, programs for local police and firefighters, and the unclass state. Participants have a choice among seven separate actinvestment emphases designed to meet a wide range of in objectives.	various retirement sified employees of the ecounts with different nvestor needs and	\$ 0.4 billion
<ul> <li>Income Share Account</li> <li>Growth Share Account</li> <li>Common Stock Index Account</li> <li>Bond Market Account</li> <li>Money Market Account</li> <li>Guaranteed Return Account</li> <li>Bond Account</li> </ul>	214 million 90 million 2 million 1 million 77 million 4 million 12 million	
Variable Annuity Fund  The Variable Annuity Fund is an investment option common stocks which formerly was offered to members of Retirement Association. It is not available to new members.	of the Teachers	\$ 0.2 billion
State Cash Accounts  These accounts are composed of high quality, short-te They include the Invested Treasurers Cash Fund, transportations miscellaneous cash accounts.	rm debt investments. ortation funds, and	\$ 2.0 billion
Permanent School Fund  The Permanent School fund is a trust established for the school fund is a trust established fun	he benefit of	\$ 0.4 billion
Minnesota public schools.		\$12.1 billion

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**INVESTMENT OBJECTIVES** 

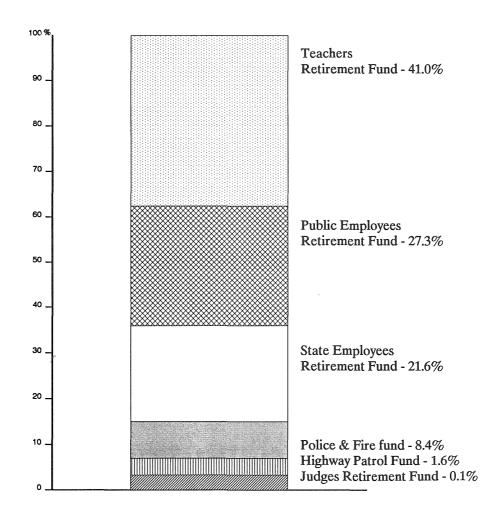
**ASSET ALLOCATION** 

**INVESTMENT MANAGEMENT** 

**INVESTMENT PERFORMANCE** 

# **COMPOSITION BY FUND**

#### Fiscal Year 1987



The \$5.1 billion Basic Retirement Funds are composed of the retirement assets for currently working participants in six major statewide retirement funds.

The figure on page 8 identifies the individual statewide retirement funds which comprise the Basic 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 participate in the Basic Funds.

#### **INVESTMENT OBJECTIVES**

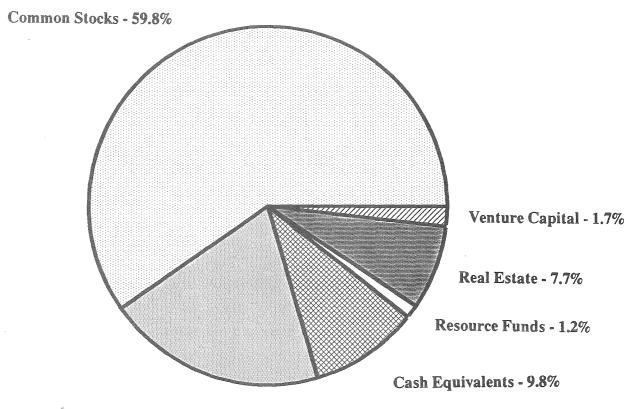
The State Board of Investment (SBI) pursues several investment objectives in the management of the Basic Funds' assets. In order of importance, those objectives are:

- To secure the benefits promised public employees covered by the statewide retirement funds
- To reduce employer/employee contributions and/or increase promised benefits
- To avoid excessive volatility in portfolio returns over the short-run

The Board's primary responsibility is to ensure that sufficient funds are available to finance promised benefits. However, other investment objectives are also important. Based upon the Basic Funds' adequate funding levels and participant demographics, its investment time horizon is quite long. This extended time horizon permits the Board to take advantage of the long-run return opportunities offered

# 1987 FISCAL YEAR-END ASSET MIX

#### **Percent of Market Value**



Bonds - 19.8%

	\$MILLION	ACTUAL	POLICY
COMMON STOCKS	\$3,070	59.8%	60.0%
BONDS	1,016	19.8	22.0
CASH EQUIVALENTS*	506	9.8	3.0
ALTERNATIVE ASSETS:			
Real Estate	396	7.7	10.0
Venture Capital	86	1.7	2.5
Resource Funds	63	1.2	2.5
TOTAL	\$5,137	100.0%	100.0%

<sup>\*</sup>includes cash uncommitted to long-term assets plus cash held by all external managers

by the capital markets. Historical evidence strongly supports the position that long-run investment results are highly correlated with short-run volatility of returns. Thus, the Board seeks to reduce the cost of pension funding through an aggressive, high expected return investment policy which incorporates a sizable equity component. The Board is cognizant, however, that excessive short-run return volatility is undesirable. As a result, the Basic Funds' investment policy also is designed to limit extreme portfolio return results.

#### ASSET ALLOCATION

The allocation of assets among common stocks, bonds, cash equivalents, and alternative investments can have a dramatic impact on investment results. In fact, asset allocation decisions overwhelm the impact of individual security selection within a total portfolio. Consequently, the Board has focused considerable attention on the selection of an appropriate long-term asset mix for the Basic Funds.

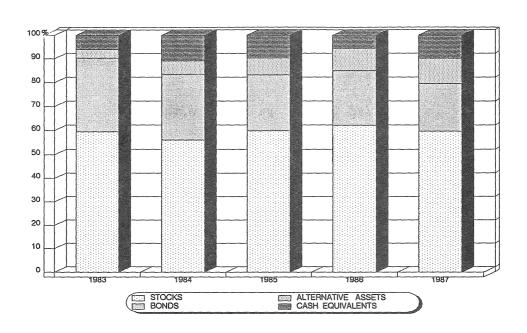
Policy Asset Mix Based on the Basic Funds' investment objectives and the expected long-run performance of the capital markets, the Board has adopted the following policy (long term) asset allocation for the Basic Funds:

•	Common Stocks	60.0%
•	Bonds	22.0%
•	Cash Equivalents	3.0%
•	Real Estate	10.0%
•	Venture Capital	2.5%
	Resource Funds	2.5%

The figure on page 10 presents the actual asset allocation of the Basic Funds at the end of the 1987 fiscal year. Historical data on the Basic Funds' actual asset mix over the last five years are also displayed in the figure on page 12.

# HISTORICAL ASSET MIX

Percent of Market Value Fiscal Year-End Allocations



	1983	1984	1985	1986	1987
COMMON STOCKS					
\$Million	1,872.0	1,696.0	2,209.0	2,838.0	3,070.0
Percent	59.5	56.1	59.9	62.2	59.8
BONDS					
\$Million*	970.0	829.0	865.0	1,041.0	1,016.0
Percent	30.8	27.4	23.4	22.8	19.8
CASH EQUIVALENT	rs*				
\$Million	188.0	331.0	355.0	253.0	506.0
Percent	6.0	10.9	9.6	5.6	9.8
REAL ESTATE					
\$Million	96.0	140.0	203.0	330.0	396.0
Percent	3.1	4.6	5.5	7.2	7.7
VENTURE CAPITAL	1				
\$Million	0.0	4.0	34.0	65.0	86.0
Percent	0.0	0.2	0.9	1.4	1.7
RESOURCE FUNDS					
\$Million	19.0	23.0	34.0	65.0	86.0
Percent	0.6	0.8	0.7	0.8	1.2
TOTAL FUND					
\$Million	3,145.0	3,023.0	3,691.0	4,564.0	5,137.0
Percent	100.0	100.0	100.0	100.0	100.0

<sup>\*</sup>includes cash uncommitted to long-term assets plus cash held by all external managers

#### Total Return Vehicles

The SBI invests the majority of the Basic Funds' assets in common stocks. This large allocation is consistent with the investment time horizon of the Basic Funds and the advantageous long-term risk-return characteristics of common stocks. The rationale underlying the venture capital allocation is similar. However, the relatively small size of the venture capital market limits the allocation to this asset class.

The Board recognizes that this sizable policy allocation to common stock and venture capital likely will produce more volatile portfolio returns than a more conservative, higher fixed income allocation policy. It is understood that this policy may result in quarters or even years of disappointing results. Nevertheless, the long-run return benefits of this policy are expected to more than compensate for the additional volatility.

### Inflation Hedge

The Board includes other asset classes in the Basic Funds' asset mix both to protect against debilitating economic environments and to diversify the portfolio sufficiently to avoid excessive return volatility. Real estate and resource fund investments provide an inflation hedge that other financial assets cannot offer. In a period of rapidly rising prices, these "hard" assets can be expected to appreciate in value at a rate at least equal to the inflation rate. Further, even under normal financial conditions, the returns on these assets are not highly correlated with common stocks. Thus, their inclusion in the portfolio serves to dampen return volatility.

## Deflation Hedge

The fixed income component of the Basic Funds' total portfolio (bonds and cash equivalents) acts as a hedge against a deflationary economic environment. In the event of a major deflation, high-quality fixed income assets, particularly long-term bonds, will not only protect principal but generate significant capital gains as well. And, like real estate and resource funds, under normal financial conditions fixed income securities help to diversify the Basic Funds' total portfolio, thereby controlling return volatility.

#### **INVESTMENT MANAGEMENT**

Common Stock Segment The SBI utilizes a two-part approach to the management of the Basic Funds' \$3.2 billion common stock portfolio:

- a large passive portfolio (i.e., an index fund)
- a smaller group of 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 Board'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 Board seeks above-market returns through the active management of the remaining common stock assets.

The actively managed segment of the Basic Funds' common stock portfolio is designed to complement the core index fund. With the index fund providing adequate diversification for the Basic 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 many elements of the common stock portfolio conform to the Basic Funds' investment policy. **Performance benchmarks** have been

established for each of the Board's managers. These benchmarks enable the SBI to more effectively evaluate the managers' decision-making, both individually and in aggregate, with respect to risk incurred and returns achieved.

A description of each common stock manager's investment approach is included in the Manager Summary section. Their portfolio characteristics are included in the Statistical Data Appendix.

Bond Segment The Basic Funds' \$1.1 billion bond portfolio is managed by six external bond managers. This group of bond managers was selected for its blend of investment styles. Each of the managers invests in high-quality, fixed income securities. The managers vary, however, in the emphasis they place on interest rate anticipation and in the manner in which they approach issue selection and sector weighting decisions.

In keeping with the objective of utilizing the bond portfolio as a deflation hedge, the managers are restricted regarding the minimum average life of their portfolios. This requirement is designed to prevent the Basic 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 Board also constrains the maximum average life of the managers' portfolios.

All of the SBI's bond managers pursue active investment approaches. However, the Board has approved the use of passive management in the Basic Funds' bond portfolio. The SBI expects to construct a bond index fund during fiscal year 1988.

A description of each bond manager's investment approach is included in the Manager Summary section. Their portfolio characteristics are presented in the Statistical Data Appendix.

#### Cash Equivalents

The long-term asset mix of the Basic Funds targets a 3% allocation to cash equivalents. Given the long-run objectives of the Basic Funds and their limited liquidity needs, the Board believes that a minimal commitment to short-term investments is most appropriate. The cash equivalents allocation is based on the expectation that at any given time it is quite likely that some cash reserves will be present in the Basic Funds' total portfolio. Cash equivalent holdings are derived from two sources:

- New contributions provided by the retirement funds which have yet to be allocated to a specific long-term asset segment
- 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 Funds' master custodian. The STIF is a separate account invested under the same state statutes which guide all of the SBI's short-term investments.

#### Real Estate Investments

The Board allocates 10% of the Basic Funds for investment in real estate. State law authorizes the SBI to invest in real estate through commingled funds, limited partnerships, and trusts. Each of the Board's real estate investments involve at least four other participants. In addition, the Board's investment may not exceed 20% of a given commingled fund, partnership, or trust. State statutes do not permit investment in real estate through direct investments, separate accounts, or individual transactions.

The Board has adopted a three-part program to implement the real estate 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
- 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 at least market returns. The broad diversification of the core portfolio enables the SBI to implement the third part of the 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.

Prospective real estate managers are reviewed and selected based on the managers' experience, investment strategy, and performance history.

The SBI continued to make progress toward its policy allocation to real estate during fiscal year 1987. New commitments were made to three 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 each real estate manager's investment approach is included in the Manager Summary section.

Venture Capital Investments The Board allocates 2.5% of the Basic Funds to investment in venture capital. Under state law, the SBI is authorized to invest in venture capital through limited partnerships and corporations. As with real estate investments, each venture capital investment must involve at least four other investors. Further, the Board's maximum

investment size is 20% of a particular limited partnership or corporation.

Like the real estate portfolio, the SBI maintains a broadly diversified venture capital portfolio. 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.

Prospective venture capital managers are reviewed and selected based primarily on the managers' experience, investment strategy, diversification potential, and performance history.

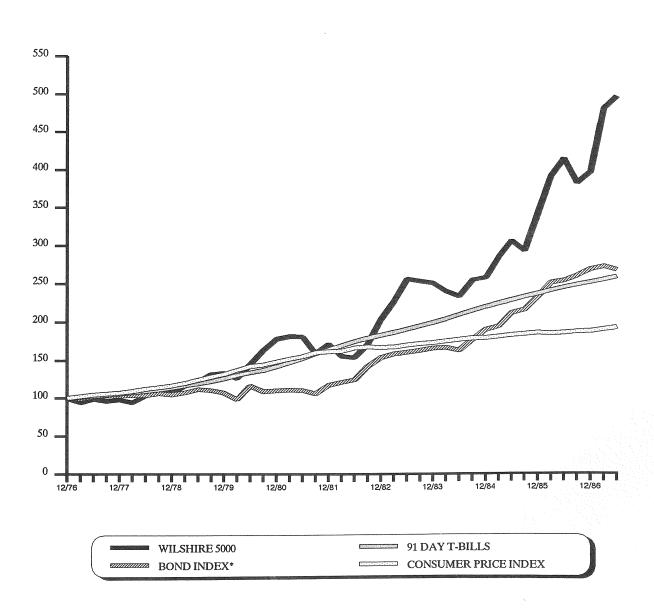
The Board's policy allocation to venture capital essentially was attained in fiscal year 1986. The Board intends to make additional commitments in future years as the growth of the Basic Retirement Funds warrants the expansion of the venture capital portfolio, and as the existing commitments begin to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

A description of each venture capital manager's investment approach is included in the Manager Summary section.

Resource Fund Investments The Board allocates 2.5% of the Basic Funds' assets for investment in oil and gas partnerships. The SBI invests in partnerships structured specifically for tax-exempt investors. Again, there must be four other participants in each of the SBI's resource investments and the Board may invest no more than 20% of a partnership'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 selected through procedures similar to those used to evaluate real estate and venture capital investments.

# PERFORMANCE OF CAPITAL MARKETS Cumulative Returns 1977 - 1987



<sup>\*</sup>Merrill Lynch Master Index through 12/79; Salomon Broad Investment Grade Bond Index 1/80 - 6/87

During the 1987 fiscal year, the Board continued to search for new resource investments. Only one of several possible investments was selected. The considerable uncertainty in the energy market and the financial shake-out which has been occurring there for several years has created the potential for profitable investment opportunities. However, the Board found it difficult to identify investments whose terms and assumptions properly reflected the decline in energy prices. The Board plans to continue to review quality resource investments for possible inclusion in the Basic Funds' portfolio.

A description of each resource fund manager's investment approach is included in the Manager Summary section.

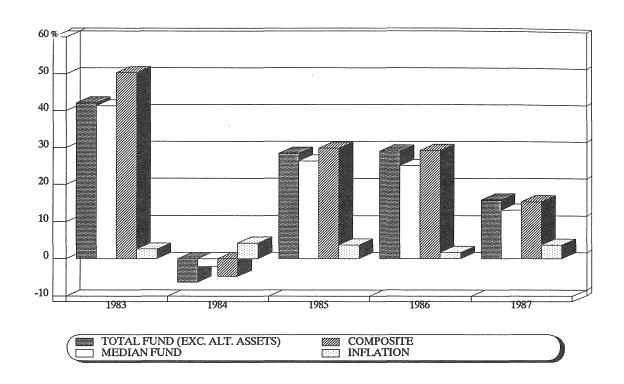
#### INVESTMENT PERFORMANCE

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

Given the long-term investment time horizon of the Basic Funds, the performance evaluation time period is necessarily long-term as well. Recognizing that excessive attention to performance in the short-run can be counterproductive. the SBI 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 the Board's investment program are made over a considerably longer period.

# TOTAL FUND PERFORMANCE

Fiscal Years 1983 - 1987



						(Annualized)	
	1983	1984	1985	1986	1987	3 YR.	5 YR.
TOTAL FUND							
(incl.)*	40.5%	-5.5%	26.8%	26.2%	14.5%	22.4%	19.5%
(excl.)	42.1	-6.3	28.4	29.0	15.8	24.3	20.6
Median Fund**	41.3	-2.1	26.3	25.1	13.1	22.8	20.6
Composite***	50.3	-4.7	29.8	29.2	15.4	24.6	22.6
Inflation	2.6	4.2	3.7	1.7	3.7	3.1	3.2

<sup>\*</sup> includes alternative assets: real estate, venture capital and resource funds

<sup>\*\*</sup> Wilshire Assoc. Trust Universe Comparison Service (TUCS) median tax-exempt balanced portfolio

<sup>\*\*\* 50/45/5</sup> Wilshire 5000/Salomon Broad Investment Grade Bond Index/91 Day T-Bills composite through 12-31-82, 65/30/5 composite thereafter

#### Risk-Return Objectives

The Basic Funds' multi-manager structure requires that investment performance be evaluated on two distinct levels:

- Total Fund. The use of total fund risk-return targets ensures that long-run strategic decisions which affect the total performance of the Basic Funds are implemented in a manner consistent with their investment policy.
- Individual Managers. Risk-return objectives for the individual managers are designed to ensure that they adhere to their assigned investment roles and to permit an evaluation of the value they add to the SBI's investment program.

#### Total Fund Risk-Return Objectives

To a significant degree, the risk level of the total fund is set implicitly when the policy asset mix and investment management structure are determined. Given the adequate funding levels and long-term investment time horizons of the Basic Funds, the Board believes an above-average risk posture is appropriate.

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 SBI's risk target is implemented through the long-term commitment of a sizable portion of the Basic Funds' assets to common stocks.

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

- Composite Index. The returns produced by the total portfolio are expected to exceed those derived from a composite of 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.
- Median Tax-Exempt Fund. 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.

Individual Manager Risk-Return Objectives Two primary long-run risk objectives have been established for the Basic 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 manager's 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 manger 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.

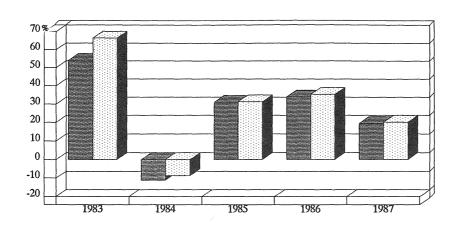
The SBI evaluates the common stock managers' returns against the performance of customized indices constructed to represent the managers' specific investment approaches. These custom indices are commonly referred to as "benchmark portfolios." The benchmark portfolios take into account the equity market forces that at times favorably or unfavorably impact certain investment styles. Thus, the benchmarks are more appropriate bogeys against which to judge the managers' performances than are broad market indices.

The SBI constrains the risk of the **bond** managers' portfolios 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.

The bond managers' investment styles are more broad-based than those of the common stock managers. Thus, the benchmark portfolio currently used to evaluate the bond mangers is the Salomon Broad Investment Grade Bond Index, which represents the performance of essentially the entire investment-grade 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

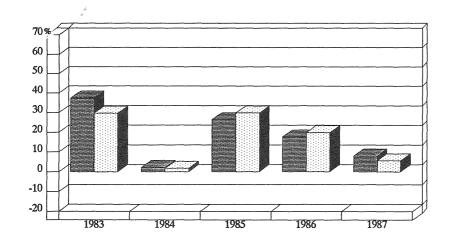
## **COMMON STOCK SEGMENT PERFORMANCE** Fiscal Years 1983 - 1987

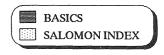




						(Annua	lized)
	1983	1984	1985	1986	1987	3 YR.	5 YR.
STOCK SEGMENT	54.1%	-11.1%	30.9%	33.8%	19.4%	27.9%	23.4%
Wilshire 5000	66.5	-8.7	31.2	35.3	20.1	28.6	26.5

### **BOND SEGMENT PERFORMANCE Fiscal Years 1983 - 1987**





						(Annua	ilizea)
	1983	1984	1985	1986	1987	3 YR.	5 YR.
BOND SEGMENT	37.4%	2.2%	26.4%	17.6%	7.9%	17.1%	17.6%
Salomon Index*	29.7	1.8	29.9	19.9	5.6	18.0	16.8

effective performance evaluation. In the future, as markets for these assets become more institutionalized, the SBI will fully integrate these assets into its performance analysis.

#### Total Fund Performance

The Basic Funds' risk objectives are implicitly met by attaining the targeted policy asset mix. Progress toward fulfillment of the Board's policy asset mix target continued during fiscal year 1987. The common stock and bond targets have been achieved. Primary activity has centered around the Basic Funds' alternative investment programs. New commitments were made to real estate 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.

With respect to **return objectives**, fiscal year 1987 was an excellent period of performance for the Basic Funds, primarily due to the strong returns of the stock market. The stock market, as represented by the Wilshire 5000, moved to record highs, generating a 20.1% total return for the year. The bond market, hindered by rising interest rates in the latter half of the fiscal year, produced mediocre returns. For the year, the bond market, as represented by the Salomon Broad Investment Grade Bond Index, generated a 5.6% total rate of return.

The Basic Funds' total portfolio generated a 14.5% total rate of return for fiscal year 1987. (Excluding alternative investments, the portfolio produced a 15.8% return). Fiscal year 1987 results represent the third consecutive year of exceptionally strong performance. Over this period, declining interest rates, low inflation, and steady if produced have unspectacular economic growth Excluding extraordinary returns on financial assets. alternative investments, the Basic Funds' cumulative three-year return is 91.8%.

Relative to established total fund performance objectives, the Basic Funds performed well. The Basic Funds' portfolio return substantially surpassed the return on the median tax-exempt fund. Further, the Basic Funds slightly exceeded the return on its policy asset mix performance target.

# **MANAGER PERFORMANCE**

#### Fiscal Year 1987

	TOTAL PORTFOLIO RETURN
COMMON STOCK MANAGERS	
Fred Alger	7.1%
Alliance Capital	23.6
Beutel Goodman	17.1
BMI Capital	20.7
Forstmann Leff	12.3
Hellman Jordan	23.1
IDS Advisory	19.3
Investment Advisers	18.1
Lieber & Company	7.3
Peregrine Capital	18.3
Waddell & Reed	19.3
Internal Manager	26.3
Wilshire Associates (Index Fund)	20.3
Basic Funds' Common Stock Segment	19.4%
Stock Segment Performance Standards	
Wilshire 5000	20.1%
TUCS Median Managed Equity Portfolio	19.4
Inflation	3.7
BOND MANAGERS	
Investment Advisers	5.2%
Lehman Management	5.2
Miller, Anderson & Sherrerd	14.0*
Morgan Stanley	7.4
Peregrine Capital	7.3
Western Asset	6.2
Basic Funds' Bond Segment	7.9%
<b>Bond Segment Performance Standards</b>	
Salomon Broad Investment Grade Bond Index	5.6%
TUCS Median Managed Bond Portfolio	5.8
Inflation	3.7

<sup>\*</sup> performance reflects positive impact of pricing adjustment in 4Q 1986.

Performance relative to total fund targets is presented on page 21.

Individual Manager Performance The external **common stock managers** successfully fulfilled their long-term risk objectives during fiscal year 1987. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of diversification.

From a return perspective, the active common stock managers' results were mixed. In aggregate, the managers added modest value to their individual benchmarks. Most managers performed in a relatively narrow band around their benchmarks. Two managers (Alliance Capital and BMI Capital) experienced very strong results and two managers (Fred Alger Management and Beutel Goodman Capital) produced very weak performance relative to their benchmarks. As expected, the index fund essentially matched the performance of the Wilshire 5000 for the year.

During fiscal year 1987, the **bond managers** fulfilled their assigned long-term risk targets. Portfolio quality and maturities were maintained in the specified ranges.

The bond managers' rate of return results were generally favorable during the fiscal year. In aggregate, they outperformed their benchmark by a substantial margin. Aggregate returns were somewhat overstated due to a pricing adjustment in the Miller Anderson account. Nevertheless, the defensive stance held by most of the managers paid off during the latter half of the year when interest rates rose.

Performance data for the individual common stock and bond managers are presented on page 26.

# POST RETIREMENT FUND

**INVESTMENT OBJECTIVES** 

**ASSET ALLOCATION** 

**INVESTMENT MANAGEMENT** 

**INVESTMENT PERFORMANCE** 

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 Post Fund finance monthly annuities paid to retirees. These annuities may be adjusted upwards based on the earnings of the Post Fund. On June 30, 1987, the Post Fund had a market value of \$4.0 billion and over 50,000 retiree participants.

#### **INVESTMENT OBJECTIVES**

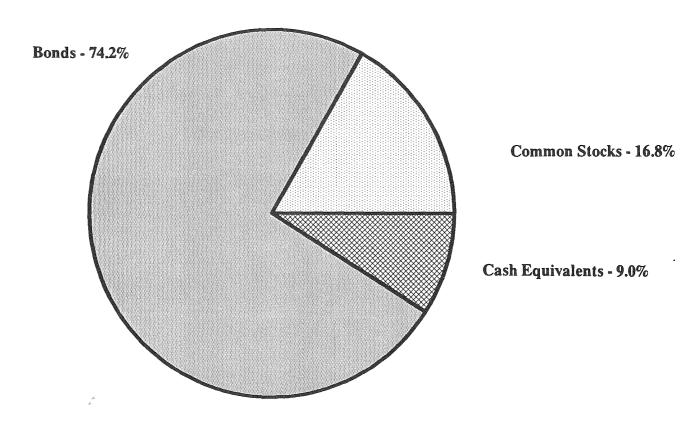
Public employees participating in the statewide retirement plans are promised benefits based on their total years of service and their "high five" average salaries. Upon the employees' retirement, sums of money sufficient to finance fixed monthly annuities are transferred from accumulation pools in the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

The State Board of Investment (SBI) pursues two investment goals for the Post Fund:

- To produce annual earnings sufficient to maintain promised benefits at current levels
- To generate additional earnings which allow benefits to be increased at a rate which compensates, to some degree, for inflation

### 1987 FISCAL YEAR-END ASSET MIX

#### **Percent of Market Value**



	\$MILLION	PERCENT
COMMON STOCKS	\$673	16.8%
BONDS	2,965	74.2
CASH EQUIVALENTS	359	9.0
TOTAL	3,997	100.0%

The Board views the first of these two objectives as being of primary importance. Furthermore, to achieve these two objectives, the SBI recognizes that the Post Fund requires a completely different investment approach than that applied to the Basic Retirement Funds.

The ability of the Post Fund to maintain current benefit levels and provide future benefit increases depends upon its earnings. State statutes define earnings for the Post Fund as interest and dividend income as well as realized equity and fixed income capital gains (or losses). Unrealized capital gains (or losses) have no 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.

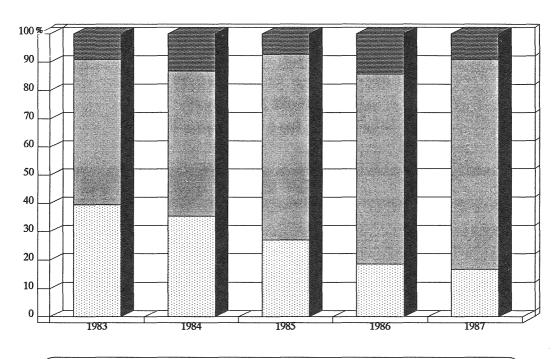
As a result, the Post Fund is not oriented toward long-term total rate of return maximization. Rather, the SBI attempts to generate a high, consistent stream of earnings for the Post Fund that will maintain current benefits, as well as produce benefit increases over time.

#### ASSET ALLOCATION

The Board has designed the asset mix of the Post Fund to generate the sizable stable earnings stream referred to in the previous section. The Post Fund's year-end asset mix, as well as its historical asset allocation data, are presented on pages 32 and 34.

Dedicated Bond Portfolio The SBI invests the majority of the Post Fund's assets 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 Post 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.

# HISTORICAL ASSET MIX Percent of Market Value Fiscal Year-End Allocations



EBB COMMON STOCKS BONDS CASH EQUIVALE					UIVALENTS
Ž.	1983	1984	1985	1986	1987
<b>COMMON STOCKS</b>					
\$Million	693.0	657.0	733.0	681.0	673.0
Percent	39.5	35.5	27.1	18.6	16.8
BONDS					
\$Million	903.0	951.0	1,780.0	2,457.0	2,965.0
Percent	51.5	51.4	65.7	67.2	74.2
CASH EQUIVALENTS					
\$Million	157.0	243.0	196.0	520.0	359.0
Percent	9.0	13.1	7.2	14.2	9.0
TOTAL FUND					
\$Million	1,753.0	1,851.0	2,709.0	3,658.0	3,997.0
Percent	100.0	100.0	100.0	100.0	100.0

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

# Common Stocks

While bonds represent the largest asset class in the Post Fund's total portfolio, common stocks also play an important role. Common stocks provide the Post 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

Cash equivalents make up the remainder of the Post Fund's portfolio. Because the Post Fund's liquidity needs are very predictable, the SBI generally maintains a very small cash equivalents allocation. However, large cash flows into the Post Fund, which frequently occur at fiscal year-end, give a distorted view of the Post Fund's normal allocation to the segment.

#### Changes in Asset Mix

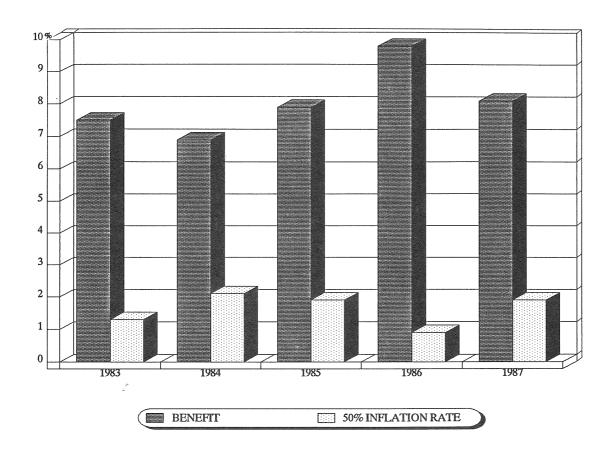
During fiscal year 1987, the asset mix of the Post Fund continued to shift toward bonds and away from common stocks. The substantial interest rate decline of recent years necessitated an increase in the size of the dedicated bond portfolio and a concomitant reduction in the size of the common stock portfolio. With lower interest rates, new cash flows into the Post Fund are invested at lower yields than in the recent past. If interest rates remain at 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 Fund is managed solely by SBI staff. The Board employs this management structure for two reasons:

### BENEFIT INCREASES VERSUS INFLATION

#### Fiscal Years 1983 - 1987



						(Annualized)		
	1983	1984	1985	1986	1987	3 YR.	5 YR.	
BENEFIT INCREASE	7.5%	6.9%	7.9%	9.8%	8.1%	8.6%	8.0%	
50% Inflation Rate	1.3	2.1	1.9	0.9	1.9	1.6	1.6	

- Dedicated Bond Portfolio. The low turnover, limited discretion nature of the dedicated bond portfolio makes bond management by SBI staff cost effective.
- Investment Constraints. With respect to common stock management, the Post 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 Post Fund's unique investment requirements. SBI staff, on the other hand, has operated under these constraints since the Post Fund's inception.

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

#### Bond Management

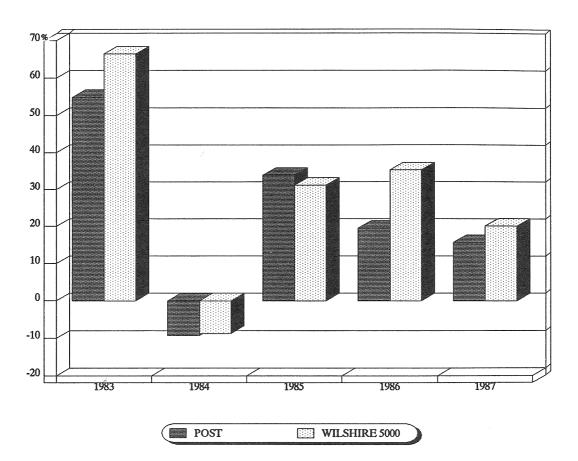
The management of the dedicated bond portfolio requires that the State's actuary supply SBI staff with forecasts of benefit payments expected to be paid over a twenty-five year horizon. Based upon these forecasts, a computer program generates a list of bonds that will meet these forecasted benefits.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

#### Common Stock Management

The focus of SBI staff's common stock management is long-term, value-based stock selection. Staff generally implements less aggressive investment strategies than those utilized by the Basic Retirement Funds' external equity managers. As the only common stock manager for the Post Fund, staff recognizes the diversification requirements of the Post Fund's stock portfolio. Further, SBI staff is aware of the Post Fund's need to avoid investment strategies which generate high portfolio turnover and which, at times, could result in sizable realized losses.

#### **COMMON STOCK SEGMENT PERFORMANCE**

### **Fiscal Years 1983 - 1987**



	1983	1984	1985	1986	1987	(Annua 3 YR.	lized) 5 YR.
STOCK SEGMENT	54.9%	-9.3%	33.9%	19.5%	15.7%	22.8%	21.0%
Wilshire 5000	66.5	-8.7	31.2	35.3	20.1	28.6	26.5

SBI staff attempts to identify stocks that have attractive expected returns, yet do not possess significantly high levels of market volatility. Staff uses recommendations generated by quantitative valuation models as the primary source of investment candidates. Staff always maintains a fully invested position in the equity portfolio.

#### **INVESTMENT PERFORMANCE**

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

Total Fund Risk-Return Objectives

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

- Actuarial Assumptions. In order to finance promised benefit payments, the Post Fund must generate a level of interest and dividend income which, combined with realized net capital gains, meets the Post Fund's actuarial assumptions of 5% per year.
- Benefit Increase Level. The Post Fund is expected to produce additional earnings sufficient to allow benefits to increase at a rate equal to at least one-half of the inflation rate.
- Common Stock Rate of Return. The total rate of return on the Post Fund's actively managed common stock portfolio is expected to exceed the performance of the Wilshire 5000.

Total Fund Performance

The Post Fund's total portfolio met all of the prescribed risk targets during the 1987 fiscal year. The Post Fund was approximately 75% invested in fixed income assets, with an average quality rating of AAA. The Post Fund's common stock portfolio maintained a slightly above average level of

relative market volatility and was consistently well-diversified.

Overall, investment returns relative to performance objectives were satisfactory for the 1987 fiscal year. The Post Fund generated income and realized net capital gains in excess of the amount needed to fund promised benefits. The surplus earnings will permit a benefit increase of 8.1%, considerably above the fiscal year 1987 inflation rate of 3.7%.

Common stock performance, on a relative basis, was disappointing. The contrarian value style pursued by the Post Fund's internal equity manager did not perform well. For the fiscal year, the common stock component failed to outperform its benchmark, the Wilshire 5000.

As shown on page 36, the Post Fund has generated benefit increases of 8.0% on an annualized basis for the last five years. During this period, investment returns were high compared to inflation, which increased at an annualized rate of 3.2%. The formula used to compute benefit increases was revised in 1980. During the eight years since the revised formula was instituted, benefit increases have been 7.2% on an annualized basis. This compares to an annualized inflation rate of 5.8% for the same period.

Post Fund performance data for the most recent fiscal year, as well as the last five years, are presented on pages 36 and 38.

INCOME SHARE ACCOUNT
GROWTH SHARE ACCOUNT
COMMON STOCK INDEX ACCOUNT
BOND MARKET ACCOUNT
MONEY MARKET ACCOUNT
GUARANTEED RETURN ACCOUNT
BOND ACCOUNT

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 Supplemental 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, 1987, the market value of the entire fund was \$401 million.

Fund Structure A wide diversity of investment goals exists among the Supplemental Fund's participants. In order to meet those needs, the Supplemental 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 statutory requirements and rules established by the participating organizations. Participation in the Supplemental Fund is accomplished through the purchase or sale of shares in each account.

# Range of Investment Options

In previous years, most participants in the Supplemental Fund had three different investment options:

- Income Share Account, a balanced portfolio of stocks and bonds
- Growth Share Account, a portfolio consisting entirely of common stocks
- one of two debt-related accounts, the Fixed Return Account for individuals, or the Bond Account for retirement plans

At the request of the State Board of Investment (SBI), legislation was passed during the 1986 legislative session to expand the range of options available to participants. As a result, three new accounts were available to most participants beginning in fiscal year 1987:

- Common Stock Index Account, a passively managed common stock portfolio
- Bond Market Account, an actively managed fixed income portfolio
- Guaranteed Return Account, an investment option utilizing guaranteed investment contracts (GIC's)

In addition, the Fixed Return Account was converted to the Money Market Account, reflecting modifications in investment objectives.

#### Share Values

Each account in the Supplemental Fund establishes a share value and participants may buy or sell shares monthly, based on the most recent unit value.

In the Income Share Account, the Growth Share Account, the Common Stock Index Account, and the Bond Market Account, shares are priced monthly based on the market value of the entire account. Individuals measure the performance of these accounts 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 Money Market Account, the Bond Account, and the Guaranteed Return Account, share values remain constant and the accrued interest income is credited to the accounts through the purchase of additional shares at predetermined intervals.

The investment returns shown in this report are calculated using a time-weighted rate of return formula. These returns may differ slightly from calculations based on share values, due to the movement of cash flows in and out of the accounts.

#### Fund Management

In many cases, the Supplemental Fund shares investment managers with the Basic Retirement Funds through participation 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 SBI. Participation in the Combined Investment Funds provides the Supplemental Fund with the same flexibility and efficiency of investment management afforded the Basic Funds.

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

#### INCOME SHARE ACCOUNT

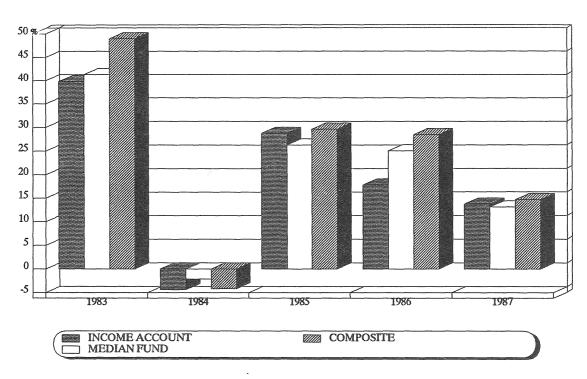
# Investment Objectives

The \$214 million Income Share Account resembles the Basic Retirement Funds in terms of investment objectives. The Income Share Account seeks to maximize long-term inflation-adjusted rates of return. The Income Share 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 SBI invests the Income Share Account in a balanced portfolio of common stocks and fixed income securities. The Income Share Account's

#### **INCOME SHARE ACCOUNT**

**Total Account Performance Fiscal Years 1983 - 1987** 



						(Annualized)	
	1983	1984	1985	1986	1987	3 YR.	5 YR.
TOTAL ACCOUNT	39.8%	-4.4%	28.8%	17.8%	13.7%	20.0%	18.2%
Median Fund*	41.3	-2.1	26.3	25.1	13.1	22.8	20.6
Composite**	49.0	-4.2	29.7	28.5	14.7	24.1	22.2
STOCK SEGMENT	53.7	-11.0	30.4	19.9	18.4	22.8	20.5
Wilshire 5000	66.5	-8.7	31.2	35.3	20.1	28.6	26.5
BOND SEGMENT	36.2	2.3	32.1	16.2	7.6	18.2	18.1
Bond Index***	29.7	1.8	29.9	19.9	5.6	18.0	16.8

<sup>\*</sup> TUCS Median tax-exempt balanced portfolio

<sup>\*\* 50/45/5</sup> Wilshire 5000/Salomon Broad Investment Grade Bond Index/91 day T-Bills Composite through 12-31-82, 60/35/5 Composite thereafter

<sup>\*\*\*</sup> Salomon Broad Investment Grade Bond Index

policy asset allocation calls for the following long-term asset mix:

- 60% common stocks
- 35% bonds
- 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. Approximately three-quarters of the common stock segment is passively managed by an external money manager. SBI staff actively manages the balance of the common stock segment and all of the fixed income component.

Wilshire Associates, the Board's index fund manager, manages the passive component of the common stock segment. The Income Share Account participates in the index fund segment of the Combined Investment Funds. As discussed in the Basic Funds section, an index fund is designed to match the performance of a broad market index. Staff manages the internal portion of the common stock portfolio with a value-oriented approach, under which quantitative valuation models are used to determine stock selection.

#### Investment Performance

Similar to the other SBI funds which utilize a multi-manager investment structure, the Board evaluates the performance of the Income Share Account on two levels:

 Total Account. The Income Share Account is expected to exceed the returns of a composite of market indices weighted in the same proportion as its policy asset allocation. In addition, the Income Share Account's performance is expected to exceed the performance of the median fund from a universe of other balanced funds.

• Individual Manager. The passive stock manager is expected to track closely the performance of the Wilshire 5000. Performance objectives for the internal stock manager are described in the Post Retirement Investment Fund discussion. The internal bond manager of the Income Share Account is expected to exceed the performance of the Salomon Broad Investment Grade Bond Index.

On a total account basis, the Income Share Account exceeded the performance of the median balanced fund manager but failed to outperform its market index composite. The index fund manager met its performance objectives. The internal bond manager surpassed its performance target, but the internal common stock manager underperformed its performance target. Total account results are presented on page 46.

#### **GROWTH SHARE ACCOUNT**

#### Investment Objectives

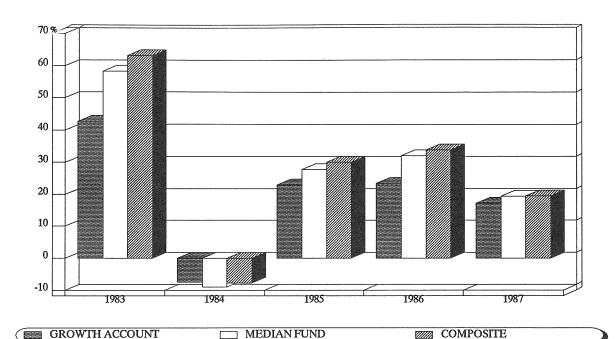
The Board has established above-average capital appreciation as the primary investment objective of the \$90 million Growth Share Account. To achieve this objective, the Account maintains a large equity exposure. The Growth Share Account's policy asset allocation calls for a large equity exposure:

- 95% common stocks
- 5% cash equivalents

The small cash equivalents component represents the normal cash reserves held by the Growth Share Account as a result of new contributions not yet allocated to common stocks. The Growth Share Account's asset mix may vary from its assigned policy allocation at times, depending on the Account managers' near-term outlook for the capital markets.

### **GROWTH SHARE ACCOUNT**

**Total Account Performance Fiscal Years 1983 - 1987** 



			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
	1983	1984	1985	1986	1987	(Annua) 3 YR.	alized) 5 YR.
TOTAL FUND Median Fund* Composite**	42.7%	-7.5%	22.9%	23.4%	17.2%	21.0%	18.5%
	58.5	-8.2	28.3	32.8	19.4	27.2	25.6
	63.2	-7.8	30.0	33.8	19.4	27.6	25.6
STOCK SEGMENT	56.7	-17.9	28.1	24.0	17.4	23.1	19.1
Wilshire 5000	66.5	-8.7	31.2	35.3	20.1	28.6	26.5

<sup>\*</sup> TUCS Median Managed Equity Portfolio

<sup>\*\* 95/5</sup> Wilshire 5000/91 Day T-Bills Composite

Because of its substantial common stock policy allocation, the Growth Share Account's returns are more variable than those of the balanced Income Share Account. The Board expects higher long-run returns from the Growth Share Account's investments to compensate for the additional variability of returns.

#### Investment Management

The SBI has assigned approximately two-thirds of the Growth Share Account's common stock portfolio to external managers and one-third to SBI staff. The staff manages the internal component with a long-term, value-oriented approach. The externally managed assets are managed by the Board's active equity managers through the Growth Share Account's participation in the common stock segment of the Board's Combined Investment Funds.

The allocation of externally-managed assets to active common stock managers, as opposed to an index fund, reflects the more aggressive investment policy of the Growth Share Account.

# Investment Performance

Like the Income Share Account, the Board evaluates the performance of the Growth Share Account on two levels:

- Total Account. The Growth Share Account is expected to exceed the returns of a composite of market indices weighted in the same proportion as its policy asset allocation. The Account's performance is also expected to surpass the performance of the median portfolio from a universe of managed equity portfolios.
- Individual Manager. Performance objectives for the external managers are described in the Basic Retirement Funds discussion. Performance objectives for the internal manager are included in the Post Retirement Fund discussion.

The Growth Share Account failed to meet its total account and individual manager performance targets in fiscal year 1987. Total account results are shown on page 49.

#### COMMON STOCK INDEX ACCOUNT

The Common Stock Index Account is a new investment option for participants in the Supplemental Fund. The Common Stock Index Account began accepting contributions in July, 1986. At the end of fiscal year 1987, it had a market value of \$1.9 million.

# Investment Objectives

The investment objective of the Common Stock Index Account is to generate returns that match the performance of the common stock market, as represented by the Wilshire 5000. To accomplish this objective, the SBI allocates all of the Common Stock Index Account's assets to passively managed equities.

This 100% common stock allocation means that the Common Stock Index Account's returns, like those of the Growth Share Account, are more variable than the returns produced by the balanced Income Share Account. The Board expects that this greater variability in returns will be compensated over the long-run by higher returns.

#### Investment Management

The Common Stock Index Account is invested entirely by Wilshire Associates, the SBI's passive equity manager. The Common Stock Index Account participates in the index fund segment of the Combined Investment Funds and thus shares Wilshire Associates as a passive manager with the Basic Retirement Funds and the Income Share Account.

#### Investment Performance

The performance objectives of the Common Stock Index Account are straightforward. The Account is expected to track closely the performance of the Wilshire 5000. The SBI recognizes that the Account's returns may deviate slightly from those of the Wilshire 5000 due to the effects of management fees, new contributions, dividend flows, etc.

During fiscal year 1987, the Common Stock Index Account met its performance objectives, producing a 20.7% return versus a 20.1% return for the Wilshire 5000.

#### **BOND MARKET ACCOUNT**

The Bond Market Account is also a new option for Supplemental Fund participants. It, too, began accepting contributions in July, 1986. At the end of fiscal year 1987, the market value of the Bond Market Account was \$800,000.

#### Investment Objectives

The Bond Market Account offers participants a means of adding a fixed income component to their set of investments. The Bond Market Account is invested entirely in investment-grade government and corporate bonds with intermediate to long maturities.

The Bond Market Account earns investment returns through interest income and capital appreciation. Because bond prices move inversely with interest rates, the Bond Market Account entails some risk for investors. However, it represents a lower risk alternative than the all-common stock investment options.

#### Investment Management

The SBI invests the Bond Market Account through the bond segment of the Combined Investment Funds. The Bond Market Account thus shares fixed income managers with the Basic Retirement Funds. A discussion of the SBI's fixed income managers is presented in the Basic Funds section.

# Investment Performance

The Bond Market Account is expected to exceed the performance of the bond market, as represented by the Salomon Broad Investment Grade Bond Index. For the fiscal year 1987, the Bond Market Account exceeded this target, with an 8.1% return compared to the Salomon index return of 5.6%.

A more detailed discussion of the performance of the SBI's bond managers is provided in the Basic Funds section.

#### **MONEY MARKET ACCOUNT**

The Money Market Account (formerly the Fixed Return Account) invests solely in short-term, liquid fixed income investments. The Money Market Account's investment objectives are to preserve capital and offer competitive money market returns. At the end of fiscal year 1987, the Money Market Account had a market value of \$77 million.

The SBI invests the Money Market Account through the short-term investment segment of the Combined Investment Funds. Thus, the Money Market Account is invested entirely by the SBI's short-term investment fund manager, State Street Bank and Trust Company.

The Money Market Account is expected to produce returns competitive with available short-term fixed income investments. The Money Market Account exceeded that target in fiscal year 1987 with a 6.4% return versus a return on 91-day Treasury Bills of 5.7%.

#### GUARANTEED RETURN ACCOUNT

The Guaranteed Return Account opened for subscription in November, 1986. At the end of fiscal year 1987, the account totaled \$4.5 million.

The Guaranteed Return Account is designed to offer participants a fixed rate of return for a specified period of time with negligible risk. The SBI invests the Guaranteed Return Account in three-year guaranteed investment contracts (GIC's) offered by major U.S. insurance companies.

Annually, the SBI accepts bids from insurance companies that meet financial quality criteria defined by State statute. Generally, the insurance company bidding the highest three-year GIC interest rate will be awarded the contract

for the three-year period. Participants in the Guaranteed Return Account then receive that interest rate on contributions made over the next twelve months.

Final bidding on the 1986 GIC contract occurred during October, 1986. Principal Mutual Life Insurance Company submitted the winning bid of 7.72%. Thus, all contributions made to the Guaranteed Return Account over the subsequent twelve months are managed by Principal Mutual for the three-year life of the GIC.

Within the constraints of permitting only top-rated U.S. insurance companies to bid on the GIC contracts, the SBI desires to maximize the three-year interest rate offered to Guaranteed Return Account participants. The Board believes the competitive bidding presents the most effective method of achieving this goal. The Board was very satisfied with the 1986 winning GIC bid of 7.72%, which was 122 basis points over prevailing interest rates on three-year Treasury Notes.

#### **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. At the end of fiscal year 1987, the Bond Account had a market value of \$12 million.

Participation in the Bond Account is offered to qualified retirement organizations only. Individuals do not participate in this investment option. The Bond 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 Bond 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 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.

The Bond Account is managed solely by SBI investment staff. Since all portfolio assets are held to maturity, staff provides very cost-effective management for the account. All assets are invested in investment grade debt securities (i.e. those rated BAA or above) with maturities of six to eight years.

The rates of return established for the last five class years are shown below:

Class Year	Fixed Period	Established Annual Yield
1983	6 yrs. (1983-88)	11.2%
1984	7 yrs. (1984-90)	13.0
1985	7 yrs. (1985-91)	11.8
1986	7 yrs. (1986-92)	10.5
1987	7 yrs. (1987-93)	9.0

**INVESTMENT OBJECTIVES** 

**ASSET ALLOCATION** 

**INVESTMENT MANAGEMENT** 

**INVESTMENT PERFORMANCE** 

The Minnesota Variable Annuity Fund is an investment option formerly offered to members of the Teachers' Retirement Association. The Variable Annuity Fund was designed as an alternative to the regular teachers' retirement plan. The opportunity to enroll is no longer offered to new Association members. However, members enrolled prior to the cutoff date may retain their participation in the Variable Annuity Fund and continue to make contributions. The June 30, 1987 market value of the Variable Annuity Fund was \$171 million.

# INVESTMENT OBJECTIVES AND ASSET ALLOCATION

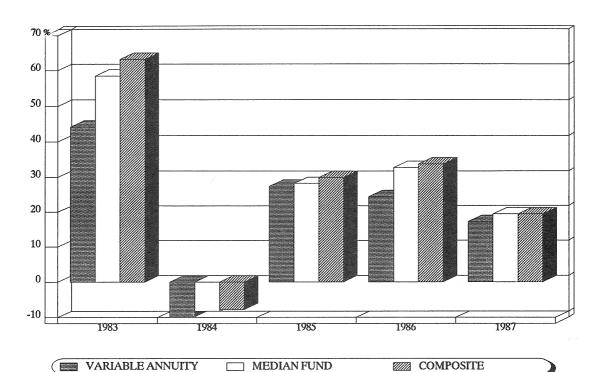
The investment objective of the Variable Annuity Fund is the same as that of the Growth Share Account in the Supplemental Investment Fund. The purpose of the Variable Annuity Fund is to provide participants with above average long-run capital appreciation on their investments.

This investment objective necessitates a sizable long-term commitment to common stocks. The Variable Annuity Fund is authorized to hold up to 100% of its market value in common stocks. The long term policy asset allocation of the fund is:

- 95% common stocks
- 5% cash equivalents

### TOTAL FUND PERFORMANCE

Fiscal Years 1983 - 1987



يت الم	1983	1984	1985	1986	1987	(Annua 3 YR.	alized) 5 YR.
TOTAL FUND	44.2%	-9.8%	27.5%	24.5%	17.2%	23.0%	19.3%
Median Fund*	58.5	-8.2	28.3	32.8	19.4	27.2	25.6
Composite**	63.2	-7.8	30.0	33.8	19.4	27.6	25.6
STOCK SEGMENT	55.8%	-14.1%	30.3%	24.9%	17.4%	24.1%	20.7%
Wilshire 5000	66.5	-8.7	31.2	35.3	20.1	28.6	26.5

<sup>\*</sup> TUCS Median Managed Equity Portfolio \*\* 95/5 Wilshire 5000/91 Day T-Bills Composite

#### **INVESTMENT MANAGEMENT**

The State Board of Investment (SBI) has assigned approximately two-thirds of the Variable Annuity Fund's assets to the SBI's active external common stock managers. The Variable Annuity Fund shares these managers with the Basic and Supplemental Funds through the Combined Investment Funds. The remaining assets are managed by investment staff.

#### **INVESTMENT PERFORMANCE**

The Variable Annuity Fund's total fund performance is expected to surpass the returns of a market indices composite weighted in the same proportion as its policy asset allocation. In addition, the Variable Annuity Fund's performance is expected to exceed the performance of the median portfolio from a universe of managed equity portfolios.

Performance objectives for the Variable Annuity Fund's external stock managers are described in the Basic Retirement Funds discussion. Performance objectives for the Fund's internal manager are described in the Post Retirement Investment Fund discussion.

During the 1987 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 60.

# 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 and designated 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 Permanent School Fund.

Income generated by the Permanent School Fund's assets currently is used to offset state school aid payments. During the 1987 fiscal year, investment income reported to the Minnesota Department of Finance totaled \$31.2 million.

#### **INVESTMENT OBJECTIVES**

The State Board of Investment (SBI) invests the Permanent School Fund to produce a high, consistent level of income that will assist in offsetting state expenditures on school aids.

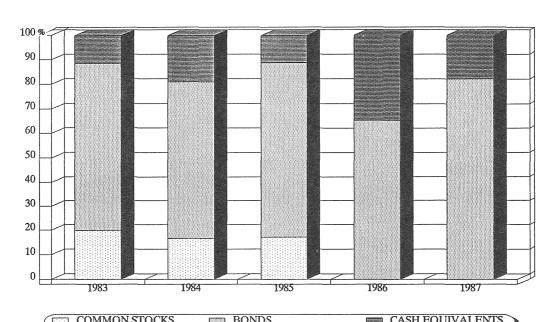
#### Investment Constraints

The Permanent School Fund's investment objectives are influenced by the restrictive accounting provisions under which its investments must be managed. These provisions require that the Permanent School Fund's principal remain inviolate. Further, any net realized equity and fixed income capital gains must be added to principal. Moreover, if the Permanent School 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.

#### HISTORICAL ASSET MIX

Percent of Market Value Fiscal Year-End Allocations



COMMON STOCKS BONDS			CASH EQUIVALENTS		
					Populario de Productio de Optimismo de Comercia de Com
	1983	1984	1985	1986	1987
<b>COMMON STOCKS</b>					
\$Million	59.0	46.0	58.0	0.0	0.0
Percent	19.9	16.6	17.2	0.0	0.0
BONDS					
\$Million	203.0	178.0	241.0	239.0	297.0
Percent	68.6	64.3	71.5	65.4	82.2
CASH EQUIVALENT	S				
\$Million	34.0	53.0	38.0	126.0	64.0
Percent	11.5	19.1	11.3	34.6	17.8
TOTAL FUND					
\$Million	296.0	277.0	337.0	365.0	361.0
Percent	100.0	100.0	100.0	100.0	100.0

Long-run growth in its assets is difficult to achieve without seriously reducing current spendable income and exposing the spendable income stream to unacceptable volatility. The SBI, therefore, invests the Permanent School Fund's assets to produce the maximum amount of current income, within the constraint of maintaining adequate portfolio quality.

#### **ASSET ALLOCATION**

The SBI maximizes current income by investing all of the Permanent School Fund's assets in fixed income securities.

The SBI has a strong incentive not to invest in equity assets for several reasons:

- Common stock yields are considerably lower than bond yields. Thus, common stocks generate less current income than bonds.
- Stock prices are highly volatile and at times may produce realized capital losses that will reduce spendable income.
- Net capital gains become part of the Permanent School Fund's principal. Therefore, the effect of the volatility of common stock prices on the Permanent School Fund's spendable income cannot be smoothed out by spending past realized capital gains.

Considering these constraints, the Board completely eliminated the Permanent School Fund's small common stock component in fiscal year 1986, investing the proceeds in fixed income securities. The Permanent School Fund's 1987 year-end asset mix, as well as its historical asset allocation data, are shown on page 66.

#### INVESTMENT MANAGEMENT

SBI staff manages all of the Permanent School Fund's assets. Given the existing accounting restrictions of the Permanent School Fund, external managers would find it extremely difficult to invest the Permanent School Fund's portfolio. Typically, money managers seek to earn superior total rates of return (which include income and capital appreciation) through active management.

The Permanent School 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 Permanent School Fund is the most cost-effective approach. The staff manages the Permanent School Fund's bond portfolio primarily through a buy-and-hold laddered maturity approach.

#### **INVESTMENT PERFORMANCE**

The Permanent School Fund's investment objective is to maximize spendable income, within the constraint of maintaining adequate portfolio quality.

From a total portfolio risk perspective, the Permanent School Fund is very conservatively structured, as its target asset mix calls for a full commitment to fixed income securities. Within the bond portfolio, SBI staff controls risk by establishing a laddered portfolio structure, thereby avoiding significant interest rate bets. Further, the staff purchases only investment-grade bonds and seeks to maintain an overall portfolio quality rating of at least AA.

From a rate of return perspective, the Board is not concerned with the Permanent School Fund's total rate of

return. Market value changes have no effect on the Permanent School Fund's ability to produce spendable income. Spendable income is affected only to the extent that any securities are sold at losses. Thus, the Permanent School Fund's return objective is to maintain a high current yield on new investments.

The Permanent School Fund achieved its risk-return performance objectives during the year. On June 30, 1987, the Permanent School Fund's bond portfolio had a duration of 6.6 years with an average quality rating of AAA. Further, for the fiscal year the Permanent School Fund generated income in excess of the Minnesota Department of Finance's spendable income target.

## **CASH MANAGEMENT**

STATE CASH ACCOUNTS

SECURITIES LENDING PROGRAM

**CD PROGRAM** 

## **CASH MANAGEMENT**

#### STATE CASH ACCOUNTS

The State Board of Investment (SBI) manages the \$1.9 billion short-term assets of State agency accounts and trust funds with the objectives of preserving capital and providing competitive money market returns. To this end, the SBI invests cash accounts in short-term, liquid, high-quality debt securities. These investments include U. S. Treasury and Agency issues, repurchase agreements, bankers acceptances, and commercial paper.

Most State cash accounts are managed by SBI staff through two pooled investment vehicles, which operate much like money market mutual funds. (These short-term pooled funds were created late in the 1987 fiscal year and are described in more detail in the Major Developments section of this report.)

- Trust Fund Pool. This pool contains cash balances of retirement-related accounts managed internally as well as the cash in the Permanent School Fund. The Trust Fund Pool has a daily balance of approximately \$350 million.
- Treasurer's Cash Pool. This pool contains cash balances from special or dedicated accounts necessary for the operation of State agencies as well as the balance of Invested Treasurer's Cash. The Treasurer's Cash Pool has a daily balance of approximately \$1.1 billion.

Because of special legal restrictions, a small number of cash accounts cannot be commingled. These accounts are therefore invested separately.

#### SECURITIES LENDING PROGRAM

As part of its 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 the funds managed by the Board.

#### CERTIFICATE OF DEPOSIT PROGRAM

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 SBI receives a market rate of return on these investments, using the average secondary CD market rate quoted by the New York Federal Reserve Bank. Only the cash reserves of pension funds (i.e., Basic Retirement Funds or Post Retirement Fund) are used in the program. As a result, all investments are fully insured by the Federal Deposit Insurance Corporation (FDIC) or Federal Savings and Loan Insurance Corporation (FSLIC).

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 Board designed the CD process so that no single institution is favored in the allocation of assets. Since it began in 1980, the SBI has purchased over \$1 billion of CD's from 365 financial institutions throughout the state.

LEGISLATIVE INITIATIVES

BASIC FUNDS POLICY REVIEW

BENCHMARK PORTFOLIOS

PERFORMANCE-BASED FEES

POOLED CASH ACCOUNTS

RESOLUTION ON SOUTH AFRICA

PROXY VOTING

#### LEGISLATIVE INITIATIVES

The statutory investment authority of the State Board of Investment (SBI) was expanded by the 1987 Legislature. The Board's legislative initiatives included several individual proposals.

#### New Equity Limits

The Legislature approved higher limits on the use of common stocks and alternative assets in a fund. Alternative assets include real estate, venture capital and oil and gas funds:

- Alternative assets may now comprise up to 35% of a fund. (The previous limit was 20%.)
- Alternative assets and common stocks combined may now occupy up to 85% of a fund. (The previous limit was 75%.)

These higher limits will offer the Board greater investment flexibility in future policy decisions on asset allocation.

#### Additional Authorized Assets

Within the new limits described above, the Board also requested two types of securities be added as allowable alternative assets:

- High-yield and unrated debt securities
- International investments

The Legislature adopted the Board's request regarding debt securities but did not approve the addition of international investments.

The new debt authority will allow the Board to increase its use of unrated private placement debt and to take

advantage of growing investment opportunities in the taxable municipal market.

The Board's request for international authority gained substantial support despite its failure to gain final approval. As a result, the Board intends to renew this request during the 1988 session.

# Administrative Changes

The Board proposed several changes to simplify other investment activities:

- Short-term Securities Provisions. Obsolete and extraneous language was removed from the statutes regarding bankers acceptances, certificates of deposit and commercial paper. In addition, new criteria governing the quality of those investments were added to the statutes. These changes should enhance the Board's ability to obtain competitive returns on its short-term investments. The amendments also remove cumbersome administrative procedures associated with the operation of the Minnesota Certificate of Deposit Program. (See page 74 for a description of this program.)
- Cash Account Maturity Limits. Formerly, State cash accounts were limited to investments in debt obligations with maturities of three years or less. Recent changes in federal tax law made this provision disadvantageous in certain instances. The limit was removed to avoid incurring penalties on arbitrage earnings. Due to the liquidity needs, nearly all cash accounts will continue to be invested in short-term securities with maturities considerably less than three years.

#### BASIC FUNDS POLICY REVIEW

The investment program for the Basic Retirement Funds has been in place for over three years. In that time, both the capital markets and the Basic Funds have undergone significant changes. In response to those changes, the Board staff, in collaboration with the Investment Advisory Council, formally updated the Basic Funds investment policies during fiscal year 1987. The Board adopted the recommendations over the course of the year.

The review process drew on information developed by a number of sources including the Board's staff; the Board's consultant, Richards & Tierney; members of the Investment Advisory Council; and the investment community at-large.

Investment Policy Statement An important product of this review process was the creation of a formal investment policy statement for the Basic Retirement Funds. The statement is a set of guidelines for the management of the Basic Funds which address several issues:

- Investment objectives
- Risk tolerance
- Long-term policy asset mix
- Asset class targets
- Investment management structure
- Performance evaluation

In a series of position papers, staff thoroughly discussed each of these topics and provided specific recommendations to be implemented. The investment policy statement itself is a summary of the recommendations adopted by the Board for the Basic Funds.

The guidelines set forth in the policy statement have been incorporated in the description of the Basic Retirement Funds found on pages 7 to 28.

# **Summary of Recommendations**

The recommendations that emerged from the study will not greatly change the investment objectives and the asset allocation previously established for the Basic Funds. The most significant modifications will occur in the investment management structure utilized by the Basic Funds.

During fiscal year 1988, the Board staff, working in conjunction with the Investment Advisory Council, will implement several new management features. The most notable changes are:

- Creation of a passively managed component in the bond segment of the Basic Funds. Currently, all bond holdings are actively managed.
- Use of flexible allocations to active and passive management in the Basic Funds' stock and bond segments. Active management will range from a minimum of 10% to a maximum of 50%. Passive management will occupy the residual, from a minimum of 50% to a maximum of 90%.
- Construction of a completeness fund to offset any style biases in the actively managed segment of the Basic Funds. Selection of active managers will be based solely on their potential to provide superior performance.

The Board recognizes that there are no clear-cut answers to many of the issues raised during the analysis. However, by giving all issues thorough consideration, the Board can be confident that it is pursuing a well-designed and consistently applied investment policy appropriate for the Basic Funds.

# BENCHMARK PORTFOLIOS AND PERFORMANCE-BASED FEES

During fiscal year 1986, the State Board of Investment (SBI) developed benchmark portfolios for each of its external common stock managers. These benchmarks became an integral component of a performance-based fee system which was also introduced during that year for most of the Board's stock managers. During fiscal year 1987, the benchmark building process was refined and performance-based fees were implemented with most of the Board's external active stock managers. In addition, the Board revised the formula used to calculate the fee.

## Benchmark Portfolios

A benchmark portfolio is a customized index that represents the investment style of an individual money manager. A benchmark reflects the prominent risk characteristics that a manager's portfolio would exhibit if the manager were making no active investment judgments.

Benchmark portfolios are appropriate targets against which to measure the performance of individual managers. At times, managers may perform well simply because their styles are "in favor." As representations of managers' styles, benchmark portfolios compensate for this factor. This allows plan sponsors to evaluate more effectively the value individual managers add to the investment process.

SBI staff developed the initial benchmark portfolios for the Board's active common stock managers in fiscal year 1986. During fiscal year 1987, responsibility for maintaining appropriate benchmarks was shifted from staff to the individual managers. These benchmarks are monitored by Board staff and the Board's consultant, Richards & Tierney. The managers' performances relative to their benchmarks are calculated by Richards & Tierney on a quarterly basis.

Benchmark portfolios will continue to be a key component of the Board's on-going investment management program. They have proven to be useful tools

in manager evaluation and are integral to the application of performance-based fees.

#### Performance Based Fees

After the Securities and Exchange Commission removed its prohibition on performance-based fees, the SBI was among the first institutional investors to implement this method of compensation for its external active common stock managers. By the end of fiscal year 1987, nine of the Board's eleven external stock managers were being paid using a fee schedule that compensated managers for their performance relative to their benchmark portfolios. During fiscal year 1988, all of the stock managers will be compensated through performance fees.

The Board uses a symmetrical fulcrum fee system. This fee system establishes a base compensation for a manager and a performance benchmark against which additional compensation (positive and negative) is paid. If a manager's performance matches that of the target, no additional fee is paid. If performance exceeds the target, an additional predetermined amount is paid. If performance fails to match the target, the base fee is reduced by the same predetermined formula. As a result, performance above the target produces additional payments to managers that are equivalent to those withheld from managers for performance below target.

The base fee was originally set at a single fixed rate. Given the growing account sizes of the SBI's active stock managers, staff believed that the single rate base fee component in the performance fee formula was too high and should be reduced. As a result, staff recommended that the Board adjust the fee schedule.

There are several important aspects of the revised fee structure adopted by the Board in late fiscal year 1987:

- As assets under management increase, the base fee rate paid to the manager will decrease in line with the manager's sliding fee scale.
- The excess performance calculation will reflect base fee payments. The manager's actual portfolio return will be calculated net of the base fee. The manager

- is expected to outperform the benchmark portfolio, net of the base fee, by 150 basis points.
- Regardless of the base fee, the manager will still reach the minimum and maximum total fee rates at the same levels of deficit and excess performance measured net of the base fee (i.e., 600 basis points below and 900 basis points above the benchmark's return, respectively).
- The minimum fee rate will be zero and the maximum total fee rate will be twice the base fee.

The Board believes that this revised fee structure retains the simplicity and non-volatile nature of the symmetrical fulcrum fee structure. At the same time, it permits the SBI to benefit from the reduced fees charged by managers as account sizes increase. The revised performance fee schedule was implemented at the start of fiscal year 1988.

#### POOLED CASH ACCOUNTS

As described earlier in this report, the State Board of Investment manages approximately \$2 billion in cash accounts. These assets represent the balances in more than 200 separate accounts that flow through the Minnesota State Treasury and range in size from \$5,000 to over \$400 million.

**Feasibility** 

During the year, Board staff examined the feasibility of establishing a commingled investment pool for these accounts. Staff believed a large pool would be beneficial to all participants since it would reduce both the recordkeeping required and the number of individual transactions necessary to maintain the operation of all accounts. In addition, staff felt higher rates of return could be generated due to the increased investment flexibility of a large-scale pool.

After examining the statutory requirements for each of the accounts, the Attorney General's office determined that legal restrictions prohibited a small number of accounts from participating in a pool. However, the remaining majority could be commingled, provided the interest income attributable to each account could be calculated and appropriately credited.

Design

Staff determined that two separate pools should be created to reflect the different nature and purpose of the various accounts:

- Trust Fund Pool. This pool would contain the cash balances of retirement-related accounts managed internally by SBI staff, as well as the cash in the Permanent School Fund. The Trust Fund Pool would have a daily balance of approximately \$350 million.
- Treasurer's Cash Pool. This pool would contain cash balances from special or dedicated accounts necessary for the operation of state agencies, as well

as the balance of the state's Invested Treasurer's Cash. The Treasurer's Cash Pool would have a daily balance of approximately \$1.1 billion.

#### **Objectives**

Staff determined that both pools could be invested with the same objectives:

- Liquidity. The pools should meet the cash needs of all participants without the forced sale of securities at a loss.
- Safety of Principal. Pool participants should expect their deposits to be returned in full, with additional interest income.
- Competitive Rate of Return. The pools should generate investment income at a level that is competitive with other money market type funds.

#### **Implementation**

Working from these objectives, staff developed internal investment guidelines that address a variety of issues including the quality and marketability of assets selected for investment and the maturity requirements of each pool.

After review by the Investment Advisory Council, the Board adopted the staff recommendation to implement the cash pool vehicles. The two pools described earlier were constructed in late fiscal year 1987.

#### RESOLUTION ON 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.

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, one representative from the private sector, one representative from the retirement fund systems, and one public employee representative.

Summary

The resolution establishes the following timetable for the Board'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 making substantial efforts to eliminate Aparthied.
- 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 Board 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.

## Implementation of Phases 1 & 2

After the Board's resolution was adopted, the Sullivan Organization stipulated that companies must provide outside monitoring of their activities in order to maintain their status as a signatory of the Sullivan Principles. As a result, all signatories meet the requirements of both Phases 1 and 2 of the resolution.

When it began implementation of the resolution, the Board and the Task Force focused their attention on companies in the actively managed common stock portfolios. Based on correspondence with companies known to do business in South Africa and information available through the Investor Responsibility Research Center (IRRC), it was initially determined that twenty companies in the actively managed common stock portfolios had not signed the Sullivan Principles.

By January, 1986 (the end of Phase 1), fourteen of these companies became signatories or instituted a policy comparable to the Sullivan Principles and three other non-signatories sold their operations in South Africa. As a result, three companies in the actively managed common stock portfolios did not meet the requirements of the resolution by the end of Phase 1.

After reviewing reports from its financial and legal advisors, the Board decided not to immediately liquidate the affected holdings. Rather, it chose to implement the

requirements of the resolution by instituting a policy of "divestment through attrition." Under this policy, Board's active stock managers were directed to discontinue purchases of stock in the restricted companies unless the manager determined the failure to buy a particular stock would be a violation of its fiduciary responsibility. As existing holdings were sold during the normal course of business, the stock holdings in restricted companies would decline.

By August, 1986 (the end of Phase 2), the actively managed common stock portfolios did not contain the stock of any company which had not signed the Sullivan Principles. As a result, all holdings in those portfolios met the requirements of the resolution at the end of Phase 2. This change was due both to sales of stock by managers during the normal course of business as well as the decision of other companies to become signatories of the Sullivan Principles.

# Implementation of Phase 3

Phase 3 of the resolution requires the SBI to restrict its holdings to signatories that have achieved the highest category ranking on their implementation of the Sullivan Principles (i.e., "Category I, Making Good Progress").

In May, 1987, the Task Force recommended that the divestment through attrition policy be expanded to include any company in the actively managed stock portfolios that did not meet the Phase 3 requirements. This action restricts the active common stock managers from purchasing stock in any of the following companies: non-signatories of the Sullivan Principles; companies whose most recent rating on their implementation of the Sullivan Principles was "Category II, Making Progress" or "Category III, Needs to Become More Active."

In May, the Board's active stock managers had positions in 26 restricted companies totaling 2.8 million shares. In August, 1987, the managers had positions in 16 restricted companies totaling 831,000 shares. This was a 70% reduction in the number of restricted shares and indicates substantial progress had been made in implementing the Board's policy of divestment through attrition in Phase 3.

This reduction was due both to sales of stock by managers during the normal course of business as well as the decisions of companies to terminate their operations in South Africa.

Future developments concerning Phases 3 and 4 of the resolution will be described in subsequent Annual Reports.

#### Shareholder Activity

As part of its implementation of the resolution, the Board sponsored or co-sponsored shareholder resolutions during the 1986 and 1987 proxy seasons. These resolutions called for companies to sign the Sullivan Principles.

Of the nine shareholder resolutions filed in 1986, six were withdrawn when the companies became signatories or terminated their operations in South Africa prior to their annual meetings. Three resolutions came to a vote. The current status of those companies with respect to South Africa is shown below:

- Diamond Shamrock terminated their operations in South Africa.
- Hughes Tool merged to form Baker Hughes, which is a signatory.
- U.S. Steel (USX) is now a signatory.

In 1987, three companies were identified as candidates for the Board's shareholder resolution. One resolution was withdrawn when the company terminated its operations in South Africa and another was dropped when the company became a signatory prior to their annual meeting. The Board's proposal came to a vote at Lubrizol, where the resolution drew 11.0% affirmative votes.

Shareholder activity during the 1988 proxy season will be reported in future Annual Reports.

#### PROXY VOTING

As a stockholder, the State Board of Investment (SBI) 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 SBI can participate in shaping corporate policies and practices.

All non-routine proxy matters are reviewed by a committee of the Board 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..."

**COMMON STOCK MANAGERS** 

**BOND MANAGERS** 

**ALTERNATIVE INVESTMENT MANAGERS** 

#### **COMMON STOCK MANAGERS**

#### Fred Alger Management

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 and 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

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 timer, rarely raising cash above minimal levels.

## BMI Capital

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

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

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 & Co.

Lieber and 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.

#### Peregrine Capital Management

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.

#### 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.

#### 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.

Portfolio statistics for each of these managers can be found in the Statistical Data Appendix.

#### **BOND MANAGERS**

#### Investment Advisers

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

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 & 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 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

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.

Portfolio statistics for each of these managers can be found in the Statistical Data Appendix.

#### **ALTERNATIVE INVESTMENT MANAGERS**

#### Real Estate

#### Fund: RESA

# Aetna Life & Casualty

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.

#### Equitable Real Estate Group

Fund: Prime Property Fund

Prime Property Fund 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.

#### Fund: PRISA I

### Prudential Investment Management

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.

Rosenberg Real Funds (RREEF)

Fund: RREEF USA III RREEF USA III is a closed-end commingled fund 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.

**Estate Equity** 

Funds: HAC Group Trust I **HAC Group Trust II HAC Group Trust III** 

Heitman Advisory Corp. (HAC)

HAC Group Trusts are closed-end commingled funds managed by the Heitman Advisory Group. The majority of the trust investments are equity real estate. The real estate portfolios are 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 trusts may be managed by joint venture partners. Heitman Advisory is based in Chicago.

**Trust Company** of the West (TCW)

Funds: TCW Realty Fund III **TCW Realty Fund IV** 

TCW Realty Funds are closed-end commingled funds. The funds are managed as joint ventures between Trust Company of the West and Westmark Real Estate Investment Services of Los Angeles. These managers utilize specialty investment vehicles such as convertible and participating mortgages to enhance real estate returns. Investments are diversified by location and type. Portfolio properties are typically managed by local property management firms.

**State Street** Bank & Trust Funds: AEW - State Street Real Estate Fund III **AEW - State Street Real Estate Fund IV** 

State Street Real Estate Funds are closed-end commingled funds managed by the State Street Bank and Trust Company of Boston. State Street Bank has retained Aldrich, Eastman and Waltch (AEW) as the funds' advisor. The funds' special orientation is the use of creative investment vehicles such as convertible and participating mortgages to maximize real estate returns. The real estate portfolios are diversified by location and property type. On-site property management typically is contracted to outside firms or conducted by joint venture partners.

#### Venture Capital

Fund: Northwest Venture Partners I

**Norwest Venture** Capital Management

Northwest Venture Partners I was formed in January 1984 and 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 Northwest

Growth Fund, an SBIC, and Northwest Equity Capital, a leveraged buyout fund. Northwest 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.

#### Funds: KKR 1984 LBO Fund KKR 1986 LBO Fund

Kohlberg, Kravis, Roberts & Co. (KKR) KKR's Leveraged Buyout Funds are structured as limited partnerships. The funds invest in large management leveraged buyouts. The partnerships' portfolio companies are mature, low technology companies with very diversified operations. Kohlberg, Kravis, Roberts and Co. operates offices in New York and San Francisco.

#### Fund: Summit Ventures

Stamps, Woodsum & Co. Summit Ventures is a limited partnership with 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.

#### Fund: First Century III

Smith Barney Venture Corp. First Century III was formed in December 1984. It is structured as a limited partnership with 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.

#### Fund: DSV Partners IV

DSV Management Ltd. DSV Partners IV limited partnership 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 has offices in Princeton, New Jersey, and California. 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.

#### Fund: Inman & Bowman

Inman & Bowman Management The Inman & Bowman limited partnership 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, the fund will consider investments in the Pacific Northwest as well. The partnership has a ten-year term.

#### Fund: Matrix Partners II

#### Matrix Partners

Matrix Partners II limited partnership 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.

#### Fund: Allied Venture Partnership

### Allied Capital

Allied Venture Partnership was formed in September 1985 and has a ten-year term. Based in Washington D.C., the fund focuses 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, publically owned venture capital corporation formed in 1958.

#### Fund: Superior Venture Partners

### IAI Venture Capital Group

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.

#### **Resource Funds**

Funds: AMGO I AMGO II

First Reserve Corp. AMGO funds are structured as limited partnerships. The general partner and manager of the funds is First Reserve Corp. The general partner's long-term investment strategy is to create diversified portfolios of oil and gas investments. The portfolios are diversified across four dimensions: location, geological structure, investment type, and operating company.

#### Apache Corporation

Funds: Apache Equipment Financing Notes
Apache Properties Acquisition Notes
Apache Acquisition Net Profits Interest

Apache 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 Denver.

Apache 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.

Apache Acquisition Net Profits Interest is a \$190 million private placement to acquire a non-operating interest in the net profit generated by oil and gas properties acquired in 1986 from Occidental Petroleum Company. Investors will receive a 85% net profits interest in the financed share of producing properties until the cumulative total of such payments equals the investment cost plus 8% per year return on investment (the "Payout"). However, if the cumulative net profit discounted at 10% should fail to exceed a defined cumulative cash flow comparably discounted, investors will receive a 90% net profits interest until Payout. After Payout, investors will receive a 75% net profits interest for the life of the producing properties. Payout is expected in 1991.

A summary of the Board's commitments to these real estate, venture capital, and resource funds can be found in the Statistical Data Appendix.

## STATISTICAL DATA APPENDIX

MANAGER PORTFOLIO STATISTICS

HISTORICAL PERFORMANCE SUMMARIES

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#### 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 The managers' portfolio characteristics are in the Wilshire 5000. reported in standard deviation units relative to the average or Thus, a positive (negative) value mean of these 1000 companies. 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. the market has definition, diversification measure of 1.0. The less a portfolio is diversified, the lower will be its diversification measure (referred to as SBI's managers are R-squared). The 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.

#### TABLE A-1

## EXTERNAL EQUITY MANAGERS PORTFOLIO STATISTICS RELATIVE TO BENCHMARK PORTFOLIOS

QUARTER-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)	56	95	1.17	0.94	-0.48	-0.25	0.30	0.92	0.39	0.64	0.11	0.02	0.64	0.04
Alliance	(B) (A) (B)	1,045 40 334	95 99 95	1.21 1.20 1.22	N.A. 0.96 N.A.	-0.28 -0.50 -0.45	-0.18 -0.09 -0.15	-0.33 0.13 -0.19	0.13 0.70 0.34	0.00 0.25 0.31	0.40 0.54 0.49	0.11 0.03 0.02	0.07 -0.18 0.44	0.50 0.67 0.72	0.03 -0.08 -0.04
SMALL GROWTH MA	NAGERS	5													
BMI Capital	(A) (B)	- 31 1,042	99 95	1.28	0.91 N.A.	-0.64 -0.61	0.09	-0.19 -0.03	-0.02	-0.34	0.62	0.61	1.56	0.60	0.14
Lieber & Co.	(A) (B)	113 1,129	97 95	1.25	0.86 N.A.	-0.23 -0.44	0.19	-0.51 -0.56	0.13 -0.04 0.01	0.00 0.27 0.09	0.92	0.13 -0.01 0.05	0.77 1.50 1.94	0.98 0.74 0.85	-0.08 -0.27 -0.23
Waddell & Reed	(A) (B)	66	86 80	1.25	0.92 N.A.	-0.35 -0.45	-0.30 -0.37	0.03	0.28	-0.17 -0.11	0.54	0.16	0.70	0.65	-0.09 0.13
ROTATIONAL MANA	GERS														
Forstmann Leff	(A) (B)	35 1,383	68 70	1.11	0.94 N.A.	-0.29 -0.13	-0.30 -0.08	0.50 -0.22	0.53 0.12	-0.01 0.07	0.47	0.10	-0.20 0.63	0.23	0.05
Hellman Jordan	(A) (B)	29 454	78 83	1.22	0.93 N.A.	-0.45 0.01	0.08	-0.02 -0.15	0.56	0.27	0.59	0.13	-0.39 -0.12	0.78	-0.28 0.05
IDS	(A) (B)	53 786	98 90	1.13 1.05	0.96 N.A.	-0.30 0.15	-0.23 0.04	0.26 -0.21	0.45 0.05	0.07 0.05	0.41	0.09	-0.09 0.10	0.38	-0.07 0.07
IAI	(A) (B)	43 331	80 85	1.06	0.95 N.A.	-0.27 0.11	-0.13 0.01	0.29	0.85 0.15	0.01	0.19	0.05 -0.05	-0.14 $-0.24$	0.21	0.03 0.07
VALUE MANAGERS															
Beutel Goodman	(A)	29	86	1.14	0.89	-0.08	-0.42	-0.30	-0.59	-0.30	0.13	0.05	0.22	0.18	0.24
Peregrine Cap.	(B) (A) (B)	422 175 1,056	95 79 90	1.19 1.10 1.11	N.A. 0.84 N.A.	-0.02 0.69 0.09	0.01 0.15 -0.04	-0.41 -0.91 -0.38	-0.46 -0.61 -0.24	-0.16 -0.25 -0.19	0.34 -0.15 0.05	0.24 -0.04 -0.03	0.88 0.67 0.49	0.20 -0.05 0.12	0.15 0.12 0.12
Composite Activ	e Ext.														
Managers Index Fund Mana Composite All B		538 1,482	88 100	1.15 1.06	0.98 0.98	-0.18 0.08	-0.08 -0.01	-0.10 $-0.19$	0.18 0.05	0.00	0.32 0.06	0.07 -0.05	0.16 0.09	0.39 0.07	$0.04 \\ -0.01$
Eq. Manage		1,628	95	1.10	0.98	0.00	-0.04	-0.14	0.09	-0.02	0.20	0.04	0.02	0.17	0.01

<sup>(</sup>A) - Actual Portfolio

<sup>(</sup>B) - Benchmark Portfolio

#### EXTERNAL EQUITY MANAGERS

#### SECTOR WEIGHTINGS RELATIVE TO BENCHMARK PORTFOLIOS

SECTOR WEIGHTINGS

MANAGER		CAPITAL GOODS	CONSUMER DURABLES	CONSUMER NONDURABLES	ENERGY	FINANCIAL	MAT. & SERVICES	TECHNOLOGY	TRANS- PORTATION	UTILITIES
GROWTH MANAGERS			•							
Fred Alger	(A)	1.0%	1.7%	45.5%	3.6%	2.4%	10.2%	28.7%	5.3%	1.68
Alliance	(B) (A) (B)	4.3 5.9 3.1	3.9 5.1 1.9	34.0 35.4 35.6	6.4 2.4 1.5	12.5 16.5 16.6	16.5 11.6 16.3	15.8 17.5 21.2	4.3 5.7 3.8	2.5
SMALL GROWTH MANAGERS	S									
BMI Capital	(A)	12.4	5.8	42.3	7.5	13.5	8.5	10.1	400 cm cm	50 to 00
Lieber & Company	(B) (A)	5.2 3.3	3.4 6.1	28.5 31.6	2.0 1.7	26.5 37.4	15.5 7.3	13.6	4.5 3.1	0.6
Waddell & Reed	(B) (A) (B)	6.9 4.1 7.1	6.1 10.2 4.6	27.8 19.1 31.1	2.8 9.0 6.8	17.2 2.9 0.7	16.2 20.8 25.9	18.3 30.7 17.7	2.9 2.3 6.0	1.6 0.8 0.1
ROTATIONAL MANAGERS										
Forstmann Leff	(A) (B)	3.8	3.2	25.2 28.5	0.9 4.7	2.3 15.2	42.1 16.2	25.0 14.1	4.4	9.3
Hellman Jordan	(A)	500 cm Gr	11.2	18.0	640 Gay 459	22.1	9.8	34.0	4.9	tinh sup clas
IDS	(B)	4.3 2.3	2.6 5.0	32.8 28.1	5.8 11.5	12.3	17.3 23.0	12.4 19.6	5.6 7.9	6.9 2.7
Investment Advisers	(B) (A) (B)	3.5 6.4 3.6	2.6 3.1 2.9	27.4 31.9 29.3	5.6 3.6 10.2	14.1 1.1 9.7	14.4 30.7 15.5	13.2 14.4 11.7	4.4 3.4 4.6	14.7 5.4 12.5
VALUE MANAGERS										
Beutel Goodman	(A)	6.5	3.0	18.6	16.5	27.8	13.0	22.2	and and and	2.5
Peregrine Capital	(B) (A) (B)	5.8 3.9 6.2	4.1 7.8 3.8	17.5 24.7 22.0	8.5 3.7 5.6	23.2 15.0 15.6	19.5 7.4 14.2	12.9 16.1 14.0	8.4 3.1 6.2	18.2
Composite External										
Managers Index Fund Manager		3.9 4.8	4.9 3.9	27.2 27.9	6.3 9.6	12.5 12.5	14.8 13.3	20.4 13.3	4.4 3.2	5.6 11.5
Composite All Basic Managers Wilshire 5000		4.5	4.2	27.7 27.3	8.5 9.8	12.5 12.3	13.8 13.4	15.6 13.6	3.6 3.1	9.6 11.7

<sup>(</sup>A) - Actual Portfolio

<sup>(</sup>B) - Benchmark Portfolio

TABLE A-3

#### EXTERNAL EQUITY MANAGERS

#### PERFORMANCE RELATIVE TO BENCHMARK PORTFOLIOS

Managers	Quarte	ond er 1987	Year 1 6/30	0/87	Two Ye Ending ( (Annua)	5/30/87 Lized)		6/30/87 alized)
	Actual Portfolio	Benchmark Portfolio	Actual Portfolio	Benchmark Portfolio	Actual Portfolio	Benchmark Portfolio	Actual Portfolio	Benchmark Portfolio
Fred Alger Alliance Capital Beutel Goodman BMI Capital Forstmann Leff Hellman Jordan IDS Investment Advisers Lieber & Company Peregrine Capital Waddell & Reed Internal Manager Wilshire Associates (Index Fund)	0.0% 4.6 5.3 1.2 1.6 1.3 3.7 4.0 -1.3 1.4 2.4 3.6	2.8% 3.2 3.5 0.3 2.1 3.4 3.4 3.4 4.0.1 2.5 3.4	7.1% 23.6 17.1 20.7 12.3 23.1 19.3 18.1 7.3 18.3 19.3 26.3 20.3	20.0% 17.1 24.5 13.9 15.1 20.2 20.2 20.2 9.7 19.9 20.2 24.8	25.6% 33.4 16.7 28.4 27.2 26.3 30.1 23.6 23.5 19.2 23.8 22.3	27.5% 24.8 28.1 24.3 20.4 27.5 27.5 27.5 23.0 23.5 27.5 N.A. 27.5	25.9% 33.6 22.9 23.6 28.0 28.7 26.4 31.9 25.9 N.A. 21.1 N.A.	27.6% 24.7 29.3 24.5 21.5 28.7 28.7 28.7 23.8 23.9 28.7 N.A.
Total Basic Retiremer Funds' Common Stock Segment Capital Markets Data	3.2	3.1	19.4	19.4	26.4	N.A.	27.8	N.A.
Wilshire 5000 90-Day Treasury Bills Inflation	3.3 8 1.4 1.3		20.1 5.7 3.7		27.4 6.5 2.7		28.6 7.4 3.1	

## EXTERNAL EQUITY MANAGERS PORTFOLIO STATISTICS HISTORICAL SUMMARY

MANAGER NAME	PO	TR. EQUITY /O ALLOC.	EQUITY R2 BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	Alerd	FINL
AVG. EXT. MANAGERS	12/31/86 2 9/30/86 2 6/30/86 2 3/31/86 2 12/31/85 2 9/30/85 2 6/30/85 3 3/31/85 3 12/31/84 2 9/30/84 3 6/30/84 2	5 88 8 89 6 87 5 91 9 92 9 90 7 82 4 90 13 90 14 86 3 84 7 81	0.92 1.17 0.92 1.20 0.91 1.20 0.90 1.25 0.90 1.28 0.88 1.25 0.89 1.23 0.83 1.23 0.83 1.23 0.82 1.23 0.81 1.25 0.82 1.26 0.81 1.29 0.82 1.25 0.80 1.23	0.38 0.44 0.43 0.55 0.70 0.66 0.55 0.53 0.55 0.56 0.36 0.36	0.12 0.13 0.15 0.21 0.26 0.30 0.29 0.27 0.14 0.02 0.08 0.09 0.04	-0.04 -0.07 0.06 0.04 0.09 -0.04 0.03 -0.29 -0.23 -0.26 -0.13 -0.10 -0.25 -0.10	0.28 0.23 0.20 0.10 0.12 0.07 0.04 0.07 0.06 0.17 0.13 0.13	0.02 -0.09 -0.05 0.04 0.01 0.02 -0.02 0.21 0.03 0.05 0.01 0.01	0.33 0.27 0.31 0.47 0.45 0.41 0.43 0.41 0.54 0.73 0.72 0.79 0.60 0.80	0.46 0.41 0.41 0.50 0.49 0.41 0.33 0.27 0.13 0.23 0.22 0.19 0.20	-0.11 -0.06 -0.05 -0.06 -0.53 -0.34 -0.15 -0.07 -0.01 -0.03 -0.03 -0.03	-0.26 -0.28 -0.29 -0.33 -0.36 -0.27 -0.23 -0.17 -0.17 -0.32 -0.28 -0.29 -0.26 -0.27	-0.02 0.01 -0.05 -0.07 0.08 0.14 0.07 -0.02 0.03 0.05 0.04 0.14 0.08
FRED ALGER	3/31/87 8 12/31/86 4 9/30/86 3 6/30/86 2 3/31/86 4 12/31/85 2 9/30/85 2 6/30/85 4 3/31/85 3 12/31/84 1 9/30/84 2 6/30/84 1 3/31/84 1	8 88 1 94	0.94 1.17 0.95 1.16 0.95 1.17 0.91 1.28 0.92 1.31 0.91 1.29 0.90 1.25 0.83 1.23 0.79 1.23 0.85 1.27 0.86 1.19 0.86 1.22 0.86 1.22 0.86 1.19 0.88 1.18	0.64 0.48 0.45 0.88 0.94 0.69 0.64 0.77 0.84 0.48 0.11 0.14	0.11 0.21 0.13 0.32 0.35 0.48 0.45 0.33 0.39 0.24 0.05 0.14 -0.01 0.04	0.30 0.01 0.26 0.44 0.74 0.31 0.11 -0.07 -0.07 0.03 0.03 0.10 0.06 -0.13 0.26	0.92 0.37 0.73 0.56 0.40 0.23 0.16 0.32 0.39 0.35 0.34 0.06 0.08	0.39 0.13 0.01 0.03 0.09 0.12 0.25 0.31 0.48 0.69 0.10 0.00 -0.21 -0.34	0.02 0.16 0.19 0.40 0.02 -0.17 0.14 0.32 0.26 0.05 0.42 0.45 0.46 0.31	0.64 0.32 0.39 0.49 0.39 0.45 0.19 0.33 0.53 0.38 0.10 -0.01 -0.13	-0.25 -0.02 -0.02 -0.19 -0.04 -0.40 0.02 -0.17 -0.05 -0.23 0.03 -0.04 -0.40 -0.50	-0.48 -0.35 -0.34 -0.56 -0.54 -0.42 -0.55 -0.64 -0.47 -0.44 -0.31 -0.32 -0.32	0.04 -0.04 -0.04 -0.10 -0.19 0.25 0.08 0.05 0.08 -0.09 -0.08

MANAGER NAME	P		EQUITY	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
ALLIANCE CAPITAL	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84	18 29 19 13 11 17 7 15 7 10 8 13 8 13	99 92 96 99 97 94 96 89 95 96 92 88 92	0.96 0.95 0.92 0.91 0.85 0.73 0.76 0.73 0.72 0.73	1.20 1.20 1.23 1.21 1.21 1.24 1.23 1.24 1.21 1.30 1.34 1.39 1.38	0.54 0.55 0.43 0.48 0.53 0.52 0.53 0.52 0.53 0.56 0.53 0.65	0.03 0.06 -0.04 -0.14 0.35 0.11 0.13 0.15 0.03 -0.12 0.09 0.15 0.13 0.13	0.13 0.09 0.28 0.20 0.30 0.48 0.23 0.09 0.04 0.10 0.03 -0.02 -0.27	0.70 0.93 0.66 0.64 0.75 0.88 1.06 0.99 0.96 0.74 0.82 0.72 0.78	0.25 0.20 0.34 0.35 0.48 0.36 0.54 0.66 0.73 0.51 0.52 0.45 0.45	-0.18 -0.28 -0.15 -0.12 -0.19 -0.10 -0.14 -0.02 0.08 0.15 0.26 0.33 0.48 0.50 0.45	0.67 0.65 0.82 0.64 0.57 0.56 0.63 0.85 0.83 0.78	-0.09 -0.08 -0.06 0.00 -0.02 -0.46 -0.50 -0.27 -0.29 -0.28 -0.40 -0.47 -0.50	-0.50 -0.51 -0.58 -0.50 -0.50 -0.49 -0.54 -0.61 -0.56 -0.73 -0.65 -0.73	-0.08 -0.10 -0.08 -0.26 -0.26 0.09 0.00 -0.08 -0.06 -0.20 -0.15 -0.09 -0.04 -0.04
BEUTEL GOODMAN	3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/84 9/30/84 6/30/84	12 25 18 13 10 22 18 5 6 14 8 10 11 12	84 96 95 87 87 89 99 94 93 94 93 92	0.89 0.88 0.86 0.87 0.85 0.85 0.83 0.81 0.83 0.81 0.79 0.79	1.14 1.18 1.21 1.20 1.20 1.15 1.22 1.26 1.24 1.18 1.19 1.21 1.18	0.13 0.25 0.41 0.33 0.22 0.37 0.30 0.47 0.55 0.38 0.27 0.31 0.05 0.16	0.05 0.31 0.22 0.48 0.54 0.64 0.58 0.47 0.22 -0.25 -0.15 -0.17 -0.29 -0.08	-0.30 -0.57 -0.79 -0.68 -0.79 -0.66 -0.58 -0.40 -0.27 -0.38 -0.41 -0.10 0.19 0.27 0.22	-0.59 -0.66 -0.69 -0.68 -0.67 -0.64 -0.32 -0.26 -0.25 -0.42 -0.41 -0.44 -0.41	-0.30 -0.23 -0.24 -0.35 -0.28 -0.33 -0.74 -0.52 -0.64 -0.71 -0.87 -0.89 -0.85 -0.61	0.22 0.25 0.22 0.38 0.23 0.19 0.63 0.90 0.96 1.19 1.14 1.28 1.32 1.34 1.18	0.18 0.34 0.40 0.09 0.07 0.23 0.13 0.12 0.27 0.14 0.04 0.10	-0.42 -0.17 -0.35 -0.31 -0.41 -0.94 -0.73 -0.55 -0.43 0.21 0.23 0.02 -0.42	-0.08 -0.02 -0.04 0.09 0.10 0.25 0.09 -0.02 0.06 0.06 0.08 -0.05 -0.04 0.05	0.24 0.27 0.39 0.35 0.28 0.12 0.35 0.26 0.37 0.24 0.63 0.59 0.58 0.37
BMI CAPITAL	3/31/87 12/3186 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84	14 20 21 7 20 17 5 28 10 2 13 29 6 18 14	96 97 96 97 95 28 98 99 87 82 99	0.91 0.89 0.91 0.89 0.90 0.86 0.75 0.75 0.75 0.77 0.79 0.80 0.81	1.28 1.29 1.21 1.31 1.37 1.33 1.27 1.40 1.22 1.26 1.33 1.33 1.33	0.62 0.65 0.67 0.78 1.10 0.98 0.74 0.89 0.80 0.84 0.78 0.78 0.63 0.77	0.61 0.48 0.47 0.49 0.31 0.43 0.35 0.32 0.17 0.10 0.34 0.17 0.17 0.20 0.26	-0.19 -0.02 0.13 0.14 0.23 -0.13 -0.30 -0.78 -0.52 -0.66 -0.20 -0.44 -0.37 -0.53 0.26	-0.02 0.00 -0.01 -0.03 0.23 0.37 0.22 0.48 0.80 1.13 1.05 0.83 0.67 0.72 0.58	-0.34 -0.62 -0.43 -0.28 -0.14 0.03 0.13 0.67 1.06 1.04 0.56 0.63 0.32 0.31	1.56 1.27 1.15 1.50 1.60 1.48 1.14 1.47 1.42 1.49 1.41 1.17	0.60 0.89 0.76 1.07 0.95 0.96 0.59 0.74 0.63 0.23 0.11 -0.05 0.22 0.36 0.48	0.09 0.10 -0.09 -0.35 -0.08 -1.06 -0.80 -0.42 -0.14 -0.20 -0.24 0.01 -0.24 -0.40 -0.52	-0.64 -0.63 -0.74 -0.85 -0.84 -0.59 -0.40 -0.56 -0.61 -0.57 -0.44 -0.48	0.14 0.25 -0.04 -0.11 -0.17 0.08 -0.01 -0.25 -0.38 -0.33 -0.18 -0.23 -0.16 -0.14

MANAGER NAME	DATE	QTR. PORT. T/O	FQUITY ALLOC.	R2	EQUITY BETA	MVAR	EVAR	REL RET	P/B	5 YR EARN	SIZE	GROW	E/P	YIELD	FINL
FORSTMANN-LEFF	6/30/87	63	68	0.94	1.11	0.47	0.10	0.50	0.53	-0.01	-0.20	0.23	-0.30	-0.29	0.05
	3/31/87	77	77	0.95	1.21	0.51	-0.09	0.29	0.55	-0.09	-0.16	0.30	-0.15	-0.45	0.00
	12/31/86	54	71	0.88	1.29	0.64	0.29	0.90	1.01	0.24	0.19	0.44	-0.09	-0.58	-0.16
	9/30/86	60	51	0.85	1.53	1.33	0.59	0.44	0.43	0.44	1.08	1.07	-0.02	-0.82	-0.12
	6/30/86	71	87	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
HELLMAN JORDAN	6/30/87	44	78	0.93	1.22	0.59	0.13	-0.02	0.56	0.27	-0.39	0.78	0.08	-0.45	-0.28
	3/31/87	18	96	0.93	1.33	0.83	0.10	0.08	0.64	-0.16	-0.17	0.84	-0.17	-0.65	-0.05
	12/31/86	16	96	0.91	1.29	0.72	0.11	0.05	0.36	-0.22	-0.24	0.65	0.02	-0.64	-0.05
	9/30/86	20	96	0.90	1.34	0.87	0.07	0.22	0.30	-0.21	-0.18	0.89	-0.02	-0.70	-0.06
	6/30/86	15	98	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 12/31/83	30 43	58 51	0.87		0.25	0.15	0.03	-0.41	-0.22	0.01	0.19	-0.05	0.25	0.30 0.26
	12/31/63	43	21	0.74	1.23	0.16	0.09	-0.19	-0.23	-0.26	0.25	0.18	0.07	0.45	0.20
IDS ADVISORY	6/30/87	22	98	0.96	1.13	0.41	0.09	0.26	0.45	0.07	-0.09	0.38	-0.23	-0.30	-0.07
	3/31/87	38	97	0.96	1.14	0.44	0.05	0.42	0.65	0.07	-0.20	0.27	-0.15	-0.22	-0.15
	12/31/86	14	99	0.94	1.16	0.35	0.08	0.48	0.51	0.25	0.01	0.27	0.09	-0.21	-0.07
	9/30/86	28	95	0.92	1.19	0.45	0.22	0.58	0.35	0.32	0.18	0.23	0.10	-0.18	-0.03
	6/30/86	28	90	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 12/31/84	39 21	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
	9/30/84	40	89 92	0.83	1.05	0.04	-0.10	0.16	0.12	0.23	-0.07	-0.07	0.11	0.25	0.07 0.03
	6/30/84	42		0.89	1.08	0.17	-0.12	0.17	0.28	0.31	0.08	-0.04	0.19	0.23	
	3/31/84	41	87 82	0.85	1.04	-0.08	-0.15	0.28	0.54	0.31	0.28	-0.11	0.18 0.28	0.21 0.14	$0.17 \\ 0.04$
	12/31/83	41 45	82 89	0.80	1.09	0.11	-0.01	0.23	0.15	0.19	0.17	-0.13			0.04
	14/31/03	4 J	o y	0.86	1.17	0.24	0.23	0.27	0.15	-0.15	0.43	0.22	-0.34	-0.13	0.14

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	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/85 12/31/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84 12/31/83	9 8 15 12 22 13 32 4 10 28 9 21 8 21 16	82 82 77 77 84 84 83 95 90 89 97 88 98 92 89	0.95 0.95 0.93 0.94 0.95 0.93 0.92 0.90 0.91 0.88 0.86 0.89 0.89	1.06 1.08 1.07 1.12 1.17 1.12 1.14 1.15 1.17 1.17 1.19 1.21 1.21 1.17	0.19 0.27 0.24 0.31 0.55 0.48 0.39 0.45 0.60 0.51 0.39 0.40 0.11 0.05 0.06	0.05 0.06 0.12 0.06 -0.04 0.10 0.18 0.10 0.05 -0.12 -0.13 -0.23 -0.22	0.29 0.18 0.29 0.27 0.40 0.07 -0.22 -0.40 -0.33 -0.33 -0.20 -0.21 -0.28 -0.36 -0.30	0.85 0.72 0.45 0.34 0.28 0.02 0.04 -0.12 -0.26 -0.34 -0.23 -0.22 -0.17	0.01 0.08 0.02 0.07 0.06 -0.03 -0.01 0.07 0.14 0.16 -0.15 -0.00 0.09 0.14 -0.05	-0.14 -0.16 -0.12 0.00 -0.03 -0.11 -0.12 -0.02 -0.17 0.08 0.09 0.12 0.08 0.14 0.01	0.21 0.16 0.18 0.35 0.28 0.40 0.29 0.28 0.12 -0.02 -0.08 0.02 0.02	-0.13 -0.06 0.00 -0.17 -0.16 -0.57 -0.27 0.02 0.18 0.43 0.43 0.45 0.48 0.25 -0.09	-0.27 -0.27 -0.23 -0.39 -0.44 -0.29 -0.25 -0.19 -0.11 -0.01 -0.02 0.00	0.03 0.04 -0.02 -0.09 -0.10 0.02 0.03 -0.08 -0.06 0.04 0.06 0.21 0.22 0.17
LIEBER & COMPANY	6/30/87 3/31/86 9/30/86 6/30/86 3/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/83	11 15 14 11 7 14 12 6 14 19 14 17 10 0	97 94 99 99 99 97 98 99 85 95 87	0.86 0.85 0.89 0.90 0.86 0.85 0.80 0.81 0.79 0.80 0.81	1.25 1.27 1.28 1.31 1.32 1.31 1.30 1.30 1.27 1.24 1.34 1.31	0.17 0.27 0.35 0.44 0.59 0.63 0.53 0.54 0.55 0.65 0.74 0.76 0.65	-0.01 0.06 0.11 0.10 0.12 0.02 0.07 0.12 0.04 0.03 0.12 0.07 0.05 0.00	-0.51 -0.25 0.01 0.06 0.12 -0.06 -0.01 -0.04 -0.17 0.04 -0.25 -0.28 -0.37 -0.16 0.30	-0.04 -0.01 -0.08 -0.02 0.05 0.03 0.04 0.03 0.09 0.03 0.13 0.18 -0.06	0.27 0.22 0.13 0.24 0.15 0.16 0.27 0.35 0.40 0.35 0.49 0.52	1.50 1.58 1.47 1.44 1.50 1.49 1.56 1.64 1.83 1.79 1.99 1.99	0.74 0.59 0.49 0.52 0.55 0.48 0.50 0.36 0.17 0.48 0.51 0.42	0.19 0.15 0.19 0.15 0.14 0.00 0.02 -0.10 -0.05 -0.02 -0.01	-0.23 -0.34 -0.32 -0.36 -0.38 -0.39 -0.40 -0.35 -0.47 -0.48 -0.48	-0.27 -0.25 -0.17 -0.27 -0.33 -0.27 -0.31 -0.43 -0.21 -0.17 -0.18 -0.10
PEREGRINE CAPITAL	6/30/87 3/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84 12/31/83	26 41 50 50 37 47 53 9 58 49 37 61 26 66 92	79 79 81 83 84 82 80 75 89 87 97	0.84 0.86 0.86 0.79 0.76 0.81 0.82 0.78 0.79 0.81 0.83 0.82 0.87	1.10 1.12 1.18 1.12 1.18 1.19 1.21 1.22 1.48 1.41 1.37 1.36 1.39 1.28	-0.15 -0.11 0.12 -0.07 0.09 0.19 0.26 0.53 0.25 0.32 1.11 1.10 0.77 0.76 0.66	-0.04 0.00 0.04 0.06 0.27 0.16 0.18 0.37 0.00 0.07 0.39 0.43 0.37 0.26	-0.91 -0.90 -1.05 -1.06 -1.28 -1.53 -1.31 -1.26 -1.46 -1.28 -0.05 0.10 -0.59 -0.30 0.12	-0.61 -0.59 -0.57 -0.66 -0.75 -0.73 -0.63 -0.60 -0.53 0.72 0.89 0.49 0.82	-0.25 -0.19 -0.20 -0.26 -0.52 -0.41 -0.55 -0.45 -0.45 -0.27 0.22 0.23 0.31	0.67 0.54 0.51 0.50 0.62 0.73 0.88 0.36 1.06 1.01 1.88 1.70 1.45 1.29	-0.05 -0.04 0.16 0.12 0.17 0.20 0.10 0.15 0.07 -0.07 0.76 0.83 0.71 0.77	0.15 0.06 -0.15 0.00 -0.06 -0.31 -0.54 -0.33 -0.34 -0.09 -0.79 -0.82 -0.55 -0.59	0.69 0.57 0.42 0.47 0.56 0.51 0.33 0.22 0.27 -0.96 -0.95 -0.77 -0.67	0.12 0.10 0.12 0.17 0.22 0.19 0.27 0.24 -0.13 0.02 -0.11 -0.17 -0.09 -0.07

		QTR.													
MANAGER		PORT.	EQUITY		EQUITY			REL		5 YR					
NAME	DATE	T/O	ALLOC.	R2	BETA	MVAR	EVAR	RET	P/B	EARN	SIZE	GROW	E/P	AIETD	FINL
WADDELL & REED	6/30/87	45	86	0.92	1.25	0.54	0.16	0.03	0.28	-0.17	0.70	0.65	-0.30	-0.35	-0.09
•	3/31/87	29	90	0.93	1.22	0.65	0.18	-0.07	-0.05	-0.41	0.67	0.16	-0.17	-0.18	0.03
	12/31/86	42	73	0.95	1.13	0.38	0.16	0.06	-0.14	-0.47	0.23	-0.02	-0.11	0.09	-0.01
	9/30/86	38	78	0.94	1.14	0.38	0.07	0.03	-0.13	-0.17	0.00	0.02	0.13	0.10	-0.06
	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

#### TABLE A-5

#### EXTERNAL EQUITY MANAGERS

#### SECTOR WEIGHTING HISTORICAL PROFILE

#### EQUITY SECTOR WEIGHTS

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	ТЕСН	TRAN	UTIL
AVG. EXT. MANAGERS	6/30/87	600) dan 60a	4.2	5.4	29.1	4.6	12.8	16.8	20.6	3.6	2.9
	3/31/87		3.5	5.7	28.5	4.8	17.3	15.6	18.1	3.9	2.6
	12/31/86	1000 April 1000	3.1	5.2	29.4	3.7	19.0	15.1	16.0	5.0	3.5
	9/30/86	·	3.6	5.6	29.4	3.6	19.2	14.5	15.6	5.5	3.0
	6/30/86	MISS Grass deline	3.7	5.5	30.7	2.4	21.0	13.3	14.6	5.3	3.3
	3/31/86	500 Gras 4000	2.8	5.5	25.6	5.1	20.7	13.4	14.6	6.4	5.8
	12/31/85	F0 60 000	3.0	6.2	24.1	7.4	19.1	13.0	14.5	7.4	5.3
	9/30/85	NAO 600 620	2.8	6.6	27.5	4.2	18.4	12.7	16.8	7.6	3.4
	6/30/85	man time and	2.2	6.6	29.3	3.1	20.0	10.9	17.3	7.6	3.0
	3/31/85	disk Cold Color	2.4	6.8	26.4	3.6	17.5	11.4	22.2	6.8	3.0
	12/31/84	date class class	2.4	8.0	26.4	2.3	15.5	11.2	23.9	6.6	4.0
	9/30/84	THE COS (CO)	2.9	7.9	27.9	3.8	14.1	9.6	26.3	4.8	2.7
	6/30/84	Em 400 Em	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	diam delle diere	6.0	6.4	23.5	3.0	12.2	15.1	24.0	6.3	3.5
FRED ALGER	6/30/87	120,786,460	1.0	1.7	45.5	3.6	2.4	10.2	28.7	5.3	1.6
	3/31/87	120,744,512	1.3	2.5	43.1	2.1	12.1	11.6	25.1	2.2	
	12/31/86	101,957,413	2.0	3.0	44.1	6.5	10.8	12.2	20.4	0.9	dom film film
	9/30/86	96,875,274	1.9	3.7	49.6	the tree etc	12.8	4.6	18.8	8.7	-
	6/30/86	112,733,180	1.9	7.5	52.9	-	11.6	6.2	15.8	4.0	400 401 400
	3/31/86	103,958,164	1.7	8.2	46.5	d= ma db	17.4	5.9	18.7	1.6	
	12/31/85	86,744,768	1.7	11.7	38.7	ens ens des	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	600 WO the	17.6	36.0	1.4	9.3	3.5	15.7	16.6	000 to 000
	3/31/85	57,886,615	5.2	14.3	28.8	3.7	7.8	1.8	24.8	13.6	Qa 600 Gas
	12/31/84	54,018,782	5.2	16.1	36.1	too etc da	4.1	7.9	25.2	5.4	digg date disa
	9/30/84	53,908,974	9.3	15.4	33.7		0.8	11.4	23.5	6.0	Lines GOVD GOVD
	6/30/84	49,936,760	14.0	8.0	30.7	eren disp eren	3.8	11.5	29.5	2.6	comp etens diply
	3/31/84	51,737,228	13.3	4.3	28.8	Gree CHIP stem	3.4	18.3	31.9	Wiley Garge 4500y	tions days down
	12/31/83	55,644,200	13.2	6.6	21.7	eggs sitter stem	6.4	18.1	33.9	Cap 439 Cap	600 Om das

TOTAL

MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	тесн	TRAN	UTIL
FORSTMANN-LEFF	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84 12/31/83	107,438,093 105,717,837 88,281,072 85,396,871 95,703,997 87,886,861 73,996,082 63,626,068 66,383,632 61,436,421 55,396,358 53,550,733 51,218,131 52,083,507 55,421,154	2.6 1.3 1.4  1.1 2.5 1.4 4.5 3.7 7.6 5.7	1.4 10.4 6.6 4.0 7.9 9.7 7.4 9.8 10.5 4.6 3.6 3.6	25.2 31.0 44.6 28.8 25.2 18.1 25.7 41.6 40.1 25.7 30.9 32.5 40.2 37.0 35.5	0.9   2.1 6.6   5.8	2.3 22.5 16.7 19.0 22.4 34.7 25.2 20.9 25.1 25.5 23.3 21.5 7.0 6.0 3.9	42.1 30.8 20.5 17.2 13.2 17.4 22.1 6.4 10.3 14.7 15.1 14.5 10.3	25.0 10.6 9.6 18.9 23.7 10.1 8.9 12.1 11.0 17.4 13.3 18.9 24.3 23.1 18.7	4.4 5.1 5.9 5.7 5.2 8.1 6.7 2.8 5.1 4.4 5.5 3.6 7.2 6.0 5.3	1.3 1.1 6.3   3.7 2.8 3.1
HELLMAN JORDAN	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84 12/31/83	102,296,573 101,035,689 78,099,466 74,466,800 83,097,338 82,829,526 71,819,754 60,551,842 64,181,384 59,732,797 54,923,168 52,497,049 47,929,367 49,895,127 50,182,761	3.9	11.2 6.0 3.8 6.4 9.3 12.1 8.8 5.6 3.5  6.1 10.7 12.4 12.4	18.0 24.9 29.8 25.6 24.8 22.3 20.1 17.1 23.0 21.9 19.5 11.3 13.8 19.5 30.0	  2.2 9.4 6.9 7.0 5.9 1.1 0.8 1.2 6.4 6.0	22.1 25.6 31.7 33.5 32.7 29.8 23.5 26.9 26.0 25.3 19.8 14.0 16.4 15.7	9.8 5.8 7.3 8.1 10.7 13.6 18.7 17.2 15.5 13.6 17.1 15.3 21.2 15.7	34.0 31.3 23.2 23.3 20.1 18.4 15.2 13.8 7.5 16.1 20.3 29.3 12.6 4.3 2.1	4.9 6.3 4.1 3.2 2.4 1.7 2.9 4.7 3.5 6.7 9.2 12.0 11.1 8.8 3.0	1.4 7.7 10.0 9.2 5.7 5.0 9.6 17.2
INVESTMENT ADVISE	RS 6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84 6/30/84 3/31/84 12/31/83	101,936,871 98,002,073 81,868,013 78,677,066 86,330,923 82,520,514 73,389,199 61,953,366 66,785,302 62,742,678 58,967,426 55,807,710 50,388,386 51,864,720 54,533,402	6.4 5.4 4.5 5.2 8.2 5.6 4.0 3.4 3.3 3.7 5.5 6.3	3.1 3.2 2.2  3.3 6.6 6.5 8.8 6.0 6.4 7.2 5.9 5.4 6.3	31.9 28.5 31.0 33.0 20.6 15.7 8.3 6.5 6.1 13.6 21.5 26.3 30.2 25.0	3.6 3.0 2.9 2.9 1.0 2.3 3.0 2.9 3.2 2.8 5.9 6.9 6.2 8.9	1.1 6.9 7.6 9.6 9.6 12.6 15.9 18.8 16.3 20.5 21.0 18.8 21.5 21.9	30.7 29.1 25.8 28.6 26.5 23.8 18.5 20.2 17.1 19.9 19.2 13.1 9.1 7.7 9.7	14.4 11.9 10.1 14.7 13.2 18.8 24.4 28.3 29.0 32.9 19.9 20.2 20.6 15.6 15.7	3.4 7.4 9.7 8.0 8.6 13.4 12.2 12.8 13.2 12.6 10.8 5.6 3.7 3.9 6.1	5.4 5.3 6.7  2.6 2.9 1.8  0.6 0.8 3.9 1.0 3.2

TOTAL

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MANAGER NAME	DATE	TOTAL PORTFOLIO MARKET VALUE	CAP GDS	CONS DUR	CONS NDUR	ENER	FINL	MAT & SERV	тесн	TRAN	UTIL
WADDELL & REED	6/30/87	116,141,569	4.1	10.2	19.1	9.0	2.9	20.8	30.7	2.3	0.8
	3/31/87	113,451,543	1.1	13.6	19.7	16.1	5.2	15.3	24.0	3.8	1.1
	12/31/86	95,836,775	1.6	11.2	21.7	12.3	12.3	16.1	19.2	5.6	9 5
	9/30/86	91,162,262	2.9	8.5	21.7	12.4	12.9	14.6	18.9	6.6	1.5
	6/30/86	97,376,898	4.4	7.8	26.0	0.4	20.7	21.7	12.4	6.6	em 600 400
	3/31/86	95,498,169	4.3	7.3	13.0	2.9	23.3	24.9	16.9	7.3	600 cm cm
	12/31/85	82,027,227	4.6	7.7	17.0	5.4	15.2	25.9	15.0	9.1	2 2
	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	Cim Cit Cip	12.8	11.9	2.7	21.5	15.8	16.3	7.9	11.2
	12/31/84	26,234,116	000 tim em	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	400 cm cm	15.7	400 Apr 600	17.8	11.8	days diese Many
	3/31/84	25,833,644	5.2	32.1	21.4		25.0	Gra (42) (22)	11.7	4.5	-
	12/31/83	11,409,742	12.8	32.4	une des con	effect films equi	33.9	1000 Casy 1009	20.9	itto the iller	ويون ميت منت
WILSHIRE 5000	6/30/87	, The spin the	4.8	4.0	27.3	9.8	12.3	13.4	13.6	3.1	11.7
	3/31/87	three quasi-stills	4.6	3.9	27.5	9.4	13.0	13.6	12.9	3.0	12.1
	12/31/86	NUMBER OF STREET	4.6	3.8	27.2	9.0	13.5	12.6	12.2	3.0	14.1
	9/30/86		4.4	3.8	26.9	9.0	14.0	12.1	12.4	3.1	14.3
	6/30/86	this day 100	4.5	4.0	28.8	7.8	14.0	12.4	12.6	3.0	12.9
	3/31/86	the tax (20	4.8	4.7	27.0	8.0	14.1	11.8	13.4	3.3	12.9
	12/31/85	tion days filide	4.8	4.2	25.7	10.5	12.9	11.4	14.2	3.3	13.0
	9/30/85	time days cities	4.7	4.1	26.2	10.6	12.3	11.4	14.0	3.4	13.3
	6/30/85	to to the	4.8	4.0	26.3	11.2	12.2	10.8	13.6	3.6	13.5
	3/31/85	Miles stage skills	4.9	3.9	25.3	13.0	11.4	10.9	14.4	3.3	12.9
	12/31/84	distriction days	5.4	9.9	23.0	13.5	9.9	10.6	13.2	3.7	10.8
	9/30/84	90 See 110	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	tion time time	5.4	3.9	23.6	16.1	9.8	12.1	15.3	2.9	11.1
	12/31/83	To 600 TH	5.5	4.2	24.0	14.5	9.5	12.2	16.3	2.8	11.1

TABLE A-6

#### EXTERNAL EQUITY MANAGERS

#### HISTORICAL PERFORMANCE SUMMARY

	1Q 87	2Q 87	3Q 87	4Q 87	1Q 88	2Q 88	3Q 88	4Q 88	1Q 89	2Q 89	3Q 89	4Q 89
FRED ALGER												
Equity		-0.6										
Total Fund	18.4	0.0										
ALLIANCE CAPITAL												
Equity	28.8	4.9										
Total Fund	27.4	4.6										
BEUTEL GOODMAN												
Equity	18.6	6.4										
Total Fund	17.6	5.3	,									
BMI CAPITAL	05 0	3 0										
Equity	25.8	1.2										
Total Fund	24.8	1.2										
FORSTMANN-LEFF	05 3											
Equity	25.7	2.1										
Total Fund	19.8	1.6										
HELLMAN JORDAN	20.2	3 0										
Equity Total Fund	30.2 29.4	1.8 1.3										
IDS ADVISORY	47.4	T.3							•			
Equity	23.1	3.9										
Total Fund	22.4	3.7										
INVESTMENT ADVISERS	2207	3.,										
Equity	24.9	4.9										
Total Fund	19.7	4.0										
LIEBER & COMPANY	130,	7.0										
Equity	21.2	-1.4										
Total Fund	20.1	-1.3										
PEREGRINE CAPITAL												
Equity	21.8	1.5										
Total Fund	17.3	1.4										
WADDELL & REED												
Equity	23.0	2.6										
Total Fund	18.4	2.4										
SBI AGGREGATE												
Equity	23.6	2.9										
Total Fund	21.0	2.6										
MARKET INDICES												
Wilshire 5000	21.2	3.3										
S&P 500	21.3	5.1										
91 Day T-Bills	1.4	1.4										
4												

(Previous historical performance data can be found on the following page).

TABLE A-6

#### **EXTERNAL EQUITY MANAGERS**

#### HISTORICAL PERFORMANCE SUMMARY

					1											
	8000 M 600	2Q 83	3Q 83	4Q 83	10 84	2Q 84	3Q 84	4Q 84	1Q 85	2Q 85	3Q 85	4Q 85	1Q 86	2Q 86	3Q 86	4Q 86
	FRED ALGER	12 00	2 52	7 00												
	Equity	13.9%	-3.5%	-1.0%	-8.1%	-4.1%	8.3%	0.2%	7.3%	10.1%	-4.78	20.0%	21.2%		-14.78	5.7%
	Total Fund	13.1	-3.4	-0.9	-7.0	-3.5	8.0	0.2	7.2	9.1	-4.6	18.7	19.8	8.5	-14.1	5.3
	ALLIANCE CAPITAL	343	0 7		110											
	Equity	14.3	-8.7	-0.6	-11.2	2.2	7.1	1.3	13.1	11.5	-3.6	19.2	20.0	6.1	-11.9	5.3
	Total Fund	12.7	-8.0	-0.4	-10.1	2.2	6.6	1.3	12.2	10.8	-3.3	17.8	19.3	5.9	-11.8	5.2
	BEUTEL GOODMAN Equity	13.9	3.4	3.5	0 "		10.7									
	Total Fund	8.7	1.1	3.3	-0.7 -0.6	-2.8 -2.8	10.1	5.1	12.1	8.1	-9.0	12.5	15.7	-0.9	-4.8	-1.2
	BMI CAPITAL	8.7	1.1	3.3	-0.6	-2.8	9.3	4.9	10.7	7.5	-8.6	12.0	14.3	-0.6	-4.2	-1.3
	Equity	14.4	-7.8	-6.0	144	0 1	2 6		10 5			20.4				
	Total Fund	11.9	-7.7	-6.1	-14.4 $-14.5$	2.1	3.6	2.3	10.5	-0.7	-9.9	19.4	18.6	7.2	-9.7	5.8
	FORSTMANN-LEFF	11.9	-/./	-0.1	-14.5	2.0	3.4	2.2	9.3	-0.9	-2.4	11.1	17.8	7.0	-9.4	5.5
	Equity	11.2	-1.7	-1.0	-8.3	-2.8	7.5	2 7	306	0.4	F 4	03 5	00.0	10.1	1.0	
,	Total Fund	9.9	-1.2	-0.6	-6.0	-1.7	4.6	3.7 3.4	12.6 10.9	9.4 8.1	-5.4 -4.2	21.5 16.3	20.8 18.8	10.1 8.9	-16.0 $-10.8$	5.7
	HELLMAN JORDAN	203	-1.02	-0.0	~0.0	-1.7	4.0	3.4	10.9	0.1	-4 · Z	10.3	10.0	0.9	-10.0	3.4
•	Equity	10.0	-9.5	-0.9	-3.1	-4.8	8.6	4.3	10.0	9.5	-5.9	19.4	16.1	0.4	-10.7	E 2
ŀ	Total Fund	5.8	-3.2	-1.0	-0.6	-3.9	9.5	4.6	8.7	7.5	-5.6	18.6	15.3	0.3	-10.7	5.2 4.9
	IDS ADVISORY		3	1.00	0.0	3.5	2.5	7.0	0.7	1.5	-5.0	10.0	13.3	0.3	-10.4	4.9
	Equity	14.3	-6.6	-0.9	-8.4	0.0	11.4	3.2	9.2	10.7	-5.9	20.5	18.2	8.1	-10.6	4.8
	Total Fund	13.6	-5.6	-0.6	-7.3	0.4	10.3	3.0	8.5	10.1	-5.9	19.7	17.2	7.5	-10.0	4.5
	INVESTMENT ADVISERS						2000	3.0	0.5	1001	3.5	13.7	1,02	7 . 3	10.1	
	Equity	11.6	-2.9	1.5	-5.8	-3.0	11.3	5.8	6.6	7.1	-7.8	20.5	14.7	5.3	-11.1	4.9
	Total Fund	8.0	-1.8	1.3	-4.9	-2.8	10.7	5.7	6.4	6.4	-7.2	18.5	12.4	4.6	-8.9	4.1
	LIEBER & COMPANY															- T 0 AL
	Equity	16.6	-2.4	1.7	-10.2	-1.3	8.9	2.9	13.8	6.3	-1.7	15.2	13.8	11.8	-9.5	0.3
	Total Fund	11.6	-1.9	1.3	-7.3	-1.4	7.9	2.6	11.6	6.0	-1.9	14.6	13.9	11.0	-9.5	0.1
	PEREGRINE CAPITAL															
	Equity	19.6	-3.6	-6.0	-8.8	-3.2	5.3	-2.1	9.5	10.7	0.4	15.5	7.7	2.1	-5.7	5.2
	Total Fund	16.4	-2.6	-5.1	-7.4	-2.7	4.7	-1.9	7.8	9.1	-1.9	12.8	6.5	1.9	-4.7	4.4
	WADDELL & REED	20.0	4 =													
	Equity	30.2	-4.7	-9.3	-14.0	-10.3	-1.6	0.7	8.1	8.7	-5.4	18.4	19.7	2.4	-8.3	6.2
	Total Fund SBI AGGREGATE	24.0	-3.0	-5.3	-2.2	-1.3	1.4	1.5	5.2	7.0	-2.0	10.4	16.4	2.0	-6.4	5.1
	Equity	12.1	-5.6	1 6	7 6											
	Total Fund	10.5	-4.5	-1.5	-7.5	-2.7	8.0	2.4	9.5	8.8	-5.7	17.7	16.6	5.0	-1.4	4.4
	Local Fulla	10.3	-4.5	-1.2	-5.9	-2.2	7.2	2.4	8.4	8.0	-4.5	15.2	15.2	4.5	-8.6	3.9
	MARKET INDICES															
	Wilshire 5000	13.0	-0.9	-1.0	-4.2	-2.8	9.2	1.3	10.3	7.5	-4.3	16.8	14.4	E 0	7 7	4 0
	S&P 500	11.1	-0.1	0.4	-2.4	-2.5	9.2	1.8	9.2	7.4	-4.3	17.3	14.4	5.8 6.0	-7.7 -7.0	4.0 5.4
	91 Day T-Bills	2.2	2.4	2.3	2.4	2.6	2.7	2.3	2.1	1.9	1.9	1.8	14.1	1.6	1.4	1.3
	4		~ ,	203	4 0 -7	ت و ت	201	£ . J	4.1	エップ	エ・ブ	T . O	T . Q	1.0	1.4	1.3

#### 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	6/30/87	44	44	93	8.4	8.4	8.9	AAA	4.4	7.5
	3/31/87	30	39	91	8.6	8.3	8.0	AAA	4.9	8.3
	12/31/86	30	40	94	9.2	8.6	8.2	AAA	5.4	9.5
	9/30/86	19	41	99	9.5	9.2	9.3	AAA	5.0	10.6
	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.		15	19	92	7.7	7.6	8.3	AAA	3.5	4.5
	3/31/87	7	24	97	8.6	8.1	8.0	AAA	3.4	4.3
	12/31/86	11	25	93	8.9	8.4	8.1	AAA	3.5	4.4
	9/30/86	5	22	98	9.4	8.6	8.5	AAA	3.5	4.4
	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 12/31/84	19	13	99	8.7	9.3	11.7	AAA	4.9	8.9
		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.	6/30/87	36	46	92	7.9	8.1	8.2	AAA	3.7	5.0
	3/31/87	51	46	91	8.5	8.1	7.3	AAA	3.9	5.6
	12/31/86	40	45	94	9.6	8.9	7.5	AAA	4.3	6.7
	9/30/86	31	44	98	10.2	9.4	8.2	AAA	4.4	8.6
	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 6.6
	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

MANAGER	QUARTER	PORTFOLIO	# OF	BOND	GOUDON	CURRENT	YIELD	AVERAGE	DUDAMION	TERM TO MAT.
NAME	DATE	т/О	BONDS	ALLOCATION	COUPON	Alerd	TO MAT.	QUALITY	DURATION	
MILLER ANDERS	SON 6/30/87 3/31/87 12/31/86	52 70 30	76 43 57	95 82 96	9.0 8.4 9.5	8.8 7.9 8.8	8.9 7.8 8.2	AA AA AA	5.4 4.8 6.6	8.6 7.6 12.1
	9/30/86 6/30/86	15 57	68 60	99 97	9.3 9.4	9.3 9.3	9.8 9.5	AA AA	5.6 5.2	12.5 11.6
	3/31/86	73	37	92	10.5	9.7	8.8	AA	4.4	11.4
	12/31/85 9/30/85	71 23	42 52	99 98	10.4	9.9 10.2	9.6 10.6	AA AA	5.3 5.0	9.6 9.7
¥	6/30/85 3/31/85	75 35	48 41	95 92	9.3 9.0	10.0 10.0	10.4 11.1	AA AA	4.6 3.7	9.3 7.4
1	12/31/84 9/30/84	50 83	43 59	99 71	9.1 9.8	10.1 11.1	11.3 11.9	AA AAA	3.9 3.3	7.3 6.7
MORGAN STANLE	3/31/87	107 17	9 18	93 98	7.8 8.3	8.0 8.3	8.2 8.3	<b>AAA</b> AAA	3.4 6.2	5.1
	12/31/86 9/30/86	<b>42</b> 9	19 14	100 100	7.7 8.4	8.5 8.7	8.3 8.9	AAA AAA	6.5 5.3	11.0 10.7
	6/30/86 3/31/86	89 62	13 20	100 100	8.6 9.4	8.9 9.0	9.1 8.7	AAA AAA	5.4 5.4	10.8 19.9
	12/31/85 9/30/85	58 18	17 20	100	10.4 11.2	10.1 11.1	9.9 11.0	AAA AAA	5.0 4.4	10.6 9.8
<b>&gt;</b>	6/30/85 3/31/85	38 62	17 16	100 85	11.4	10.8 11.3	10.5 11.5	AAA AAA	5.0 3.8	9.7 7.3
l N の	12/31/84 9/30/84	30 105	12 20	100 99	11.5	11.5	11.5	AAA AAA	5.3 3.7	9.4 5.3
	3, 60, 61	200								
PEREGRINE	6/30/87 3/31/87	8 6	64 62	93 92	9.2 9.4	9.1 9.0	10.8	AA AA	4.4 5.2	8.7 9.5
	12/31/86	24	52	84	10.5	8.1	8.5	AA	4.7	8.9
	9/30/86 6/30/86	14 12	56 51	97 97	10.3	9.8 10.2	11.3	AA AA	4.5 4.3	11.0 9.7
	3/31/86 12/31/85	10 18	54 51	98 98	11.2 11.5	10.3 10.8	9.4 10.4	AA AA	4.1 3.7	11.0 9.3
	9/30/85 6/30/85	20 15	43 35	96 98	11.6 11.2	11.2 10.8	11.0 10.5	AA AA	3.3 3.4	7.8 7.6
	3/31/85 12/31/84	13 39	28 25	100 96	11.1 10.5	11.3 10.9	11.5 11.3	AA AA	3.7 3.5	7.6 7.5
	9/30/84	17	21	93	10.6	11.7	12.5	AA	3.6	7.6
WESTERN ASSEI	6/30/87	46	52	94	8.8	9.0	9.2	AA	6.2	13.2
	3/31/87 12/31/86	31 33	4 0 4 0	87 95	8.6 8.8	8.3 8.7	8.3 8.6	AA AA	5.7 6.7	11.6 13.9
	9/30/86 6/30/86	38 97	40 48	100 90	9.6 9.3	9.1 9.0	9.0	AA AA	6.4 5.6	16.4 15.7
	3/31/86 12/31/85	58	48	95	9.8	9.8	9.3	AA	5.5	18.9
	9/30/85	47 19	40 34	87 89	10.3	10.1	10.0	AA AA	5.2 5.6	11.9 13.0
	6/30/85 3/31/85	58 52	29 28	84 87	10.5 10.4	10.7 11.5	10.8 12.1	AA AA	5.4 5.3	12.1 12.2
	12/31/84 9/30/84	39 49	24 19	80 80	10.6 11.3	11.4 12.3	11.8 12.8	AA AA	5.2 4.8	11.3 11.3

## EXTERNAL FIXED INCOME MANAGERS SECTOR WEIGHTING HISTORICAL PROFILE

MANAGER		TOTAL PORTFOLIO MARKET	QI	UALIT	/ WEI	GHTIN	IGS				SECT	OR WEI	GHTIN	IGS			
NAME	DATE	VALUE	AAA	AA	A	BAA	OTHER	GOVT	AGCY	ZERO	IND	UTIL	FIN	TRAN	MTGS	MISC	CASH
AVG. EXT. MGRS.	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84		76 77 74 76 78 79 80 81 81 78 77	5 5 6 6 6 5 5 6 10 12	11 11 13 12 10 9 8 8 6 6 7 7	5 4 3 3 3 3 2 1 3 2 2 2	3 3 3 3 5 5 4 4 2	36 32 29 29 28 35 35 33 34 27 33	3 2 3 3 6 2 3 3 1 5 8	2 2 2 3 2 2 2 4 4 4 7 7	8 10 12 11 9 6 7 5 5 2 3	2 2 1 2 2 2 2 2 2 4 6 8 8	14 7 9 9 10 9 9 9 12 12	1 1 1 1 0 0 0 0 0 0	24 32 35 39 37 34 35 39 36 31 24	3 3 2 3 3 3 1 1 1	7 9 6 1 4 4 5 4 5 9 7
INVESTMENT ADV.	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84	42,121,121 42,655,770 42,094,854 40,731,041 39,301,944 38,938,391 36,766,845 34,573,707 33,794,148 30,942,776 30,397,636 27,932,974	96 86 80 78 81 84 96 96 96 74	0 4 7 8 8 8 4 4 4 15 26 28	4 10 13 14 11 8 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	56 51 40 45 34 52 68 70 62 53 52 59	9 5 5 5 18 0 0 0 0 0	13 12 11 12 12 12 13 23 18 18	0 11 13 23 23 25 8 9 10 11	0 0 0 0 0 0 0 0 0 13 25 31	6 9 15 13 10 6 7 7 4 4 4	0 0 0 0 0 0 0 0 0 0 0 0	8 9 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 3 7 2 4 5 5 1 1 1
LEHMAN MGMT.	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84	235,159,610 238,911,690 236,321,758 229,994,337 223,483,722 220,998,995 207,462,430 194,774,253 190,808,742 177,383,853 173,831,628 162,737,117	88 85 81 80 89 89 87 91 95 98	6 9 6 4 4 5 6 5 3 0	5 4 11 12 6 6 6 7 4 2 2 2	0 0 0 0 1 1 0 0 0	1 2 2 2 0 0 0 0 0 0	63 63 58 53 60 65 51 54 64 65 64	0 0 0 0 0 2 10 12 8 13 13	0 0 0 0 0 0 0 0	9 12 14 14 11 9 7 9 5 2 3	1 2 3 8 2 0 2 2 2 0 0	7 5 7 7 7 6 7 7 4 2 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 9 12 16 18 15 12 11 9 3	0 0 0 0 0 0 0	8 9 6 2 3 3 11 5 8 15 15

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W W GDD		TOTAL PORTFOLIO MARKET	Qt	JALITY	WEI	GHTIN	IGS				SECT	OR WEI	GHTIN	IG <b>S</b>			
MANAGER NAME	DATE	VALUE	AAA	AA	A	BAA	OTHER	GOVT	AGCY	ZERO	IND	UTIL	FIN	TRAN	MTGS	MISC	CASH
MILLER ANDERSON	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84	248,119,545 252,209,582 245,302,600 222,348,832 217,656,629 217,291,031 208,552,908 191,849,284 183,857,869 173,961,916 169,696,156 159,574,376	67 75 68 72 71 74 71 68 69 54 55	5 2 2 3 5 0 0 1 3 13 17 12	7 3 6 5 4 5 6 9 8 11 14 5	6 5 3 6 5 5 4 4 4 2 5 2	15 15 21 14 15 16 19 18 16 20 9	37 42 38 24 25 45 45 24 19 2 0	0 0 0 0 0 0 0 0	1 0 0 0 0 0 0 0 0 2 4 7	9 5 7 6 2 2 2 5 5 7 5 2	0 0 0 0 0 0 0 0	17 3 6 8 8 8 9 12 27 36 17	1 0 0 0 0 0 0 0 0	30 30 44 61 60 37 44 60 57 52 51	0 1 1 2 2 0 0 0 0 0	5 18 4 1 3 8 1 2 5 8 1 2 9
MORGAN STANLEY  A I N O	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84	198,820,186 246,865,703 239,857,185 229,631,966 222,763,940 225,686,690 208,381,895 193,513,567 188,907,479 173,106,782 170,547,941 159,109,110	100 100 100 100 100 100 100 100 100	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	54 25 27 35 33 41 42 41 49 38 74 45	0 0 0 0 9 0 0 0 0 9	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	29 75 73 65 58 59 58 59 51 38 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 2 0 0 0 0 0 0 0 0 15
PEREGRINE	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84	112,206,244 114,089,715 111,810,642 108,237,995 104,606,143 104,370,666 100,139,659 95,186,493 92,417,709 86,259,088 84,387,890 79,887,650	41 47 47 49 48 55 61 56 55 65	18 12 14 14 19 18 13 12 15 23 13 14	34 32 29 32 31 32 29 25 20 19 18 24	5 7 4 2 0 0 0 0 7 3 4 4	2 2 6 3 2 2 3 2 2 0 0	0 0 0 0 0 0 0 0 0 3 6	0 0 0 0 0 0 0 0 0 7 7	0 0 0 0 0 0 0 0 0 0 0 0 0	14 15 22 12 9 9 5 4 4 0 0	0 1 0 0 0 0 0 2 5 5 5	31 24 20 26 30 31 29 31 33 38 30 31	1 0 0 0 0 0 0 0 0	29 34 31 47 41 40 48 52 49 47 48 33	18 17 11 13 17 17 16 7 7 7 0	7 8 16 2 3 2 2 4 2 0 4 7
WESTERN ASSET	6/30/87 3/31/87 12/31/86 9/30/86 6/30/86 3/31/86 12/31/85 9/30/85 6/30/85 3/31/85 12/31/84 9/30/84	253,510,478 262,481,416 255,942,435 244,004,935 238,657,259 235,514,306 220,363,561 201,666,058 197,929,627 181,426,695 177,328,832 165,957,816	64 69 69 75 80 76 73 74 73 76 69	3 2 2 2 2 4 5 6 9 9 15 15	15 16 17 11 8 5 8 5 4 4 7	18 11 10 11 9 14 7 4 8 7 5	0 2 2 1 1 7 11 6 4 4 3	5 8 16 13 7 5 11 10 4 3	7 6 11 13 9 9 8 3 0 11 11	0 1 0 2 3 3 1 0 0 0	19 16 20 9 7 12 15 14 8 8 6	10 10 5 7 7 9 10 15 16 19	11 4 5 4 2 2 2 2 0 0 0 2 4	3 3 4 4 1 1 1 1 2 5	39 36 42 43 45 52 49 51 47 33 26	0 3 1 2 0 0 0 0 0 0 0 4 4	6 13 5 0 10 5 11 12 15 13 20 20

TABLE A-9

EXTERNAL FIXED INCOME MANAGERS

#### HISTORICAL PERFORMANCE SUMMARY

	2Q 87	1Q 87	4Q 86	3Q 86	2Q 86	1Q 86	4Q 85	3Q 85	2Q 85	1Q 85	4Q 84	3Q 84
INVESTMENT ADVISERS Fixed Income Total Fund	-0.9 -0.9	1.0%	2.8% 2.7	2.5%	0.9% 0.9	6.2% 5.9	6.5% 6.3	2.5% 2.3	9.4% 9.2	1.9% 1.8	8.8% 8.8	11.8%
LEHMAN MANAGEMENT												
Fixed Income Total Fund	-1.7 -1.6	1.0	2.8 2.8	3.0 2.9	1.2 1.1	6.7 6.5	6.9 6.5	2.1 2.1	8.7 7.6	2.0 2.1	7.7 6.8	9. <b>6</b> 8.7
MILLER ANDERSON												
Fixed Income Total Fund	-2.0 -1.6	3.2 2.8	10.6 10.3	2.2 2.2	0.2 0.2	4.4	8.8 8.7	4.4	6.0 5.7	2.5 2.5	7.5 6.3	7.7 6.7
MORGAN STANLEY												
Fixed Income Total Fund	-5.6 -3.1	3.1 2.9	4.3	3.1 3.1	-2.1 -1.3	8.2 8.3	7.7 7.7	2.5	9.3 9.1	1.5 1.5	7.3	6.1 6.3
PEREGRINE CAPITAL Fixed Income Total Fund	-1.9 -1.7	2.2	3.4 3.3	3.6 3.5	0.2	4.3	5.4 5.2	3.1 3.0	7.3 7.1	2.3 2.2	6.0 5.6	7.7 6.9
WESTERN ASSET	-1.7	2.0	3.3	3.3	0.2	4 . 2	3.2	3.0	/ • 1	2.02	5.0	0.5
Fixed Income Total Fund	-3.9 -3.4	2.6 2.6	5.0 4.9	2.3 2.2	0.9 1.3	7.4 6.9	10.7 9.3	1.9 1.9	10.7 9.1	2.4	8.0 6.8	11.8 10.8
SBI FIXED INCOME AGGREGATE												
Fixed Income Total Fund	-2.8 -2.3	2.4	5.3 5.2	2.8 2.7	1.7 0.4	6.4 6.2	8.1 7.7	2.8 2.7	8.5 7.8	2.1 2.1	7.5 6.8	8.8 8.1
MARKET INDEX												
Salomon Broad Bond Index	-1.6	1.3	3.3	2.5	1.1	7.9	7.8	2.0	8.9	2.2	7.5	8.6

## ALTERNATIVE EQUITY INVESTMENTS JUNE 30, 1987

REAL ESTATE:	INCEPTION DATE	FUND SIZE (MILLIONS)	SBI COMMITMENT	SBI-FUNDED	SBI- TO BE Funded	FUND DESCRIPTION
EQUITABLE AETNA PRUDENTIAL RREEF- USA III HEITMAN II HEITMAN III HEITMAN III TCW I TCW II STATE STREET I	10/81 4/82 9/81 4/84 6/84 10/85 11/86 7/85 9/86 7/85	\$2,849.7 \$1,592.0 \$4,584.0 \$773.0 \$113.0 \$238.0 \$200.0 \$216.0 \$250.0 \$103.0 \$86.0	\$40,000,000.00 \$40,000,000.00 \$40,000,000.00 \$75,000,000.00 \$20,000,000.00 \$30,000,000.00 \$20,000,000.00 \$40,000,000.00 \$30,000,000.00 \$30,000,000.00 \$30,000,000.00 \$15,000,000.00	\$40,000,000.00 \$40,000,000.00 \$40,000,000.00 \$67,000,000.00 \$20,000,000.00 \$30,000,000.00 \$10,000,000.00 \$40,000,000.00 \$15,000,000.00 \$20,000,000.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$10,000,000.00 \$0.00 \$15,000,000.00 \$0.00 \$0.00	OPEN - DIV. OPEN - DIV. OPEN - DIV. CLOSED - SPEC. CLOSED - SPEC. CLOSED - SPEC. CLOSED - SPEC.
TOTAL R.E. PORTFOLIO	uis uis	ф т	\$370,000,000.00	\$337,000,000.00	\$33,000,000.00	**
VENTURE CAPITAL:						
NORWEST KKR I KKR II SUMMIT FIRST CENTURY DSV MATRIX INMAN/BOWMAN ALLIED SUPERIOR VENTURE	1/84 3/84 12/85 12/84 12/84 4/85 7/85 6/85 7/85 6/86	\$60.0 \$1,000.0 \$2,000.0 \$93.0 \$100.0 \$60.0 \$70.0 \$44.0 \$40.0	\$10,000,000.00 \$25,000,000.00 \$50,000,000.00 \$10,000,000.00 \$10,000,000.00 \$10,000,000.00 \$10,000,000.00 \$7,500,000.00 \$5,000,000.00 \$6,600,000.00	\$10,000,000.00 \$25,000,000.00 \$14,591,340.00 \$7,500,000.00 \$2,500,000.00 \$10,000,000.00 \$7,500,000.00 \$3,750,000.00 \$3,333,334.00 \$1,661,250.00	\$0.00 \$0.00 \$35,408,660.00 \$2,500,000.00 \$7,500,000.00 \$0.00 \$2,500,000.00 \$3,750,000.00 \$1,666,666.00 \$4,938,750.00	EARLY STAGE LBO LBO LATER STAGE EARLY STAGE EARLY STAGE EARLY STAGE EARLY STAGE LATER STAGE EARLY STAGE EARLY STAGE
TOTAL V.C. PORTFOLIO	un est	m w	\$144,100,000.00	\$85,835,924.00	\$58,264,076.00	• •
RESOURCES:						
AMGO I AMGO II APACHE I APACHE II APACHE III	7/81 2/83 5/84 10/85 12/86	\$144.0 \$36.0 \$150.0 \$180.0 \$190.0	\$15,000,000.00 \$7,000,000.00 \$22,500,000.00 \$23,000,000.00 \$30,000,000.00	\$15,000,000.00 \$7,000,000.00 \$766,916.75 \$22,400,000.00 \$30,000,000.00	\$0.00 \$0.00 \$21,733,083.25 \$600,000.00 \$0.00	DEBT WITH EQUITY DEBT WITH EQUITY DEBT WITH EQUITY DEBT WITH EQUITY NET PROFITS INT.
TOTAL RES. PORTFOLIO	as de		897,500,000.00	<b>\$75,166,916.75</b>	#22,333,083.25	• •
TOTAL ALT. INV. PORT	<b></b>	nio 100	\$611,600,000.00	<b>\$498,002,840.75</b>	\$113,597,159.25	

#### 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 & TRADING VOLUME BY BROKER FISCAL YEAR 1987

BROKER	EQUITY DOLLAR VOLUME	EQUITY COMMISSIONS	BOND DOLLAR VOLUME	BOND COMMISSIONS	SHORT TERM DOLLAR VOLUME
Abel/Noser Corp.	2,485,806.95	5,610.00 1,380.50 2,356.00 0.00 0.00 252.00	0.00	0.00	0.00
Abrams & Co.	537,579.25	1,380.50 2,356.00	0.00	0.00 0.00	0.00
Allen & Company	1,270,500.00	0.00	0.00 0.00 2,607,865.00	0.00	0.00
Adams Harkness & Hill Allen & Company Allison-Williams American Express Credit American Securities Assoc. Corp. of N. Amer. Autranet	0.00	0.00 252.00	2,607,865.00 0.00	0.00 0.00	0.00 52,027,000.00
American Securities	112,077.00	252.00	0.00	0.00	0.00
Assoc. Corp. of N. Amer. Autranet	0.00	252.00 252.00 0.00 262,997.97	0.00	0.00	96,722,000.00
Bank of America	0.00	0.00	23,716,016.67 6,000,000.00	0.00 0.00 0.00 0.00	0.00 104,922,075.54
Bankers Discount Corp.	0.00	0.00	3,399,375.00	0.00	0.00
Bankers Trust Barclays American Corp.	0.00	0.00 0.00	0.00	0.00 0.00	79,780,504.50 702,000.00
Barrington Trading Co.	0.00 0.00 88,758,886.77	0.00	22 720 460 75	0.00	0.00
Bear Stearns & Co. Beneficial Corp.	0.00	177,817.50 0.00	141,095,535.49	12,500.00	6,908,446,000.00 28,000,000.00
Beneficial Corp. Boston Inst. Services Brandt (Robert) & Co. Brean Murray	59,028,702.63	103,454.50	3,147,187.50	0.00	0.00
Brandt (Robert) & Co. Brean Murrav	56,475,352.28	56,298.00 165,376.15	0.00 0.00	0.00 0.00	0.00
		7,744.50	0.00	0.00	0.00
Bridge Trading Co. Briggs & Schaedle	2,5/1,3/5.56 81,436,157.79 0.00	171,040.98 0.00	0.00 0.00	0.00 0.00	0.00 5,904,146.67
Broker Unavailable	804,211,906.15	222.026.81	311,927,899.49	0.00	18,580,000.00
Brown Alex & Sons Brown Bros. Harriman	5,079,053,20	1,533.00 1,740.00	0.00 0.00	0.00 0.00	0.00
Burns Fry & Timmins	473,340.00 395,452.00 774,000.00	602.00	0.00	0.00	0.00
Cable/Howse & Ragen Cantor Fitzgerald	774,000.00 45,951,545.00	0.00	0.00	0.00	0.00
Capital Inst. Services	5,712,740.67	0.00 69,905.95 21,536.50	0.00 0.00 2,177,789.06 17,285,171.88	0.00 0.00	0.00 0.00
Carroll McEntee & Mcg.	0.00	0.00	17,285,171.88	0.00	0.00
Chase Manhattan Bank Chemical Bank N. Y.	0.00 0.00	0.00 0.00	0.00 28,516,453.13		330,578,466.84 25,000,350.48
Chevron Oil Fin. Co.	0.00	0.00 1,650.00	0.00	0.00	70,891,000.00
Chicago Corp. CIT Financial Corp.	589,580.29 0.00	1,650.00	0.00 0.00	0.00 0.00	0.00 242,959,138.11
Citibank	0.00	0.00	36,406,500.00	0.00	236,935,045.63
Continental Bank (CHI) Cowen & Co.	34,296.00 34,152,269.39 20,246,261.59 3,898,635.99	0.00 64,958.00 41,876.00	0.00	0.00 0.00	0.00 0.00
Cyrus J. Lawrence	20,246,261.59	41,876.00	0.00	0.00	0.00
Dain Kalman & Quail Daiwa Sec. America	3,898,635.99	10,619.50	0.00	0.00	0.00
Dean Witter Reynolds	3,410,726.40 82,601,234.57	3,871.00 204,300.00	6,433,515.63 58,297,858.14		0.00 0.00
Delafield Har. Tabell	7,674,443.33	14,770.00	0.00	0.00	0.00
Dillon Read Discount Corp. (NY)	7,604,631.72 0.00	17,033.00 0.00	0.00 41,299,218.75	0.00 0.00	0.00 0.00
		0.00 784.00	0.00	0.00	0.00
Donaldson Lufkin Drexel Burnham Lambert	870,210.60 62,594,594.56 156,038,969.05	90,116.00 305,299.00	40,911,261.28 83,183,912.75	0.00 30,000.00	0.00 0.00
E. F. Hutton & Co.	28,371,055.03 12,531,679.38	305,299.00 60,517.50	120,030,333.90	0.00	0.00
Eberstadt (F) & Co. Edwards - Bond Service	12,531,679.38	23,189.00 0.00	0.00 8,322,972.50	0.00 0.00	0.00 0.00
Edwards A. G. & Sons	0.00	0.00	9,426,370.00	12,500.00	0.00
Ernst & Co. First Boston Corp.	6,545,403.55 149,835,632.54	5,607.00 246,593.59	0.00 593,596,640.17	0.00 93,000.00	0.00 6,468,641,348.08
First Interstate Bk Cal	0.00	0.00	5,000,000.00	0.00	0.00
First Manhattan Co.	17,264,552.44	35,576.00	0.00	0.00 0.00	0.00 0.00
First National Bank Boston First National Bank Chi.	0.00	0.00	522,062.50 5,000,000.00	0.00	97,542,745.27
First National Bank Mpls	0.00	0.00	25,113,221.89	0.00	807,799,099.30 224,623,484.44
First National Bank SP First Southwest Co.	0.00 1,157,746.86	0.00 3,965.00	0.00 0.00	0.00 0.00	0.00
Ford Motor Credit Co.	0.00	0.00	0.00	0.00	328,883,000.00
Fred Alger & Company Furman Selz Mager	424,226,847.76 3,256,077.58	1,268,086.52 2,760.00	0.00 0.00	0.00 0.00	0.00 0.00
Gartner Securities Corp.	300,780.00	180.00	0.00	0.00	0.00
General Elec. Fin. Serv. General Electric Credit	0.00	0.00 0.00	0.00	0.00 0.00	229,499,000.00 372,005,000.00
General Motors Acceptance	0.00	0.00	0.00	0.00	677,053,000.00
Goldman Sachs & Co.	250,870,940.18	357,978.34 0.00	687,681,347.44	27,500.00 0.00	9,090,732,452.67
Gordon Haskett & Co. Greenwich Capital Markets	99,549.00 0.00	0.00	20,803,152.81	0.00	0.00
Gruntal & Company	1,010,781.00	2,286.00	0.00	0.00	0.00 6,257,002.36
Harris Trust & Savings Heller Financial Inc.	0.00 0.00	0.00 0.00	7,000,000.00 0.00	0.00 0.00	685,881,000.00
Herzog Heine Gedvid	5,646,886.75	0.00	0.00	0.00	0.00
Household Finance Howard Weil Labouisse Friedrichs	0.00 141,470.00	0.00 1,645.00	0.00 0.00	0.00 0.00	34,274,000.00 0.00
Instinet	92,897,510.82	83,423.30	0.00	0.00	0.00
Interstate Securities Janney Montgomery Scott	8,661,845.49 245,622.00	10,649.10 1,072.00	0.00 0.00	0.00 0.00	0.00 0.00
Jefferies & Co.	278,313,896.45	420,585.25	0.00	0.00	0.00
Johnson Johnson Lane Space & Smith	10,013,409.83 15,188,554.00	19,669.00 30,904.00	0.00 0.00	0.00 0.00	0.00 0.00
Jones Associates	87,730,606.59	141,613.82	0.00	0.00	0.00
Keefe Bruyette & Wood	15,441,132.89	32,557.00 68,530.00	0.00 271,871,477.22	0.00 294,455.00	0.00 13,738,981,305.98
Kidder Peabody	57,672,693.92	00,000	61280178411077	2246422000	,,,,,

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#### MINNESOTA STATE BOARD OF INVESTMENT COMMISSIONS & TRADING VOLUME BY BROKER FISCAL YEAR 1987

BROKER	EQUITY DOLLAR VOLUME	EQUITY COMMISSIONS	BOND DOLLAR VOLUME	BOND COMMISSIONS	SHORT TERM DOLLAR VOLUME
Kleinwort Benson Govt. Sec.	0.00	0.00	41,837,054.69	0.00	2,283,478.41
L. F. Rothschild	14,369,223.22	21,248.00	36,070,796.20	69,822.50	0.00
Lanston Co.	0.00	0.00	44,899,550.78	0.00	0.00
Lazard Freres & Co.	288,995.00	420.00	0.00	0.00	0.00
Legg Mason	5,060,827.20 0.00	8,728.00	0.00	0.00 20,000.00	0.00
Lehman Govt. Securities Lewco Securities Inc.	32,326,160.59	55,102.50	107,753,917.51	0.00	0.00
Lieber & Company	34,310,497.06	80,117,75	0.00	0.00	0.00
Lynch Jones & Ryan	10,549,030.97	22,376.50	0.00	0.00	0.00
Mabon Nugent & Co.	3,696,967.58	5,644.00	0.00	0.00	0.00
Manufacturers Hanover Trust	0.00	0.00	846,000.00	0.00	151,153,412.47
Marquette National Bank McDonald & Company	0.00 11,417,729.30	0.00 35,388.00	20,945,000.00	0.00	70,747,657.77
McKinney Square Allsopp	1,367,650.00	3,400.00	0.00	0.00	0.00
McLeod Young Weir	1,806,633.55	835.00	13,772,290.00	0.00	0.00
Mellon Bank	0.00	0.00	0.00	0.00	40,126,843.34
Merrill Lynch - IDC	234,840,409.55	310,102.72	487,899,082.43	0.00	0.00
Merrill Lynch PF&S	0.00	0.00 218,459.65	0.00 158,495,319.10	0.00 63,750.00	45,968,000.00 5,654,701,953.60
Merrill Lynch PF&S (R) Mesirow & Co.	116,911,227.62 5,222,071.65	14,901.20	0.00	0.00	0.00
Montgomery Securities	33,190,964.85	56,170.65	2,168,512.50	0.00	0.00
Moore Schley & Cameron	8,680,381.06	10,790.00	0.00	0.00	0.00
Morgan Guaranty	66,955,494.17	86,348.50	490,781,560.15	0.00	0.00
Morgan Stanley & Co.	49,017,893.17	140,653.50	69,836,287.08	92,458.80	0.00
Moseley Hallgarter Estabrook Nesbitt Thomson Sec.	1,084,125.81 1,736,773.76	1,400.00	0.00	0.00	0.00
Neuberger & Berman	7,696,490.77	12,938.00	0.00	0.00	0.00
New York & Foreign Sec.	5,319,774.43	15,062.50	0.00	0.00	0.00
Newhard Cooke & Co.	474,097.50	1,710.00	0.00	0.00	0.00
Nomura Securities Int'l.	14,643,958.67	12,347.00	0.00	0.00	0.00
Norwest Bank Mpls	0.00	0.00	6,941,929.71 0.00	0.00 0.00	253,873,455.14
Oppenheimer & Co. Paine Webber J & C	46,886,621.01 158,959,141.14	87,259.55 210,764.50	43,282,249.69	15,000.00	0.00
Penney (J.C.) Finance	0.00	0.00		0.00	30,878,000.00
Piper Jaffray & Hopwood	6,493,564.40	5,926.00	0.00	0.00	0.00
Pittsburg Natl. Bank	0.00	0.00	0.00	0.00	6,811,336.39
Prescott Ball & Turben	3,879,395.67	7,281.00	0.00	0.00	0.00
Printon & Kane Prudential	0.00 15,000,254.73	0.00 23,959.00	2,723,625.00 4,474,760.00	0.00	0.00
Prudential Bache Sec.	6,009,077.41	16,122.00	187,493,953.13	0.00	15,308,106,883.33
R. C. Stamm	1,148,616.00	2,016.00	0.00	0.00	0.00
Re-Investment Plan	0.00	0.00	587.12	0.00	0.00
Robert Fleming	117,500.00	0.00	0.00	0.00	0.00
Robertson Colman & Stephens	1,339,125.87	700.00	0.00	0.00	0.00
Robinson-Humphrey Co. Roulston & Company	7,476,359.67	4,766.00 474.00	0.00	0.00	0.00
Salomon Bros.	99,040,381.60	182,072.59	583,598,213.35	244,000.00	10,238,569,843.33
Sanford C. Bernstein	13,831,918.89	45,091.50	0.00	0.00	0.00
Schwab (Charles) & Co.	372,450.00	1,200.00	2,873,075.00	0.00	0.00
Sears Roebuck Acceptance	0.00	0.00	0.00	0.00	204,740,000.00
Securities Settlement Corp.	493,522.97	1,120.00	0.00	0.00	0.00
SEI Funds Evaluation Shearson Argus Research	16,635,034.92 71,180,863.44	39,169.00 90,485.00	64,103,165.60	0.00	0.00
Shearson Lehman (Bondst)	0.00	0.00	24,874,120.00	45,000.00	0.00
Shearson Lehman Amer Exp	0.00	0.00	29,736,159.06	0.00	0.00
Shearson/American Express	29,044,770.61	58,238.50	0.00	0.00	0.00
Smith Barney & Co.	56,186,446.21	122,020.50	17,902,095.50	0.00	0.00
State Board of Investment State Street Bank & Trust	1,273,407.77 948,531,006.82	0.00	414,312,360.66 123,365,115.23	0.00 0.00	1,606,592,378.05
Stifel Nicolaus & Company	205,046.00	1,546.00	0.00	0.00	0.00
Sutro & Company, Inc.	4,767,814.90	8,257.00	657,800.00	0.00	0.00
Thomson & McKinnon	8,704,286.72	19,982.00	0.00	0.00	0.00
Tucker Anthony & R. L. Day	8,276,588.41	12,966.00	0.00	0.00	0.00
Union Bank of L.A.	0.00	0.00	1,000,000.00 97,909,229.08	0.00 0.00	6,898,761.11 8,449,306.99
W. E. Pollock & Co. Wagner Stott & Co.	72,877,878.43	112,917.50	0.00	0.00	0.00
Wall Street Clearing	1,145,373.51	1,689.00	0.00	0.00	0.00
Walsh Greenwood	1,365,850.49	2,956.25	0.00	0.00	0.00
Warburg-Paribus Inc.	121,430.00	180.00	0.00	0.00	0.00
Weeden & Company	90,146,992.17	137,013.00	0.00	0.00	0.00
Weiss	3,214,980.00	7,100.00	0.00	0.00	0.00
Wellington & Co. Wertheim Schroder & Co.	104,113,748.20 6,860,545.40	283,913.75 20,255.00	0.00	0.00	0.00
Westinghouse Credit	0.00	0.00	0.00	0.00	197,113,000.00
William Blair & Co.	2,592,888.22	3,968.00	3,167,875.00	0.00	0.00
Wilshire Associates	130,088,954.75	282,480.80	0.00	0.00	0.00
Wood Gundy & Company	1,350,594.55	1,463.00	0.00	0.00	0.00
All Brokers Combined	5,781,795,900.51	7,757,773.19	5,956,198,268.03	1,019,986.30	86,982,999,442.47

## 1987 ANNUAL REPORT PART II

# MINNESOTA STATE BOARD OF INVESTMENT

**GOVERNOR RUDY PERPICH** 

STATE AUDITOR ARNE H. CARLSON

STATE TREASURER MICHAEL A. MCGRATH

SECRETARY OF STATE JOAN ANDERSON GROWE

ATTORNEY GENERAL HUBERT H. HUMPHREY III

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### STATE OF MINNESOTA

### OFFICE OF THE LEGISLATIVE AUDITOR

VETERANS SERVICE BUILDING, ST. PAUL, MN 55155 • 612/296-4708

JAMES R. NOBLES, LEGISLATIVE AUDITOR

The State Board of Investment Howard J. Bicker, Executive Director

We have examined the financial statements for the Supplemental Retirement Fund, the Post Retirement Investment Fund, and the Variable Annuity Fund, which constitute the Investment Trust Funds of the State of Minnesota as of and for the year ended June 30, 1987, as shown on pages 2 to 10. Our examination was made in accordance with generally accepted auditing standards and included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The financial statements present only the Investment Trust Funds of the State of Minnesota and are not intended to present fairly the financial position and results of operations of the State Board of Investment or the State of Minnesota in conformity with generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly the net assets and participation of the Investment Trust Funds of the State of Minnesota at June 30, 1987, and the results of their operations and changes in their net assets for the year then ended, in conformity with generally accepted accounting principles.

Our examination was made for the purpose of forming an opinion on the financial statements of the Investment Trust Funds of the State of Minnesota. The supporting schedules shown on pages 11 to 111 are presented for purposes of additional analysis and are not a required part of the aforementioned financial statements. Such information has been subjected to the auditing procedures applied in the examination of the aforementioned financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

James

November 17, 1987

Asmussen, CPA

Deputy Legislative Auditor

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### STATE BOARD OF INVESTMENT INVESTMENT TRUST FUNDS STATEMENT OF ASSETS AND LIABILITIES JUNE 30, 1987

ASSETS:	_	SUPPLEMENTAL (5) RETIREMENT FUND TOTAL	_	POST RETIREMENT(( INVESTMENT FUND	5) —	VARIABLE (7) ANNUITY FUND
INVESTMENTS (at market value) (3)						
Common Stock	\$	221,566,425	\$	670,664,380	\$	170,455,353
Alternative Equities		-0-		-0-		-0-
Fixed Income Securities		74,355,691		2,898,641,761		-0-
Short Term Securities		107,421,931		356,600,888		145,912
TOTAL INVESTMENTS (4)	\$	403,344,047	\$	3,925,907,029	\$	170,601,265
Cash		1		48,686		-0-
Security Sales Receivable		-0-		2,368,627		-0-
Accounts Receivable-Fee Refunds		689		-0-		-0-
Accounts Receivable-Mortality		-0-		9,851,407		-0-
Accounts Receivable-Participants		-0-		11,648,682		245,831
Accrued Interest		1,467,649		66,620,207		-0-
Accrued Dividends		-0-		1,996,542		-0-
Accrued Short Term Gain		595,071		1,357,890		2,107
TOTAL ASSETS	\$	405,407,457	\$	4,019,799,070	\$	170,849,203
LIABILITIES:  Management Fees Payable Security Purchases Payable Accounts Payable-Participants Options Premiums Received		34,285 4,581,250 -0- -0-		236,194 895,210 -0- -0-		39,822 -0- -0- -0-
TOTAL LIABILITIES	\$	4,615,535	\$	1,131,404	\$	39,822
NET ASSETS AT JUNE 30, 1986	\$	400,791,922	\$	4,018,667,666	\$	170,809,381

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### STATE BOARD OF INVESTMENT INVESTMENT TRUST FUNDS STATEMENT OF CHANGES IN NET ASSETS YEAR ENDED JUNE 30, 1987

		SUPPLEMENTAL RETIREMENT FUND TOTAL	PC	OST RETIREMENT INVESTMENT FUND		VARIABLE ANNUITY FUND
FROM INVESTMENT ACTIVITY:	_	40 40 4 400				
Net Investment Income	\$	40,614,650	\$	296,084,886	\$	24,849,384
Realized Gains (Losses)		9,563,415		106,362,157		2,196,714
Unrealized Gains (Losses)		(4,822,470)		(210,864,547)		(1,750,264)
TOTAL INCOME	\$	45,355,595	\$	191,582,496	\$	25,295,834
Less Distribution to						
Participant Accounts		(45,835,257)		(152,917,754)		(36,330,581)
Undistributed Dedicated Income		-0-		(246,892,590)		(2,196,714)
NET CHANGE IN UNDISTRIBUTED INCOME	\$	(479,662)	\$	(208,227,848)	\$	(13,231,461)
FROM PARTICIPANT TRANSACTION:						
Additions to Participant Accounts						
Participant Contributions		27,606,009		439,888,106		-0-
Income Distribution		45,835,257		152,917,754		36,330,581
Income to be Distributed		-0-		246,892,590		2,196,714
TOTAL ADDITIONS	\$	73,441,266	\$	839,698,450	\$	38,527,295
Deductions from						
Participant Accounts						
Withdrawals		18,232,759		245,653,557		1,633,149
TOTAL DEDUCTIONS	\$	18,232,759	\$	245,653,557	\$	1,633,149
NET CHANGE IN PARTICIPATION	Ŝ	55,208,507	s	594,044,893	Ś	36,894,146
TOTAL CHANGE IN ASSETS		54,728,845		385,817,045		23,662,685
NET ASSETS:						
Beginning of Period		346,063,077		3,632,850,621		147,146,696
End of Period	\$	400,791,922		4,018,667,666	\$	170,809,381

### STATE BOARD OF INVESTMENT INVESTMENT TRUST FUNDS STATEMENT OF OPERATIONS YEAR ENDED JUNE 30, 1987

	_	SUPPLEMENTAL RETIREMENT FUND TOTAL		POST RETIREMENT INVESTMENT FUND		VARIABLE ANNUITY FUND
INVESTMENT INCOME:						
Interest	\$	8,124,706	\$	258,447,563	\$	-0-
Dividends		26,696,726		19,191,631		24,857,494
Short Term Gains		5,886,369		19,140,567		64,529
INCOME BEFORE EXPENSES	\$	40,707,801	\$	296,779,761	\$	24,922,023
Management Fees		93,151		694,875	-	72,639
NET INCOME	\$	40,614,650	\$		\$	24,849,384
REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS Realized:		,				
Proceeds from Sales	\$	131,706,580	\$	1,103,112,221	\$	30,192,996
Cost of Securities Sold	•	122,143,165	•	996,750,064	•	27,996,282
NET REALIZED GAIN (LOSS) Unrealized	\$	9,563,415	\$	106,362,157	\$	2,196,714
Beginning of Period		24,157,440		482,673,623		14,256,810
End of Period		19,334,970		271,809,076		12,506,546
INCREASE (DECREASE) IN		1000100				
UNREALIZED APPRECIATION NET REALIZED AND UNREALIZED	\$	(4,822,470)	\$	(210,864,547)	\$	(1,750,264)
GAIN (LOSS) ON INVESTMENT	<u>\$</u>	4,740,945	\$	(104,502,390)	\$	446,450
·	-					

### NOTES TO THE FINANCIAL STATEMENTS JUNE 30, 1987

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Financial Reporting Entity and Basis of Presentation: This report includes financial statements for the Investment Trust Funds of the State of Minnesota, which are administered by the State Board of Investment under authority of Minnesota Statutes Chapter 11A. The Investment Trust Funds include the Supplemental Retirement Fund, the Post Retirement Investment Fund, and the Variable Annuity Fund.

The financial statements presented for these funds are based on the preferred accounting practices described in the American Institute of Certified Public Accountants audit guide, "Audits of Investment Companies". These practices, and the significant accounting policies which follow, conform with generally accepted accounting principles.

<u>Authorized Investments</u>: Minnesota Statutes, Section 11A.24 broadly restricts investments to obligations and stocks of the U.S. and Canadian governments, their agencies and their registered corporations; short term obligations of specified high quality; restricted participation as a limited partner in venture capital, real estate or resource equity investments; and restricted participation in registered mutual funds.

Risk Categories: At June 30, 1987, all investments of the Investment Trust Funds and pooled investment accounts are insured or registered, or are held by the state or its agent in the state's name, except for approximately \$200,000,000 in repurchase agreements for the Post Retirement Investment Fund, where the securities are held by the broker or dealer rather than the state. The state's investment risk for these repurchase agreements is reduced by a State Board of Investment policy which limits transactions to those with primary government securities dealers whose net excess capital is greater than \$200,000,000.

Security Valuation: All securities are valued at market except for U. S. Government short-term securities and commercial paper, which are valued at market less accrued interest. Accrued short-term interest is recognized as income as part of "Short-Term Gain". For long-term fixed income securities the State Board uses the Merrill Lynch valuation system. This pricing service is capable of providing prices for both actively traded and privately placed bonds. For equity securities the State Board uses a valuation service provided by Financial Control Systems, Inc.

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Recognition of Security Transactions: Security transactions are accounted for on the date the securities are purchased or sold.

<u>Income Recognition</u>: Dividend income is recorded on the ex-dividend date. Interest and dividend income are accrued monthly. Short-term interest is accrued monthly and is presented as "Accrued Short-Term Gain".

<u>Loaning Securities</u>: Certain U.S. Government and Government Agency securities are loaned out by the State Board to banks and brokers for additional income. Collateral in the amount of 100% of the market value of the security loaned is required.

### 2. PORTFOLIO LISTING:

A listing of all securities held by these funds can be found starting on page 20 of this report. Fixed income and equity securities are presented at market value. Securities held as cash equivalents are not listed.

#### 3. COST OF INVESTMENTS

At June 30, 1987, the cost of investments for the Investment Trust Funds was:

Supplemental Retirement Fund \$ 384,009,077
Post Retirement Investment Fund \$3,654,097,953
Variable Annuity Fund \$ 158,094,719

### 4. LOANED SECURITIES

The market value of loaned securities outstanding at June 30, 1987 was:

Supplemental Retirement Fund \$ 3,415,195 Post Retirement Investment Fund \$ 485,965,882

#### 5. SUPPLEMENTAL RETIREMENT FUND

The Supplemental Retirement Fund serves as an investment vehicle for the various state and locally administered pension plans. During Fiscal Year 1987 the fund included seven separate accounts with different investment objectives. The Index Account, Bond Market Account and Guaranteed Investment Contract(G.I.C.) Accounts were new investment vehicles during Fiscal Year 1987. Financial information on the individual accounts is shown on pages 12 to 15 of this report. Participation in the Supplemental Retirement Fund accounts is determined in accordance with various statutory requirements.

#### 6. POST RETIREMENT INVESTMENT FUND

The Post Retirement Fund serves as an investment vehicle for the Defined Benefit Pension Funds of the State of Minnesota. The fund invests amounts certified by the various pension funds as reserves required for the payment of retirement benefits.

Participation in the Post Retirement Investment Fund is equal to the actuarially determined required reserves for retirement benefits as of June 30, 1987. It includes a 5% assumed income distribution, in accordance with Minnesota Statutes Section 11A.18, and any mortality gains or losses as determined by an independent actuary hired by the State Legislature.

Pursuant to Minnesota Statutes Section 11A.18, Subdivision 9, a portion of Fiscal Year 1987 investment income of the Post Retirement Investment Fund is available for distribution as a benefit increase to pension fund participants in January 1988. This amount is increased by 2.5% from Fiscal Year 1988 income. The benefit increase is stated as a percentage of total required reserves. In accordance with statutory provisions, the amount available for the benefit increase is certified to each participating pension fund for distribution to eligible individuals. Annuitants and other individuals receiving benefits at June 30, 1986 are eligible to receive the January 1, 1988 benefit increase, which will be 8.054%. Past increases paid to retirees on January 1st have been:

1981	3.209%
1982	7.436%
1983	6.853%
1984	7.449%
1985	6.905%
1986	7.884%
1987	9.792%
1988	8.054%

### 7. VARIABLE ANNUITY FUND:

Participation in the Variable Annuity Fund is restricted to members of the Teachers Retirement Fund.

The Admitted Value Increment for the Variable Annuity Fund totalled \$20,804,887 at June 30, 1987. This valuation is required by Minnesota Statutes Section 11A.19, Subdivision 5, and is the amount by which the recognized value of investments is above or below their book value. The admitted value is based on an average ratio of book value to market value of the securities calculated over a two year period. This calculation is used to determine the rate of return and the increase or decrease which will be credited to the individual member's account balances at the end of each fiscal year.

Laws of Minnesota 1978, Chapter 781, stated in part "Effective July 1, 1978 no future employee and employer contribution shall be credited to any account in the variable annuity division unless the member elects continued participation..." Very few members of the Teachers' Retirement Fund elected to continue in the variable annuity division. Previous contributions for all former and current participants in the variable annuity fund will remain in that fund until the participant retires or withdraws in accordance with the Teachers' Retirement Act. (Minnesota Statutes Chapter 354)

### VARIABLE ANNUITY FUND PARTICIPATION AT JUNE 30,1987

Net Assets	\$ 170,809,381
Admitted Value Increment	20,804,887
	\$ 191,614,268
Less:Unrealized Market	
Appreciation (Depreciation)	12,506,546
Undistributed Earnings	7,478,009
Total Participation	\$ 171,629,713

### 8. POOLED INVESTMENT ACCOUNTS

The State Board of Investment manages seven pooled investment accounts for the Investment Trust Funds and the Defined Benefit Pension Funds of the State of Minnesota. The assets of the pooled accounts are held by our master custodian, State Street Bank of Boston. Financial information on these pooled accounts is shown on pages 16 to 19 of this report.

#### 9. SOUTH AFRICA POLICY

At its October 2, 1985 meeting the Minnesota State Board of Investment adopted a resolution relating to companies doing business in South Africa. The resolution calls for the divestment of companies not meeting predetermined guidelines in a four phased approach. The first three phases relate to individual companies signing and complying with the Sullivan Principles. The fourth phase, to be completed by August, 1989, calls for the divestment of any company with operations in South Africa.

The resolution also calls for the SBI to receive financial and legal advise at the completion of each phase to insure it is not violating its fiduciary responsibility. To date, no securities have been liquidated as a result of the resolution.

It can't be determined at this time what effect, if any, this resolution will have on the SBI's future investment flexibility.

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## STATE BOARD OF INVESTMENT MINNESOTA INVESTMENT TRUST FUNDS SCHEDULE OF PARTICIPATION JUNE 30, 1987

	SUPPLEMENTAL RETIREMENT FUND TOTAL	POST RETIREMENT FUND	VARIABLE ANNUITY FUND
Teacher's Retirement Fund	\$ -0-	\$ 1,502,816,000	\$ 171,629,713
Public Employees Retirement Fund	-0-	1,211,028,000	-0-
State Employees Retirement Fund	-0-	586,695,000	-0-
Public Employees Police & Fire	-0-	116,011,000	-0-
Highway Patrolmen's Retirement	-0-	60,771,000	-0-
Legislators & Survivors Retire.	-0-	8,318,000	-0-
Judges Retirement Fund	-0-	14,327,000	-0-
Variable Annuity Fund	-0-	-0-	-0-
Income Share Account	214,180,959	-0-	-0-
Growth Share Account	90,459,043	-0-	-0-
Money Market Account	76,976,870	-0-	-0-
Bond Account	11,498,731	-0-	-0-
Index Account	1,906,389	-0-	-0-
Bond Market Account	798,177	-0-	-0-
G.I.C. Account	 4,472,562	 _0_	 _0-
TOTAL PARTICIPATION Adjustments	\$ 400,292,731	\$ 3,499,966,000	\$ 171,629,713
Admitted Value Increment Unrealized Appreciation	-0-	-0-	(20,804,887)
(Depreciation) of Investments	455,041	271,809,076	12,506,546
Undistributed Earnings	44,150	246,892,590	7,478,009
NET ASSETS	\$ 400,791,922	\$ 4,018,667,666	\$ 170,809,381

### SUPPLEMENTAL FINANCIAL STATEMENTS

## STATE BOARD OF INVESTMENT MINNESOTA SUPPLEMENTAL RETIREMENT FUND COMBINING STATEMENT OF ASSETS AND LIABILITIES JUNE 30, 1987

ASSETS:	INCOME SHARE ACCOUNT	GROWTH SHARE ACCOUNT	MONEY MARKET ACCOUNT	BOND ACCOUNT	I NDEX ACCOUNT	BOND MARKET ACCOUNT	G.I.C. ACCOUNT	SUPPLEMENTAL RETIREMENT FUND TOTAL
INVESTMENTS (at market value)(1) Common Stock Fixed Income Securities Short Term Securities TOTAL INVESTMENTS(2)	\$ 129,204,233 57,956,149 30,320,141 \$ 217,480,523	\$ 90,455,683 -0- 24,727 \$ 90,480,410	-0- <u>76,503,700</u>	\$ -0- 11,155,470 <u>573,356</u> \$ 11,728,826	\$ 1,906,509 -0- -0- \$ 1,906,509	\$ -0- 798,566 -0- \$ 798,566	\$ -0- 4,445,506 7 \$ 4,445,513	\$ 221,566,425 74,355,691 107,421,931 \$ 403,344,047
Cash Security Sales Receivable Accounts Receivable-Fee Refunds Accounts Receivable-Participants Accrued Interest Accrued Dividends Accrued Short Term Gain TOTAL ASSETS	-0- -0- -0- -0- 1,122,132 -0- 167,857 \$ 218,770,512	-0- -0- -0- -0- -0- -0- 577 \$ 90,480,987	-0- -0- -0- -0- -0- -0- 423,554 \$ 76,927,254	1 -0- 689 -0- 318,461 -0- 3,083 \$ 12,051,060	-0- -0- -0- -0- -0- -0- \$ 1,906,509	-0- -0- -0- -0- -0- -0- -0- \$ 798,566	-0- -0- -0- 27,056 -0- -0- \$ 4,472,569	1 -0- 689 -0- 1,467,649 -0- 595,071 \$ 405,407,457
LIABILITIES:  Management Fees Payable Security Purchases Payable Accounts Payable to Teachers Options Premiums Received TOTAL LIABILITIES	8,303 4,581,250 -0- -0- \$ 4,589,553	21,944 -0- -0- -0- \$ 21,944	3,370 -0- -0- -0- \$ 3,370	-0- -0- -0- -0- -0- \$ -0-	120 -0- -0- -0- \$ 120	389 -0- -0- -0- \$ 389	159 -0- -0- -0- \$ 159	34,285 4,581,250 -0- -0- \$ 4,615,535
NET ASSETS AT JUNE 30, 1987	<u>\$ 214,180,959</u>	\$ 90,459,043	<u>\$ 76,923,884</u>	<u>\$ 12,051,060</u>	<u>\$ 1,906,389</u>	\$ 798,177	<u>\$ 4,472,410</u>	\$ 400,791,922
(1)The cost of investments at June 30, Common Stock Fixed Income Securities Short Term Securities Total Investments at Cost	was: \$ 118,525,054 55,965,279 30,320,141 \$ 204,810,474	\$ 84,404,946 -0- 24,727 \$ 84,429,673	\$ -0- -0- 76,503,700 \$ 76,503,700	\$ -0- 10,700,429 573,356 \$ 11,273,785	\$ 1,707,667 -0- -0- <u>\$ 1,707,667</u>	\$ -0- 838,265 -0- \$ 838,265	\$ -0- 4,445,506 7 <u>\$ 4,445,513</u>	\$ 204,637,667 71,949,479 107,421,931 \$ 384,009,077
(2)The market value of loaned security outstanding at June 30, was:	s 3,307,500	\$ -0-	\$ -0-	\$ 107,695	\$ -0-	\$ -0-	\$ -0-	\$ 3,415,195

### <u>...</u>

### STATE BOARD OF INVESTMENT MINNESOTA SUPPLEMENTAL RETIREMENT FUND COMBINING STATEMENT OF CHANGES IN NET ASSETS YEAR ENDED JUNE 30, 1987

FROM INVESTMENT ACTIVITY:	INCOME SHARE ACCOUNT	GROWTH SHARE ACCOUNT	MONEY MARKET ACCOUNT	BOND ACCOUNT	I NDEX ACCOUNT	BOND MARKET ACCOUNT	G.I.C. ACCOUNT	SUPPLEMENTAL RETIREMENT FUND TOTAL
Net Investment Income Realized Gains (Losses) Unrealized Gains (Losses)	\$ 20,907,596 7,815,228 (2,844,663)	1,596,078	-0-	\$ 1,138,318 145,821 (486,238)	-0-	\$ 70,237 6,288 (39,699)	\$ 204,650 -0- -0-	\$ 40,614,650 9,563,415 (4,822,470)
TOTAL INCOME	\$ 25,878,161	\$ 13,557,278	\$ 4,576,438		\$ 304,341		\$ 204,650	\$ 45,355,595
Less Distribution to Participant Accounts Undistributed Dedicated Income	(25,878,161) -0-	(13,557,278) -0-	(4,629,644) -0-	(1,224,357) -0-	(304,341) -0-	(36,826) -0-	(204,650) -0-	(45,835,257) -0-
NET CHANGE IN UNDISTRIBUTED INCOME	\$ -0-	\$ -0-	\$ (53,206)	\$ (426,456)	\$ -0-	\$ -0-	\$ -0-	\$ (479,662)
FROM PARTICIPANT TRANSACTION: Additions to Participant Accounts								
Participant Contributions Income Distribution Income to be Distributed	10,629,086 25,878,161 -0-	1,907,206 13,557,278 -0-	5,095,891 4,629,644 -0-	3,119,139 1,224,357 -0-	1,602,048 304,341 -0-	952,518 36,826 -0-	4,300,121 204,650 -0-	27,606,009 45,835,257 -0-
TOTAL ADDITIONS Deductions from	\$ 36,507,247	\$ 15,464,484	\$ 9,725,535	\$ 4,343,496	\$ 1,906,389	\$ 989,344	\$ 4,504,771	\$ 73,441,266
Participant Accounts Withdrawals TOTAL DEDUCTIONS	1,593,798 \$ 1,593,798	3,671,584 \$ 3,671,584	9,639,889 \$ 9,639,889	3,103,960 \$ 3,103,960	-0- \$ -0-	191,167 \$ 191,167	32,361 \$ 32,361	18,232,759 \$ 18,232,759
NET CHANGE IN PARTICIPATION TOTAL CHANGE IN ASSETS	\$ 34,913,449 \$ 34,913,449	\$ 11,792,900 \$ 11,792,900	\$ 85,646 \$ 32,440	\$ 1,239,536 \$ 813,080	\$ 1,906,389 \$ 1,906,389	\$ 798,177 \$ 798,177	\$ 4,472,410 \$ 4,472,410	\$ 55,208,507 \$ 54,728,845
NET ASSETS: Beginning of Period	179,267,510	78,666,143	76,891,444	11,237,980	-0-	-0-	-0-	346,063,077
End of Period	\$ 214,180,959	\$ 90,459,043	\$ 76,923,884	\$ 12,051,060	\$ 1,906,389	\$ 798,177	\$ 4,472,410	\$ 400,791,922

## STATE BOARD OF INVESTMENT MINNESOTA SUPPLEMENTAL RETIREMENT FUND COMBINING STATEMENT OF OPERATIONS YEAR ENDED JUNE 30, 1987

	INCOME SHARE <u>ACCOUNT</u>	GROWTH SHARE ACCOUNT	MONEY MARKET ACCOUNT	BOND ACCOUNT	I NDEX ACCOUNT	BOND MARKET ACCOUNT	G.I.C. ACCOUNT	SUPPLEMENTAL RETIREMENT FUND TOTAL
INVESTMENT INCOME:								
Interest	\$ 6,752,619				\$ -0-	\$ 70,695	\$ 201,905	\$ 8,124,706
Dividends	12,972,914	13,618,128	-0-	-0-	105,684	-0-	-0-	26,696,726
Short Term Gains	1 219,651	35,027	4,603,891	24,649	-0-	-0-	3,151	5,886,369
INCOME BEFORE EXPENSES	\$ 20,945,184	\$ 13,653,155	\$ 4,589,447	\$ 1,138,580	\$ 105,684	\$ 70,695	\$ 205,056	\$ 40,707,801
Management Fees	37,588	41,243	13,009	262	185	458	406	93,151
NET INCOME	<u>\$ 20,907,596</u>	<u>\$ 13,611,912</u>	<b>\$</b> 4,576,438	<b>\$ 1,138,318</b>	<u>\$ 105,499</u>	<b>\$</b> 70,237	<u>\$ 204,650</u>	<u>\$ 40,614,650</u>
REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS Realized:								
Proceeds from Sales	\$ 109,517,592			\$ 1,451,500	\$ -0-	\$ 191,167	\$ 32,361	\$ 131,706,580
Cost of Securities Sold	101,702,364	18,917,882	-0-	1,305,679	-0-	184,879	32,361	122,143,165
NET REALIZED GAIN (LOSS) Unrealized	\$ 7,815,228	\$ 1,596,078	\$ -0-	\$ 145,821	\$ -0-	\$ 6,288	\$ -0-	\$ 9,563,415
Beginning of Period	15,514,712	7,701,449	-0-	941,279	-0-	-0-	-0-	24,157,440
End of period	12,670,049	6,050,737	-0-	455,041	198,842	(39,699)	-0-	19,334,970
INCREASE (DECREASE) IN								
UNREALIZED APPRECIATION NET REALIZED AND UNREALIZED	<u>\$ (2,844,663</u> )	\$ (1,650,712)	\$ -0-	<u>\$ (486,238)</u>	<u>\$ 198,842</u>	<u>\$ (39,699</u> )	\$ -0-	<u>\$ (4,822,470</u> )
GAIN (LOSS) ON INVESTMENT	<b>\$</b> 4,970,565	\$ (54,634)	\$ -0-	<u>\$ (340,417)</u>	<u>\$ 198,842</u>	<u>\$ (33,411</u> )	<u>\$ -0-</u>	\$ 4,740,945

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### STATE BOARD OF INVESTMENT MINNESOTA SUPPLEMENTAL RETIREMENT FUND SCHEDULE OF PARTICIPATION JUNE 30, 1987

	INCOME	GROWTH	MONEY			BOND		SUPPLEMENTAL
	SHARE	SHARE ACCOUNT	MARKET ACCOUNT	BOND ACCOUNT	INDEX ACCOUNT	MARKET	G.I.C.	RETIREMENT
Albert Lea Firemen's Relief	* 3,267,152		\$ -0-	\$ 120,024	-0-	ACCOUNT -0-	ACCOUNT -0-	FUND TOTAL \$ 3,387,176
Austin Fire Relief	430,636	-0-	-0-	-0-	-0-	-0-	-0-	430,636
Austin Police Relief	471,404	-0-	-0-	-0-	-0-	-0-	-0-	471,404
Bloomington Fire Dept. Relief	12,033,685	677,070	-0-	-0-	-0-	-0-	-0-	12,710,755
Bloomington Police Relief	1,031,308	593,282	-0-	-0-	-0-	-0-	-0-	1,624,590
Buhl Police Relief	-0-	-0-	-0-	74,967	-0-	-0-	-0-	74,967
Clear Lake Fire Relief	-0-	72,965	-0-	-0-	-0-	-0-	-0-	72,965
Clearbrook Fire Relief	38,221	63,096	-0-	-0-	-0-	-0-	-0-	101,317
Hennepin County Supplemental Ret.	12,848,209	10,522,973	2,981,813	-0-	-0-	-0-	-0-	26,352,995
Hinckley Fire Relief	5,165	-0-	-0-	-0-	-0-	-0-	-0-	5,165
Osseo Fire Relief	25,200	-0-	-0-	-0-	-0-	-0-	-0-	25,200
St. Paul Fire -General	348,559	54,093	-0-	129,243	-0-	-0-	-0-	531,895
St. Paul Fire-Special	28,558,329	6,563,049	-0-	11,059,954	-0-	-0-	-0-	46,181,332
St. Paul Police Relief	44,894,031	5,493,526	-0-	-0-	-0-	-0-	-0-	50,387,557
MSRS Deferred Compensation	28,055,794	19,203,462	64,870,693	-0-	1,379,093	-0-	4,472,562	117,981,604
MSRS Unclassified Empl. Escrow	25,770,300	9,608,219	9,124,364	-0-	527,296	798,177	-0-	45,828,356
South St. Paul Policemen's Relief	130,513	-0-	-0-	114,543	-0-	-0-	-0-	245,056
Teacher's Supplemental Retirement	55,929,092	37,607,308	-0-	-0-	-0-	-0-	-0-	93,536,400
Winona Fire Dept. Relief	<u>343,361</u>	-0-	<u>-0-</u>	-0-			<u>-0-</u>	<u>343,361</u>
TOTAL PARTICIPATION	\$ 214,180,959	\$ 90,459,043	\$ 76,976,870	\$ 11,498,731	\$ 1,906,389	\$ 798,177	\$ 4,472,562	\$ 400,292,731
Adjustments Unrealized Appreciation								
(Depreciation) of Investments	-0-	-0-	-0-	455,041	-0-	-0-	-0-	455,041
Undistributed Earnings		-0-	(52,986)	97,288	-0-	-0-	(152)	44,150
NET ASSETS	\$ 214,180,959	\$ 90,459,043	<u>\$ 76,923,884</u>	\$ 12,051,060	\$ 1,906,389	<b>\$</b> 798,177	\$ 4,472,410	\$ 400,791,922

### STATE BOARD OF INVESTMENT MINNESOTA POOLED INVESTMENT ACCOUNTS SCHEDULE OF ASSETS AND LIABILITIES JUNE 30, 1987

	ACTIVE EQUITY ACCOUNT	PASSIVE EQUITY ACCOUNT	INTERNAL EQUITY ACCOUNT	REAL ESTATE ACCOUNT	RESOURCE ACCOUNT	VENTURE CAPITAL ACCOUNT	BOND Managers Account
ASSETS:	7,000011	7,000011	- AGGGGKT	AUGUNT	AGGGGKT	AGGGGRT	
INVESTMENTS (at market value)(1)	)						
Common Stock	\$1,144,761,593	\$2,158,085,702	\$ 90,666,962	\$ -0-	\$ -0-	\$ -0-	\$ -0-
Alternative Equities	-0-	-0-	-0-	396,342,647	62,767,384	86,182,508	-0-
Fixed Income Securities	37,137,870	1,628	-0-	-0-	-0-	-0-	1,000,905,947
Short Term Securities	126,232,088	7,686,534	1,987,770	8,192,105	4,809,180	7,185,605	80,398,333
TOTAL INVESTMENTS(2)	\$1,308,131,551	\$2,165,773,864	\$ 92,654,732	\$ 404,534,752	\$ 67,576,564	\$ 93,368,113	\$ 1,081,304,280
Cash With State Treasurer	6,006	-0-	1	1	1	-0-	2
Security Sales Receivable	20,604,247	14,164,363	918,474	-0-	-0-	-0-	4,235,564
Accounts Receivable-Mortality	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Accounts Receivable-Participants	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Accounts Receivable-Managers							
Performance Fee Refunds	1,092,459	-0-	-0-	-0-	-0-	-0-	-0-
Accrued Interest	249,473	34	-0-	-0-	-0-	-0-	15,678,692
Accrued Dividends	2,393,008	5,815,892	277,452	918,029	-0-	-0-	-0-
Accrued Short Term Gain	<u>866,965</u>	36,123	11,704	<u>45,598</u>	26,768	30,183	955,707
TOTAL ASSETS	\$1,333,343,709	\$2,185,790,276	\$ 93,862,363	\$ 405,498,380	\$ 67,603,333	\$ 93,398,296	\$ 1,102,174,245
LIABILITIES:							
Management Fees Payable	1,414,583	66,568	-0-	55,000	-0-	-0-	513,258
Security Purchases Payable	19,358,885	11,806,404	117,796	-0-	-0-	-0-	12,237,060
Accounts Payable to Teachers	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Options Premiums Received	-0-	-0-	-0-	-0-	-0-	-0-	-0-
TOTAL LIABILITIES	\$ 20,773,468	\$ 11,872,972	\$ 117,796	\$ 55,000	\$ -0-	\$ -0-	\$ 12,750,318
NET ASSETS AT JUNE 30, 1987	\$1,312,570,241	\$2,173,917,304	\$ 93,744,567	\$ 405,443,380	\$ 67,603,333	\$ 93,398,296	1,089,423,927
(1)The cost of investments							
at June 30, was:							
Common Stock	\$ 939,791,084	\$1,364,332,866	78,501,342	-0-	\$ -0-	\$ -0-	\$ -0-
Alternative Equities	# 737,171,004 -0-	-0-	-0-	338,136,544	74,250,700	85,822,703	-0-
Fixed Income Securities	36,329,520	699	-0-	-0-	-0-	-0-	1,006,161,808
Short Term Securities	126,232,088	7,686,534	1,987,770	8,192,105	4,809,180	7,185,605	80,398,333
Total Investments at Cost	\$1,102,352,692	\$1,372,020,099	\$ 80,489,112	\$ 346,328,649	\$ 79,059,880	\$ 93,008,308	\$ 1,086,560,141
(2)The market of loaned securities							
outstanding at June 30, was:	\$ 56,198,445	\$ 66,826,320	\$ 5,923,850	\$ -0-	\$ -0-	\$ -0-	\$ 65,244,310

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### STATE BOARD OF INVESTMENT MINNESOTA POOLED ACCOUNTS SCHEDULE OF CHANGES IN NET ASSETS YEAR ENDED JUNE 30, 1987

	ACTIVE EQUITY ACCOUNT	PASSIVE EQUITY ACCOUNT	INTERNAL EQUITY ACCOUNT	REAL ESTATE ACCOUNT	RESOURCE ACCOUNT	VENTURE CAPITAL ACCOUNT	BOND MANAGERS ACCOUNT
FROM INVESTMENT ACTIVITY:							
Net Investment Income	\$ 26,272,756	\$ 61,796,130	\$ 3,716,327	\$ 8,407,081	\$ 5,311,722	\$ 790,922	\$ 93,067,918
Realized Gains (Losses)	166,441,073	117,480,223	14,054,482	<del>-</del> 0-	-0-	707,306	24,677,248
Unrealized Gains (Losses)	9,135,207	206,179,728	<u>(9,374,670</u> )	<u>15,115,411</u>	305,486	437,801	<u>(34,993,278</u> )
TOTAL INCOME	\$ 201,849,036	\$ 385,456,081	\$ 8,396,139	\$ 23,522,492	\$ 5,617,208	\$ 1,936,029	\$ 82,751,888
Less Distribution to						2	
Participant Accounts	(194,051,555)	(169,280,002)	(17,770,809)	(8,506,099)	(5,332,148)	(1,498,228)	(117,768,362)
Undistributed Dedicated Income	1,337,726	(9,996,351)	-0-	99,018	20,426	-0-	23,196
NET CHANGE IN UNDISTRIBUTED INCOME	\$ 9,135,207	\$ 206,179,728	\$ (9,374,670)	\$ 15,115,411	\$ 305,486	\$ 437,801	\$ (34,993,278)
FROM PARTICIPANT TRANSACTION:						•	
Additions to Participant Accounts							
Participant Contributions	63,478,324	69,236,294	-0-	50,000,000	25,000,000	26,000,000	1,028,180
Income Distribution	194,051,555	169,280,002	17,770,809	8,506,099	5,332,148	1.498,228	117,768,362
Income to be Distributed	(1,337,726)	<u>9,996,351</u>	<u>-0-</u>	<u>(99,018)</u>	(20,426)	<u>-0-</u>	(23, 196)
TOTAL ADDITIONS	\$ 256, 192, 153	\$ 248,512,647	\$ 17,770,809	\$ 58,407,081	\$ 30,311,722	\$ 27,498,228	\$ 118,773,346
Deductions from		•					
Participant Accounts							
Withdrawals	15,659,762	274,838,508	116,629,021	0-	-0-	0-	72,805,979
TOTAL DEDUCTIONS	\$ 15,659,762	\$ 274,838,508	\$ 116,629,021	\$ -0-	\$ -0-	\$ -0-	\$ 72,805,979
NET CHANGE IN PARTICIPATION	\$ 240,532,391	\$ (26,325,861)	\$ (98,858,212)	\$ 58,407,081	\$ 30,311,722	\$ 27,498,228	\$ 45,967,367
TOTAL CHANGE IN ASSETS	\$ 249,667,598	\$ 179,853,867	\$(108,232,882)	\$ 73,522,492	\$ 30,617,208	\$ 27,936,029	\$ 10,974,089
NET ASSETS:							
Beginning of Period	1,062,902,643	1,994,063,437	201,977,449	<u>331,920,888</u>	<u>36,986,125</u>	65,462,267	<u>1,078,449,838</u>
End of Period	\$1,312,570,241	\$2,173,917,304	\$ 93,744,567	\$ 405,443,380	\$ 67,603,333	\$ 93,398,296	\$1,089,423,927
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## STATE BOARD OF INVESTMENT MINNESOTA POOLED INVESTMENT ACCOUNTS SCHEDULE OF OPERATIONS YEAR ENDED JUNE 30, 1987

		ACTIVE EQUITY ACCOUNT		PASSIVE EQUITY ACCOUNT		INTERNAL EQUITY ACCOUNT	_	REAL ESTATE ACCOUNT		RESOURCE ACCOUNT		VENTURE CAPITAL ACCOUNT	-	BOND MANAGERS ACCOUNT
	INVESTMENT INCOME:							_						
	Interest	\$ 730,904	\$	177,438	\$	-0-	\$	-0-	\$	-0-	\$	-0-	\$	89,932,262
	Dividends	21,786,405		61,326,922		3,339,558		7,614,442		4,536,023		382,332		-0-
	Short Term Gains	7,736,869		545,770	_	376,769	_	847,639		780,200		408,590		5,215,053
	INCOME BEFORE EXPENSES	\$ 30,254,178	\$	62,050,130	\$	3,716,327	\$	8,462,081	\$	5,316,223	\$	790,922	\$	95,147,315
	Management Fees	3,981,422	_	254,000	_	-0-	_	55,000		4,501		-0-	_	2,079,397
	NET INCOME	<u>\$ 26,272,756</u>	\$	61,796,130	\$	3,716,327	<u>\$</u>	8,407,081	\$	5,311,722	<u>\$</u>	790,922	<u>\$</u>	93,067,918
<u> </u>	REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS Realized:													
$\odot$	Proceeds from Sales	\$ 1,168,956,599	\$	401,460,700	\$	195,348,434	\$	-0-	\$	-0-	\$	16,429,357	\$ '	1,540,891,771
	Cost of Securities Sold	1,002,515,526		283,980,477		181,293,952		-0-		-0-		15,722,051		1,516,214,523
	NET REALIZED GAIN (LOSS)	\$ 166,441,073	\$	117,480,223	\$	14,054,482	\$	-0-	\$	-0-	\$	707,306	\$	24,677,248
	Unrealized	•										-		•
	Beginning of Period	196,643,652		587,574,037		21,540,290		43,090,692		(11,788,802)		(77,996)		29,737,417
	End of Period	205,778,859		793,753,765		12,165,620		58,206,103		(11,483,316)	_	359,805		(5,255,86 <u>1</u> )
	INCREASE (DECREASE) IN													
	UNREALIZED APPRECIATION	\$ 9,135,207	\$_	<u>206,179,728</u>	\$	<u>(9,374,670</u> )	\$_	15,115,411	\$_	<u>305,486</u>	\$	437,801	\$	<u>(34,993,278</u> )
	NET REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENT	\$ 175,576,280	<u>\$</u>	323,659,951	\$	4,679,812	\$	15,115,411	\$	305,486	\$	1,145,107	\$	(10,316,030)
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### STATE BOARD OF INVESTMENT MINNESOTA POOLED ACCOUNTS SCHEDULE OF PARTICIPATION JUNE 30, 1987

	ACTIVE EQUITY ACCOUNT	PASSIVE EQUITY ACCOUNT	INTERNAL EQUITY ACCOUNT	REAL ESTATE ACCOUNT	RESOURCE ACCOUNT	VENTURE CAPITAL ACCOUNT	BOND MANAGERS ACCOUNT	POOLED ACCOUNT TOTAL
Teachers Retirement Fund	\$ 456,495,186	\$ 849,614,519 \$	-0-	\$ 166,060,533	\$ 27,688,767	\$ 38,253,860	\$ 445,876,810	\$ 1,983,989,675
Public Employees Retirement Fund	305,078,701	567,240,326	-0-	110,979,591	18,504,728	25,565,330	297,982,710	1,325,351,386
State Employees Retirement Fund	240,949,058	448,368,829	-0-	87,650,661	14,614,785	20,191,295	235,344,359	1,047,118,987
Public Employees Police & Fire	93,359,791	173,721,585	-0-	33,961,688	5,662,741	7,823,453	91,188,097	405,717,355
Highway Patrolmen's Retirement	17,705,262	32,952,607	-0-	6,440,691	1,073,915	1,483,682	17,293,425	76,949,582
Judges Retirement Fund	962,740	1,812,942	-0-	350,216	58,397	80,676	940,336	4,205,307
Supplemental Income Share Account	-0-	98,300,047	30,901,223	-0-	-0-	-0-	-0-	129,201,270
Supplemental Growth Share Account	68,996,730	-0-	21,442,190	-0-	-0-	-0-	-0-	90,438,920
Supplemental Index Account	-0-	1,906,449	-0-	-0-	-0-	-0-	-0-	1,906,449
Supplemental Bond Market Account	-0-	-0-	-0-	-0-	-0-	-0-	798,190	798,190
Variable Annuity Fund	129,022,773	-0-	41,401,154	-0-	-0-	-0-	-0-	170,423,927
TOTAL PARTICIPATION	\$1,312,570,241	\$2,173,917,304 \$	93,744,567	\$ 405,443,380	\$ 67,603,333	\$ 93,398,296	\$1,089,423,927	\$ 5,236,101,048

# MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES		MARKET VALUE
113,000 239,600 82,500 251,900 76,000 126,200 117,200 69,550	ALEXANDER & ALEXANDER AMERICAN FAMILY CORP AMERICAN GENERAL CORP AMERICAN MEDICAL INTL. AMERICAN STORES NEW AMES DEPARTMENT STORES AON CORP ATLANTIC RICHFIELD	\$ 2,923,875 3,114,800 3,269,063 4,817,588 5,567,000 2,997,250 3,017,900 6,624,638
156,300 136,700 149,800 182,500	BALLY MFG CO BANC ONE CORP BANK BOSTON CORP BANKERS TRUST NY CORP.	3,516,750 3,776,338 5,243,000 9,307,500
154,200 93,200 71,900	BOEING COMPANY BROWN GROUP BURLINGTON NORTHERN INC.	7,228,125 3,984,300 5,949,725
73,500 136,600 149,200 217,200	CENTEL CORP. CENTRAL & SO WEST CORP. CHARMING SHOPPES INC CHASE MANHATTAN CORP. CHEMICAL NEW YORK CORP	4,860,188 4,285,825 4,531,950 8,959,500
184,200 144,450 257,400 56,600	CHEMICAL NEW YORK CORP CHRYSLER CORP. CHURCHS FRIED CHICKEN CIGNA CORPORATION CIRCUIT CITY STORES INC	7,736,400 4,929,356 2,574,000 3,587,025
89,100 160,100 130,600 57,300	CIRCUIT CITY STORES INC CITICORP CITIZENS & SOUTHERN CORP. CNA FINL CORP COASTAL CORP	3,408,075 9,445,900 3,607,825 2,993,925 5,728,538
164,850 173,300 131,400 144,200	COMDISCO INC. COMMONWEALTH EDISON CO. COMMUNICATIONS SATELLITE	5,726,536 5,328,975 4,549,725 4,091,675 4,700,588
148,050 75,800 41,100 267,300 110,200	CONTEL CORP COOPER INDS. INC. CRAY RESEARCH INC CSX CORPORATION DAYTON-HUDSON CORP.	4,472,200 4,176,788 9,322,088 5,578,875
374,800 101,600 94,500 165,600	DATION HODSON CORP DSC COMMUNICATIONS CORP DUKE POWER CO. NC EMHART CORP VA FAMILY DLR STORES INC	2,857,850 4,533,900 4,228,875 2,898,000
75,800 142,600 142,500 132,700	FEDERAL EXPRESS CORP. FIRST BANK SYSTEM FIRST INTERST. BANCORP FIRST UNION CORP	5,097,550 4,812,750 8,514,375 3,367,263
157,700 200,000 106,100	FMC CORP NEW FPL GROUP INC. GENERAL DYNAMICS	5,420,938 6,300,000 7,082,175

## MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES		MARKET VALUE
115,000 61,000 55,900	GENERAL MOTORS CORP CL E GENERAL MOTORS CORP. GENERAL RE CORP.	4,398,750 5,040,125
206,300	GIBSON GREETINGS	3,032,575
94,200	GOLDEN WEST FIN'L	3,042,925
130,600		3,367,650 5,060,750
118,325	GTE CORP.	4,555,513
150,000	HASBRO INC.	3,731,250
115,000	HM FED S & L ASSN. S.D.	3,536,250
173,300	HOME DEPOT INC.	5,848,875
69,800	HONEYWELL INC.	5,758,500
137,100	HOSPITAL CORP. OF AMER.	6,358,013
86,600	HOUSEHOLD INTL.	4,589,800
129,250	HOUSTON INDUSTRIES INC.	4,297,563
376,800	HUMANA INC.	9,702,600
164,600	INTERGRAPH CORP.	3,703,500
123,800	KEMPER CORP.	3,806,850
154,500	KERR MCGEE CORP.	5,677,875
206,300	KEYSTONE INTL INC	4,280,725
178,400	KLM ROYAL DUTCH AIR	4,415,400
96,000	LEASEWAY TRANSN CORP	4,884,000
96,300	LIMITED INC.	4,177,013
57 <b>,</b> 900	LITTON INDS INC.	5,290,613
142,000	LIZ CLAIBORNE INC.	4,934,500
153,030	LOCKHEED AIRCRAFT CORP	7,900,174
57,000	LOEWS CORP	3,733,500
417,200	LONG ISLAND LTG CO	3,859,100
179,600	MARTIN MARIETTA	8,306,500
191,200	MAXICARE HEALTH PLANS	2,724,600
825,500	MCI COMMUNICATION	6,191,250
88,200	MELLON BANK CORP	3,142,125
51,400	MELVILLE CORPORATION	3,771,475
185,400	MFRS. HANOVER CORP.	8,273,475
329,600	MIDDLE SOUTH UTILS INC	3,502,000
110,550	MOBIL CORPORATION	5,624,231
63,400	MONSANTO CO.	5,301,825
74,000	MORGAN J P & COMPANY INC.	3,542,750
180,500	NATL. MEDICAL ENTER. INC.	4,941,188
335,700	NCNB CORP.	8,686,238
277,100	NIAGARA MOHAWK PWR CORP	4,606,788
142,600	NO. STS. POWER CO. MINN.	4,491,900
285,300	OCEAN DRILLING & EXPL CO	7,631,775
180,400	PACIFIC GAS & ELEC. CO.	3,630,550
131,100	PACIFICORP	4,703,213
202,500	PHILADELPHIA ELEC. CO.	4,277,813
246,000	PIC N SAVE CORP.	5,996,250
96,300	PIONEER HI-BRED INTL.	3,514,950

## MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES			MARKET VALUE
75,800 91,200 88,100	PNC FINANCIAL PRICE CO PRIME MTR INNS INC	\$	3,676,300 4,092,600 3,667,163
103,200	PROGRESSIVE CORP OHIO		3,096,000
62,200	RAYTHEON COMPANY		4,696,100
117,900	REEBOK INTERNATIONAL LTD		4,966,538
184,400	ROCKWELL INTL CORP		4,978,800
166,650	ROLLINS ENVIR. SVS.		3,707,963
45,100	ROYAL DUTCH PET. GLDRS.		5,953,200
121,650	RYDER SYSTEMS INC.		4,409,813
151,800	SAFECARD SVCS INC		3,092,925
196,500	SALOMON INC		6,459,938
162,500	SEAGATE TECHNOLOGY		5,525,000
226,300	SECURITY PACIFIC CORP.		9,504,600
268,900	SHARED MED. SYSTEMS CORP.	•	7,529,200
155,600	SONAT INC.		5,407,100
174,800	SOUTHERN CO		4,238,900
92,600	SOUTHLAND CORP.		6,204,200
125,700	SOUTHWESTERN BELL CORP.		4,886,588
92,500	SOVRAN FINANCIAL CORP.		3,283,750
76,700	ST. PAUL COS. INC.		3,509,025
146,100	SUBARU OF AMERICA INC.		1,753,200
81,300	SUN COMPANY INC		5,335,313
120,400	TELERATE INC		5,237,400
46,800	TELEX CORP.	•	3,311,100
141,100	TEXACO INC.		5,714,550
137,100	TEXAS UTILITIES CO.		4,421,475
112,100	TORCHMARK CORP		3,180,838
101,900	TOYS R US		3,693,875
183,900	TRACOR INC.		3,723,975
69,600	TRW INC.	•	3,662,700
77,800	TYCO LABS		3,403,750
232,100	U.S. HEALTHCARE INC.		3,336,438
86,800	U.S. WEST CORP		4,567,850
158,850	UNITED TECHNOLOGIES CORP.		8,299,913
166,050	UNITED TELECOM. INC.		4,545,619
150,900	UNOCAL CORP.		5,979,413
140,000	US AIR GROUP		6,632,500
81,800	US FIDELITY & GUAR. CO.		3,098,175
121,300	USG CORP HOLDING CO.		4,154,525
88,400	VALLEY NATIONAL CORP.		3,536,000
39,000	WENDYS INTL INC		380,250
191,200	WORTHINGTON INDS INC		4,158,600 5,050,800
146,400	YELLOW FREIGHT SYSTEM		3,434,200
123,200	ZAYRE CORP.		3,434,200
TOTAL EQU	ITY PORTFOLIO	\$	670,664,380

## MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
VALUE  696,000 2,888,000 2,565,000 13,675,000 1,000,000 745,000 1,105,000 6,000,000 2,102,000 3,769,104 2,602,840 7,896,000 10,000,000 6,000,000 6,000,000 1,439,581 125,427 1,656,000 6,000,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000 7,790,000 6,000,000	AMER AIRLINES EQMT TR CER AMER AIRLINES EQMT TR CER AMER AIRLINES EQMT TR CER AMERICAN CAN AMERICAN TELEPHONE & TELE AMOCO CORP ARCHER DANIELS MIDLAND CO ARISTAR INC. ASSOCIATES CORP. NORTH AM ATLANTIC RICHFIELD ATLANTIC RICHFIELD CO. AVCO FINANCIAL CORP BANKAMERICA CORP. BELL TEL OF CANADA BENEFICIAL CORP. BELL TEL OF CANADA BENEFICIAL CORP. BOSTON EDISON BRITISH COLUMBIA HYDRO BURLINGTON NORTHERN C.I.T. FINANCIAL C.I.T. FINAN	01/15/2008 01/15/2002 01/15/2004 10/15/1992 08/01/2000 07/15/2004 05/01/1992 05/15/1990 11/15/1992 07/15/2005 07/15/1996 12/01/2001 02/01/1990 12/01/2003 01/15/2008 12/01/2007 07/15/2002 04/15/2007 06/15/2007 06/15/2007 09/01/1993 07/03/1993 08/01/2008 08/15/2008 08/15/2008 08/15/2008 08/15/2008 08/15/2008 08/15/2008 08/15/2009 01/15/1992 08/01/2000 06/01/2004 11/15/1998 08/01/2002	9.900% 9.750% 9.850% 11.125% 6.000% 9.200% 0.000% 8.500% 11.450% 10.875% 9.250% 8.750% 11.125% 7.875% 9.000% 8.400% 7.500% 8.400% 7.500% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.750% 8.	737,224 2,932,735 2,628,202 14,561,550 756,370 735,688 8,824,740 1,100,679 6,643,740 2,329,058 3,826,319 2,480,194 8,417,373 7,556,600 9,146,768 5,112,420 11,991,300 5,698,920 5,376,060 1,419,254 123,133 1,750,409 5,443,260 5,973,120 7,173,577 2,509,650 5,470,440 4,680,750 271,605 5,356,560
18,140,000 7,904,000 6,000,000 15,000,000 470,000	CHEVRON CORP. CHRYSLER CORP CHRYSLER CORP CHRYSLER CORPORATION CHRYSLER FINANCIAL	07/01/2005 03/01/1992 11/01/1998 08/01/1992 09/01/1989	8.750% 12.750% 8.000% 11.040% 7.250%	17,200,529 8,929,465 5,459,820 15,909,600 458,250
6,400,000 7,020,000 5,700,000 1,000,000 4,200,000 5,800,000 6,000,000 6,000,000 1,734,375 1,040,040 250,000	CHRYSLER FINANCIAL CITICORP CITIES SVC CO CITIZENS UTILITIES COMMONWEALTH EDISON CONOCO INC CONSOLIDATED EDISON CONTINENTAL OIL COUPON TREASURY RCPT COUPON TREASURY RCPT COUPON TREASURY RCPT COUPON TREASURY RCPT	11/15/1988 03/15/2007 04/15/2011 12/31/1991 06/01/2007 04/01/2009 03/01/2004 11/01/1999 02/15/1999 11/15/1993 02/15/1989 08/15/1991	9.800% 8.450% 7.000% 4.800% 8.125% 9.375% 9.125% 0.000% 0.000% 0.000%	6,499,584 6,226,038 4,059,483 898,870 3,566,388 5,732,256 5,640,840 5,944,140 2,113,020 1,022,050 922,838 179,075

# MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
4,821,000 1,320,000 945,000	COUPON TREASURY RCPTS COUPON TREASURY RCPTS COUPON TREASURY RCPTS	11/15/2000 08/15/1991 11/15/1998	0.000% 0.000% 0.000%	\$ 1,432,126 945,516 342,222
1,656,250	COUPON TREASURY RCPTS	11/15/1998	0.000%	599,794
668,990	COUPON TREASURY RCPTS	11/15/1998	0.000%	242,268
166,875	COUPON TREASURY RCPTS	08/15/1991	0.000%	119,533
4,875,000	DANA CORP	11/15/2008	8.875%	4,473,300
1,650,000	DEERE (JOHN) CREDIT	10/31/1990	5.000%	1,490,412
6,000,000	DETROIT EDISON	06/15/2001	8.125%	5,077,200
6,000,000	DETROIT EDISON	11/15/2001	7.375%	5 <b>,0</b> 77 <b>,</b> 440
2,350,000	DETROIT EDISON	02/15/2017	9.000%	2,026,875
6,000,000	DOW CHEMICAL	02/01/2005	8.500%	5,491,320
1,255,000	DOW CHEMICAL	02/15/2008	8.625%	1,140,582
7,000,000 4,000,000	DOW CHEMICAL COMPANY	07/15/2007	7.875%	5,960,990
1,177,000	DU PONT (E.I.) DENEMOURS EXPORT DEVELOPMENT CORP	12/01/2001 07/15/1987	6.000% 14.375%	2,938,280
820,000	EXPORT DEVELOPMENT CORP	03/01/1988	14.125%	1,178,342 854,957
40,000,000	FEDERAL FARM CREDIT BANK	10/20/1997	11.900%	47,300,000
10,000,000	FEDERAL FARM CREDIT BANK	10/21/1991	10.600%	10,737,500
12,000,000	FEDERAL FARM CREDIT BANK	10/20/1993	11.800%	13,717,440
5,000,000	FEDERAL FARM CREDIT BANK	03/01/1994	12.350%	5,870,300
2,260,000	FEDERAL FARM CREDIT BANK	09/01/1988	12.875%	2,392,775
15,000,000	FEDERAL FARM CREDIT BANK	04/22/1991	14.100%	17,695,350
665,000	FEDERAL FARM CREDIT BANK	12/02/1991	13.650%	785,944
2,100,000	FEDERAL FARM CREDIT BANK	10/20/1988	11.500%	2,199,099
6,400,000	FEDERAL FARM CREDIT BANK	07/20/1988	11.700%	6,672,000
3,800,000	FEDERAL FARM CREDIT BANK	01/23/1989	13.050%	4,081,428
980,000	FEDERAL FARM CREDIT BANK	04/20/1989	12.500%	1,053,500
2,000,000	FEDERAL FARM CREDIT BANK	07/20/1987	10.625%	2,004,060
100,000	FEDERAL FARM CREDIT BANK	07/20/1989	13.700%	110,625
3,300,000 4,285,000	FEDERAL FARM CREDIT BANK FEDERAL HOME LOAN BANK	04/20/1988 09/25/1990	10.250% 12.500%	3,373,227 4,811,241
27,000,000	FEDERAL HOME LOAN BANK	07/26/1993	11.700%	30,754,620
2,865,000	FEDERAL HOME LOAN BANK	09/25/1991	11.750%	3,201,638
5,000,000	FEDERAL HOME LOAN BANK	04/27/1992		5,618,750
2,515,000	FEDERAL HOME LOAN BANK	12/27/1993	12.150%	2,939,406
5,000,000	FEDERAL HOME LOAN BANK	09/25/1989		5,481,250
6,295,000	FEDERAL HOME LOAN BANK	11/26/1990	13.700%	7,315,986
6,470,000	FEDERAL HOME LOAN BANK	02/25/1992	11.450%	7,189,788
5,775,000	FEDERAL HOME LOAN BANK	06/26/1995	10.000%	6,112,491
1,050,000	FEDERAL HOME LOAN BANK	03/25/1993	10.800%	1,149,089
775,000	FEDERAL HOME LOAN BANK	07/26/1993	7.750%	743,512
40,000,000	FEDERAL HOME LOAN BANK	09/25/1996	8.250%	38,024,800
1,075,000	FEDERAL HOME LOAN BANK	09/27/1993	7.950%	1,040,063
900,000	FEDERAL HOME LOAN BANK	04/26/1993	7.550%	856,683
5,650,000	FEDERAL HOME LOAN BANK	07/25/1990	9.750%	5,906,002
3,400,000	FEDERAL HOME LOAN BANK	10/26/1987	12.050%	3,453,108

### MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
3,250,000 18,600,000 375,000 250,000 925,000 950,000 200,000 10,300,000 17,400,000 22,000,000	FEDERAL HOME LOAN BANK FEDERAL NATIONAL MORGAGE FEDERAL NATIONAL MORTGAGE	12/28/1987 06/25/1996 01/25/1993 05/25/1993 04/25/1996 10/25/1993 12/27/1993 01/25/1994 12/10/2015 07/05/2014	8.050% 8.250% 9.500% 8.125% 7.750% 7.875% 7.375% 7.300% 10.350% 0.000%	\$ 3,269,305 17,704,782 390,233 243,905 853,313 915,563 187,688 9,636,886 19,292,250 1,821,729
2,050,000 1,320,000 500,000 350,000 2,025,000 3,000,000	FEDERAL NATIONAL MORTGAGE	01/10/1996 01/10/1995 10/10/1990 12/10/1997 02/10/1995	9.200% 11.950% 10.150% 7.100% 11.500%	2,083,313 1,539,450 581,250 307,342 2,315,466
5,000,000 5,000,000 6,000,000 5,000,000 5,000,000	FEDERAL NATIONAL MORTGAGE FIRESTONE TIRE &RUBBER FMC CORP GARDNER-DENVER GENERAL FOODS INC GENERAL MOTORS ACCEPT COR	03/10/2016 12/01/2004 01/15/2000 06/01/2005 06/15/2001 11/15/2006	8.200% 9.250% 9.500% 9.250% 6.000% 8.250%	2,677,500 4,791,500 5,480,500 5,820,900 3,663,700 4,410,000
5,000,000 8,500,000 5,290,000 1,200,000 4,200,000 3,200,000	GENERAL MOTORS ACCEPT COR GENERAL MOTORS ACCEPT COR	06/15/2001 06/01/1999 04/15/1988 08/01/1988 02/01/2000	8.750% 8.875% 10.375% 6.250% 8.750% 8.625%	4,712,950 8,124,130 5,392,626 1,183,548 3,970,932
3,500,000 1,000,000 8,150,000 200,000 6,000,000	GENERAL MOTORS CORPORATIO GENERAL TEL CO (FLA) GREYHOUND LEASING HARBOR TUG & BARGE HOUSEHHOLD FINANCE CORP	04/15/2016 05/01/1993 04/01/1994 03/15/2001 09/15/2007	8.125% 4.500% 13.625% 8.150% 8.200%	3,222,304 3,012,275 820,540 8,821,968 185,990 5,254,980
325,000 7,320,000 525,000 330,000 3,500,000 6,000,000	HOUSEHOLD FINANCE CORP HOUSEHOLD FINANCE CORP. HOUSTON LTG & POWER HYDRO QUEBEC HYDRO-QUEBEC HYDRO-QUEBECK	06/15/2004 10/01/2003 10/01/2007 07/15/1991 04/15/2026	9.625% 8.375% 8.375% 16.250% 8.250%	324,197 6,587,488 436,769 413,685 3,102,575
6,000,000 6,000,000 12,000,000 3,300,000 4,950,000	INDIANA & MICH ELECTRIC INTER-AMERICAN DEV. BANK INTERNORTH INC. INTL BK FOR RECON. & DEVL JEWEL CO'S INC.	12/01/1992	8.600% 9.500% 9.625% 9.625% 13.625% 11.500%	5,440,080 5,573,340 6,086,640 11,868,720 3,966,534 5,214,677
5,000,000 3,600,000 5,700,000 1,000,000	KANSAS POWER & LIGHT KMART LOEWS CORP LONG ISLAND LIGHTING	02/01/2008 03/01/2005 01/15/2007 04/01/1993	8.750% 12.500% 8.250% 4.400%	4,595,500 4,452,480 4,987,500 836,960

## MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR				MARKET
VALUE	SECURITY	MATURITY	COUPON	VALUE
2,018,045	LOUISVILLE & NASHVILLE	10/20/1991	9.000%	\$ 2,021,072
34,042	LOUISVILLE & NASHVILLE	04/20/1988	8.125%	34,143
50,000	MACMILLAN BLOEDEL LTD.	07/15/1992	6.500%	44,760
6,000,000	MANITOBA HYDRO	12/01/2006	8.625%	5,464,080
5,440,000	MANITOBA HYDRO ELEC BD	10/15/1997	7.650%	4,626,557
4,330,000	MANITOBA PROVINCE OF	07/01/1991	14.750%	5,203,491
800,000	MARATHON OIL COMPANY	02/01/2000	8.500%	689,144
9,000,000	MARTIN-MARIETTA CORP.	03/15/2011	7.000%	6,823,530
296,000	MERRILL LYNCH & CO	10/15/1987	11.625%	299,223
1,062,875	MISSOURI PACIFIC RR	06/01/1995	12.750%	1,221,350
1,613,047	MISSOURI PACIFIC RR	06/01/1994	9.750%	1,686,538
6,000,000	MOBIL CORP	06/15/2001	8.500%	5,655,000
2,150,000	MOBIL CORP	06/15/1988	8.750%	2,169,630
3,535,000	MONSANTO CO.	05/15/2008	8.750%	3,250,362
6,000,000	N. BRUNSWICK ELECTRIC	05/01/2001	9.375%	5,785,740
6,000,000	NATIONAL RURAL UTIL.	09/01/2009	9.750%	5,879,400
6,000,000	NORTHERN IND. PUB. SERV.	10/15/2006	8.375%	5,178,120
6,000,000	NORTHERN IND. PUB. SERV.	11/01/2007	8.500%	5,228,580
3,125,000	NORTHERN STATES POWER CO.	01/01/2004	8.375%	2,796,688
3,500,000	NOVA SCOTIA POWER COMM	03/15/1997	7.750%	2,977,345
6,400,000	NOVA SCOTIA POWER CORP	06/01/2008	9.625%	6,217,216
3,690,000	ONTARIO HYDRO	03/15/1996	9.500%	3,689,041
6,000,000	ONTARIO PROVINCE	03/01/2009	9.750%	6,014,700
6,000,000	ONTARIO PROVINCE	09/20/2009	9.875%	6,082,380
120,000	ONTARIO PROVINCE	03/10/1988	10.375%	122,270
1,120,000	ONTARIO PROVINCE	04/25/1989	10.500%	
1,000,000	ONTARIO PROVINCE OF CANAD	06/15/2005	9.125%	1,168,507
7,000,000	ONTARIO PROVINCE OF CANAD	06/01/2008	9.375%	955,570
6,920,000	ONTARIO, PROVINCE OF ONTARIO, PROVINCE OF	11/30/2008	9.375%	6,827,100
6,000,000		02/01/2009		6,747,761
3,765,000	PACIFIC GAS & ELECTRIC		8.500% 8.250%	5,164,020
•	PACIFIC GAS & ELECTRIC	09/01/2008 04/01/2005		3,184,286
5,000,000	PACIFIC TEL & TEL		8.650%	4,521,000
5,000,000	PACIFIC TEL & TEL	07/01/2003	6.500%	3,894,400
5,000,000	PACIFIC TEL & TEL CO	10/01/2006	8.750%	4,616,750
30,000	PACIFIC TELE & TELE	11/01/1990	4.625%	27,090
8,159,000	PENNEY J.C.	05/01/1989	0.000%	7,046,439
7,930,000	PENNEY J.C. CO.	05/01/2006	6.000%	5,464,246
755,000	PHILADELPHIA ELECTRIC	08/01/2002	9.625%	716,306
2,777,000	PHILADELPHIA ELECTRIC	03/15/2008	9.125%	2,552,396
6,000,000	PHILADELPHIA ELECTRIC	03/01/2006	9.125%	5,505,660
6,000,000	PHILADELPHIA ELECTRIC	01/15/1999	7.500%	5,119,380
3,060,000	PHILADELPHIA ELECTRIC	03/15/2007	8.625%	2,667,953
4,075,000	PHILADELPHIA ELECTRIC	01/15/2004	8.500%	3,590,320
5,000,000	PHILLIPS PETE CO	03/15/1997	13.875%	5,650,000
1,960,000	PRIVATE EXPORT FUNDING	05/31/1988	10.250%	2,005,413
3,500,000	PROCTOR & GAMBLE	01/15/2017	8.125%	3,075,625
1,682,959	PUBLIC SERVICE ELEC & GAS	07/01/2009	9.750%	1,609,683

### MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MAMIDIMU	GOUDON	MARKET
VADOL	SECORITI	MATURITY	COUPON	VALUE
6,000,000	PUBLIC SERVICE ELEC & GAS	09/01/2007	8.125%	\$ 5,008,200
6,000,000	QUEBEC PROVINCE	04/15/2004	9.200%	5,705,160
4,400,000	QUEBEC-HYDRO ELECTRIC	01/01/2004	8.250%	3,913,052
1,110,000	ROCHESTER TELEPHONE	09/01/1993	4.750%	<b>941,9</b> 79
8,775,000	SASKATCH., PROVINCE OF	04/15/2008	9.250%	8,347,219
6,000,000	SASKATCHEWAN CDA	05/15/2007	8.625%	5,445,240
6,000,000	SASKATCHEWAN CDA	11/15/2006	8.700%	5,513,160
17,203,000	SASKATCHEWAN PROVINCE OF	10/01/1991	16.375%	21,818,565
3,317,938	SEABOARD COAST LINE RR	10/01/1992	8.250%	3,252,607
3,216,569	SEABOARD COAST LINE RR	09/01/1993	9.625%	3,309,206
3,000,000	SEARS	11/15/2001	7.000%	2,428,350
1,525,000	SEARS ROEBUCK & CO	01/15/1988	10.250%	1,547,143
13,000,000	SEARS ROEBUCK & CO.	05/01/2000	6.000%	9,821,760
420,000	SHEARSON LEHMAN BROS.	08/15/1993	7.875%	394,691
6,000,000	SONAT	06/01/1996	9.875%	5,947,680
5,000,000	SOUTH CENTRAL BELL TEL	12/01/2004	8.250%	4,491,650
3,000,000 5,000,000	SOUTH CENTRAL BELL TEL	11/01/2007	7.375%	2,497,140
3,100,000	SOUTHWESTERN BELL TEL SOUTHWESTERN BELL TEL	08/01/2007	8.750%	4,657,950
450,000	SPRAGUE ELECTRIC CO	06/01/2003	5.875%	2,306,865
952,540	STANDARD OIL OF CALIF.	09/01/1988 03/30/1997	4.375%	425,336
884,502	STANDARD OIL OF CALIF.	03/02/1997	7.700% 7.700%	858,944 790,293
884,502	STANDARD OIL OF CALIF.	02/10/1997	7.700%	798,449
3,466,211	STANDARD OIL OF CALIF.	07/02/1999	8.500%	3,256,401
165,000	STATES STEAMSHIP CO	03/31/1993	5.100%	142,306
10,000,000	STRPD U.S. TREAS. BONDS	05/15/2006	0.000%	1,899,000
5,000,000	STUDEBAKER-WORTHINGTON	11/15/2003	9.350%	4,916,800
11,385,000	TENNECO INC	09/01/1992	13.700%	13,440,220
5,700,000	TENNECO INC	01/15/2017	9.375%	5,142,540
3,000,000	TEXAS POWER & LIGHT	01/01/2006	8.600%	2,581,050
2,500,000	TEXAS POWER & LIGHT	02/01/2009	9.375%	2,270,125
170,000	TRANSAMERICA FINANCIAL NO	03/15/1991	7.875%	165,575
250,000	TREASURY INVT GROWTH RCPT	02/15/1999	0.000%	88,043
1,619,000	TREASURY INVT GROWTH RCPT	11/15/2000	0.000%	586,305
44,810,000	U.S.A. TREASURY BOND	11/15/2002	11.625%	55,788,450
38,704,000	U.S.A. TREASURY BOND	11/15/2004	11.625%	48,476,760
29,475,000	U.S.A. TREASURY BOND	02/15/2007	7.625%	26,674,875
48,000,000	U.S.A. TREASURY BOND	02/15/2010	11.750%	60,360,000
40,000,000	U.S.A. TREASURY BOND	02/15/1994	9.000%	41,462,400
44,950,000	U.S.A. TREASURY BOND	02/15/2003	10.750%	52,591,500
53,100,000	U.S.A. TREASURY BOND	05/15/1999	8.500%	52,900,875
40,000,000	U.S.A. TREASURY BOND	08/15/2001	8.000%	38,450,000
12,200,000 9,450,000	U.S.A. TREASURY BOND U.S.A. TREASURY BOND	08/15/2008	8.375%	11,849,250 9,077,859
72,500,000	U.S.A. TREASURY BOND	05/15/2005 05/15/1995	8.250% 10.375%	80,724,400
40,000,000	U.S.A. TREASURY BOND	11/15/2010	12.750%	54,000,000
60,000,000	U.S.A. TREASURY BOND	11/15/2010	11.500%	71,137,200
-0,000,000	OTETITION DONE	//-	TT. JUU 0	1111111111

# MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR					MARKET
VALUE	SECU	RITY	MATURITY	COUPON	VALUE
2 625 000		IIDU DOND	05 /15 /0011	3.2 0550	
2,625,000 40,350,000		URY BOND	05/15/2011		•
39,650,000	U.S.A. TREAS U.S.A. TREAS	URY BOND URY BOND	02/15/2000 02/15/2001	7.875%	38,168,679
28,020,000	U.S.A. TREAS		08/15/2000	11.750%	49,612,063
22,300,000		URY BOND	02/15/1995	8.375% 10.500%	27,573,361
40,000,000	U.S.A. TREAS		05/15/1995	12.625%	24,969,087
28,326,000		URY BOND	08/15/2013	12.000%	49,724,800 36,894,615
77,200,000		URY BOND	05/15/2015	12.000%	99,298,500
146,100,000		URY BOND	08/15/2005	10.750%	171,850,125
3,125,000		URY BOND	05/15/2001	13.125%	4,244,125
10,000,000		URY BOND	02/15/2006	9.375%	10,631,200
7,000,000		URY BOND	08/15/2001	13.375%	9,660,000
26,600,000	U.S.A. TREAS		05/15/2009	9.125%	27,431,250
19,400,000	U.S.A. TREAS		11/15/2009	10.375%	22,067,500
275,000		URY BOND	11/15/2003	11.875%	348,563
6,200,000	U.S.A. TREAS		08/15/2003	11.125%	7,463,250
3,075,000	U.S.A. TREAS		05/15/2003	10.750%	3,599,657
15,745,000	U.S.A. TREAS		05/15/2004	12.375%	20,724,356
12,200,000		URY BOND	02/15/2002	14.250%	17,789,064
5,100,000		URY BOND	08/15/2004	13.750%	7,359,912
28,204,000		URY COUPON	08/15/1998	0.000%	10,683,393
1,308,000	U.S.A. TREAS		02/15/1991	0.000%	982,269
16,000,000	U.S.A. TREAS	URY COUPON	11/15/2008	0.000%	2,438,240
10,600,000	U.S.A. TREAS	URY COUPON	05/15/2009	0.000%	1,545,798
26,500,000	U.S.A. TREAS	URY COUPON	08/15/2004	0.000%	5,850,140
22,500,000	U.S.A. TREAS	URY COUPON	05/15/2004	0.000%	4,859,550
3,830,000	U.S.A. TREAS	URY COUPON	02/15/2004	0.000%	883,619
11,360,000	U.S.A. TREAS	URY COUPON	11/15/2003	0.000%	2,684,027
8,500,000	U.S.A. TREAS	URY COUPON	02/15/2009	0.000%	1,266,840
80,000,000	U.S.A. TREAS	URY COUPON	08/15/2009	0.000%	11,410,400
10,525,000	U.S.A. TREAS	URY COUPON	08/15/2003	0.000%	2,541,682
11,850,000	U.S.A. TREAS	URY COUPON	11/15/1999	0.000%	4,011,344
14,000,000	U.S.A. TREAS	URY COUPON	02/15/1999	0.000%	5,076,680
7,125,000	U.S.A. TREAS	URY COUPON	08/15/1999	0.000%	2,464,823
6,160,000	U.S.A. TREAS	URY COUPON	05/15/1998	0.000%	2,377,822
16,350,000	U.S.A. TREAS	URY COUPON	11/15/1998	0.000%	6,060,782
15,600,000		URY COUPON	11/15/2000	0.000%	4,788,732
1,000,000		URY COUPON	02/15/2002	0.000%	274,460
16,900,000		URY COUPON	05/15/2002	0.000%	4,537,819
11,500,000		URY COUPON	08/15/2002	0.000%	3,019,785
67,000,000	U.S.A. TREAS		08/15/2012	0.000%	7,571,670
25,000,000	U.S.A. TREAS		08/15/2013	0.000%	2,623,000
34,000,000	U.S.A. TREAS		05/15/2013	0.000%	3,645,820
92,000,000		URY COUPON	02/15/2013	0.000%	10,078,600
2,400,000		URY COUPON	05/15/2010	0.000%	501,960
99,250,000	U.S.A. TREAS		08/15/2010	0.000%	13,106,955
75,000,000	U.S.A. TREAS	URY COUPON	08/15/2011	0.000%	9,201,000

### MINNESOTA STATE BOARD OF INVESMENT POST RETIREMENT FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY		MATURITY	COUPON		MARKET VALUE	
25,000,000	U.S.A. TRE	ASURY	COUPON	05/15/2011	0.000%	Ś	3,135,000
25,000,000		ASURY		02/15/2014	0.000%	٧	2,610,250
25,000,000		ASURY		08/15/2014	0.000%		2,501,750
95,300,000		ASURY		02/15/2012	0.000%		11,247,306
42,000,000		ASURY		02/15/2011	0.000%		5,381,880
49,250,000		ASURY		02/15/2010	0.000%		6,795,023
3,560,000		ASURY		08/15/1994	12.625%		4,372,107
6,290,000		ASURY		04/15/1989	14.375%		7,019,263
8,400,000		ASURY		07/15/1989	14.500%		9,499,896
5,650,000		ASURY		10/15/1989	11.875%		6,149,686
10,000,000		ASURY		11/15/1994	11.625%		11,796,900
11,800,000		ASURY		01/15/1988	12.375%		12,159,546
330,000		ASURY		12/31/1988	10.625%		345,573
5,000,000		ASURY		05/15/1991	14.500%		6,071,850
53,750,000		ASURY		01/15/1990	10.500%		57,193,225
4,800,000		ASURY		07/15/1988	14.000%		5,134,512
535,000		ASURY		04/15/1988	13.250%		561,081
5,265,000		ASURY		10/15/1988	15.375%		5,817,825
3,400,000		ASURY		01/15/1989	14.625%		3,760,196
115,000,000		ASURY	NOTE	05/15/1995	11.250%		133,651,850
65,000,000		ASURY	NOTE	08/15/1995	10.500%		72,921,550
3,500,000		ASURY	NOTE	09/30/1987	9.000%		3,521,315
225,000		ASURY		01/15/1993	8.750%		231,327
1,475,000		ASURY		01/31/1988	8.125%		1,486,756
1,300,000		ASURY		07/31/1987	8.875%		1,303,042
5,800,000		ASURY		10/31/1987	8.875%		5,840,774
11,250,000		ASURY		11/15/1990	13.000%		12,916,350
2,600,000		ASURY		07/15/1991	13.750%		3,111,056
20,000,000		ASURY		11/15/1995	9.500%		21,293,800
1,800,000		ASURY		04/15/1990	10.500%		1,922,058
3,425,000		ASURY		01/15/1991	11.750%		3,824,218
5,600,000		ASURY		10/15/1990	11.500%		6,181,000
52,000,000		ASURY		08/15/1989	6.625%	•	51,090,000
1,610,000		ASURY		02/15/2010	0.000%		222,132
10,000,000				11/15/1994	0.000%		5,412,500
50,000,000	U.S.A. TRE				0.000%		5,178,000
50,000,000	U.S.A. TRE			08/15/2015	0.000%		5,051,000
3,527,000	UNION TANK			12/15/1995	9.500%		3,638,876
1,300,000	USX CORP			01/15/1992	9.000%		1,244,750
60,000	VIRGINIA E	LEC. 8	POWER	12/01/1987	4.500%		59,500
4,000,000	WESTINGHOU			01/15/1989	10.750%		4,144,400
10,450,000				04/15/1993	11.375%		11,047,427
4,555,000	WISCONSIN			05/15/2008	8.875%		4,252,047
TOTAL BOND PORTFOLIO				\$ 2	,898,641,761		

## MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL RET. INCOME SHARES ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
1,250,000 1,500,000 2,000,000 2,000,000 1,000,000 1,000,000 2,000,000 500,000 5,000,000 2,255,513 1,927,978 1,907,660 1,000,000 1,965,901 1,000,000 2,000,000 2,000,000 2,000,000 2,000,000	ASSOCIATES CORP. NORTH AM FEDERAL FARM CREDIT BANK FEDERAL FARM CREDIT BANK FEDERAL HOME LOAN MORTGAGE FEDERAL NATIONAL MORTGAGE FNMA 15 YR # TBA FNMA POOL # 002499 FNMA POOL # 006226 FNMA POOL # 2494 GENERAL MOTORS ACCEPT. CO GERBER PRODUCTS CO GNMA II POOL # 000587 HOUSTON NATURAL GAS CO. MISSISSIPPI POWER & LIGHT NEW YORK STATE ELEC. & GA SEAFIRST CORP. SECURITY PACIFIC CORP U.S.A. TREASURY NOTE	11/15/1992 03/01/1994 01/22/1990 08/30/1991 10/13/1987 11/10/1997 01/10/1990 02/13/1990 07/05/2014 06/10/1988 07/01/2002 03/01/2016 12/01/2015 05/01/2016 12/01/2016 10/15/1989 11/01/1994 07/20/2016 11/15/1992 06/01/1998 04/01/1993 06/01/1999 11/15/1999 11/15/1999 11/15/1999 11/15/1999 11/15/1999 09/30/1989 01/31/1988 02/15/2010	11.450% 12.350% 11.150% 11.850% 12.550% 11.450% 11.050% 0.000% 10.500% 8.000% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750% 11.750%	\$ 1,384,113 1,761,090 2,137,500 2,230,000 1,015,620 1,015,940 2,162,500 2,146,240 1,407,700 515,235 4,700,000 2,276,647 2,034,017 1,732,384 1,011,220 1,095,670 1,790,813 1,014,430 2,002,660 710,185 500,730 2,019,800 1,659,868 3,265,320 3,305,610 7,776,525 3,628,692 1,655,640
TOTAL BON	D PORTFOLIO			\$ 57,956,149

## MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL RET. INCOME SHARES ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES	SECURITY	MARKET VALUE
30,232 61,661	MINN INTERNAL POOLED FUND MINN. INDEXED FUND POOL	\$ 30,901,223 98,303,009
TOTAL EQUIT	TY PORTFOLIO	\$ 129,204,233

## MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL RET. GROWTH SHARES ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES	SECURITY	MARKET VALUE
20,329 52,263	MINN INTERNAL POOLED FUND MN. EXT. ACTIVE MAN. POOL	\$ 21,442,190 69,013,493
TOTAL EQUIT	Y PORTFOLIO	\$ 90,455,683

# MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL COMMON STOCK INDEX ACOUNT ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES	SECURITY		MARKET VALUE
1,189	MINN. INDEXED FUND	POOL	\$ 1,906,509
TOTAL EQUITY	PORTFOLIO		\$ 1,906,509

### MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL BOND MARKET ACCOUNT ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE SECURITY	MATURITY COUPON		MARKET VALUE
799 MN. FIXED INCOME POOL		\$	798,566
TOTAL BOND PORTFOLIO		\$	798,566

### MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL GUARANTEED RETURN ACCOUNT ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY		MATURITY	COUPON	MARKET VALUE
4,445,506	PRINCIPAL MUTUAL	LIFE GIC	10/31/1989	7.720%	4,445,506
TOTAL BON	D PORTFOLIO			:	4,445,506

## MINNESOTA STATE BOARD OF INVESMENT SUPPLEMENTAL RET. BOND FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
700,000	AMERICAN CAN	10/15/1992	11.125%	\$ 745,381
610,000	AMERICAN MEDICAL INTL.	08/15/1992	14.375%	<b>686,9</b> 03
350,000	ASSOCIATES CORP. NORTH AM	11/15/1992	11.450%	<b>387,5</b> 52
400,000	FEDERAL FARM CREDIT BANK	03/01/1994	12.350%	469,624
300,000	FEDERAL FARM CREDIT BANK	01/20/1992	11.500%	331,500
200,000	FEDERAL NATIONAL MORTGAGE	10/13/1987	12.125%	202,874
1,000,000	FEDERAL NATIONAL MORTGAGE	04/10/1992	12.000%	1,135,620
1,290,000	FEDERAL NATIONAL MORTGAGE	06/10/1992	10.125%	1,372,238
300,000	FLUOR CORP	08/01/1993	9.500%	286,500
1,200,000	FORD MOTOR CREDIT CORP	08/15/1987	13.000%	1,206,372
200,000	GENERAL MOTORS ACCEPT. CO	10/15/1989	11.750%	202,244
300,000	HOSPITAL CORP OF AMERICA	08/15/1993	7.875%	274,869
300,000	NEW YORK STATE ELEC. & GA	04/01/1993	11.750%	304,365
600,000	OCCIDENTAL PETE CORP	10/15/1994	9.650%	576,000
300,000	PENNEY J.C.	02/01/1993	12.125%	323,325
400,000	SHEARSON LEHMAN BROS.	08/15/1993	7.875%	375,896
480,000	U.S.A. TREASURY NOTE	04/15/1989	14.375%	535,651
250,000	U.S.A. TREASURY NOTE	11/15/1991	14.250%	307,265
250,000	U.S.A. TREASURY NOTE	01/15/1989	14.625%	276,485
300,000	U.S.A. TREASURY NOTE	01/15/1993	8.750%	308,436
500,000	UNION OIL OF CALIFORNIA	03/01/1994	9.750%	497,505
330,000	WILLAMETTE INDUSTRIES INC	04/15/1993	11.375%	348,866
TOTAL BON	D PORTFOLIO			\$ 11,155,470

## MINNESOTA STATE BOARD OF INVESMENT MINNESOTA VARIABLE ANNUITY FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES	SECURITY	MARKET VALUE
38,114 97,996	MINN INTERNAL POOLED FUND MN. EXT. ACTIVE MAN. POOL	\$ 41,401,154 129,054,199
TOTAL EQUITY	PORTFOLIO	\$ 170,455,353

#### MINNESOTA STATE BOARD OF INVESMENT PERMANENT SCHOOL FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
1,700,000 5,000,000 5,000,000 2,261,462 1,735,226 4,000,000 2,500,000	ASSOCIATES CORP NO. AMERI ATLANTIC RICHFIELD ATLANTIC RICHFIELD CO. ATLANTIC RICHFIELD CO. ATLANTIC RICHFIELD CO. BARNETT BANKS INC BELL TELE. CO CANADA	08/01/1990 03/01/2011 03/01/2016 07/15/1996 12/01/2001 03/01/1999 09/01/1995	11.000% 9.125% 9.875% 9.250% 8.750% 8.500% 4.850%	4,822,400 5,155,950 2,295,791 1,653,463 3,747,520 2,074,400
750,000 5,000,000 3,678,000 500,000 5,000,000 5,000,000	CANADIAN PACIFIC, LTD. CITICORP PERSON TO PERSON CONSOLIDATED NATURAL GAS CONSTRUCTION AGGREGATE CSX TRANSPORTATION DOW CHEMICAL	01/15/1992 03/01/1998 06/01/1997 06/01/1991 08/15/2006 04/01/2006	8.625% 8.750% 8.125% 7.500% 9.000% 8.625%	752,895 4,670,650 3,515,543 481,250 4,759,650 4,598,800
365,000 120,000 116,000 114,000 286,000 5,000,000	EAGLE TERMINAL TANKERS FARRELL LINES, INC FARRELL LINES, INC FARRELL LINES, INC FARRELL LINES, INC FEDERAL FARM CREDIT BANK	06/01/1989 09/20/1998 11/27/1997 02/28/1998 04/01/1988 10/21/1991	6.000% 9.000% 9.000% 9.000% 8.050%	351,729 116,287 113,317 110,580 284,948 5,368,750
100,000 600,000 5,000,000 3,000,000 7,000,000 3,000,000	FEDERAL FARM CREDIT BANK FEDERAL FARM CREDIT BANK FEDERAL FARM CREDIT BANK FEDERAL FARM CREDIT BANK FEDERAL HOME LOAN BANK FEDERAL HOME LOAN BANK FEDERAL HOME LOAN BANK	03/01/1994 07/20/1992 09/01/1988 10/23/1989 03/25/1988 07/26/1993 04/27/1992	12.350% 13.750% 12.875% 12.450% 10.200% 11.700%	117,406 724,872 5,293,750 3,271,860 7,164,080 3,417,180
5,000,000 3,000,000 4,000,000 3,000,000 3,000,000 500,000	FEDERAL HOME LOAN BANK FEDERAL HOME LOAN MORTGAG FEDERAL NATIONAL MORTGAGE FEDERAL NATIONAL MORTGAGE FEDERAL NATIONAL MORTGAGE FEDERAL NATIONAL MORTGAGE	09/25/1989 08/30/1991 05/10/1990 10/13/1987 10/12/1992 10/10/1988	11.700% 12.500% 11.850% 10.300% 12.550% 10.600% 9.500%	3,371,250 5,481,250 3,345,000 4,233,760 3,046,860 3,273,750 513,435
3,000,000 5,000,000 1,827,410 1,653,606 1,929,651 2,207,627	FMC CORP FORD MOTOR COMPANY GNMA POOL # 00505 GNMA POOL # 02290 GNMA POOL # 02291	01/15/2000 04/01/2006 11/15/2001 12/15/2001 03/15/2003 04/15/2003	9.500% 9.500% 8.875% 6.500% 6.500% 6.500%	2,910,000 4,748,000 1,613,260 1,459,824 1,703,520 1,948,921
1,928,587 280,006 911,427 589,494 368,517 317,756	GNMA POOL # 02424 GNMA POOL # 03627 GNMA POOL # 03972 GNMA POOL # 03974 GNMA POOL # 03979 GNMA POOL # 04004	04/15/2003 07/15/2004 07/15/2004 11/15/2004 08/15/2004 08/15/2004	6.500% 8.250% 8.250% 9.000% 8.250% 8.250%	1,702,581 262,330 853,889 571,809 345,253 297,696
812,560 278,725 442,991	GNMA POOL # 04092 GNMA POOL # 04145 GNMA POOL # 04472	07/15/2004 08/15/2004 09/15/2004	8.250% 8.250% 9.000%	761,263 261,129 429,701

#### MINNESOTA STATE BOARD OF INVESMENT PERMANENT SCHOOL FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
365,945 551,648	GNMA POOL # 09680 GNMA POOL # 10887	06/15/2006 07/15/2006	8.250% \$ 8.250%	342,843 507,688
3,569,282	GNMA POOL # 12383	02/15/2005	8.750%	3,372,686
266,267	GNMA POOL # 17904	08/15/2007	8.000%	247,628
442,440	GNMA POOL # 18017	07/15/2007	8.000%	411,469
710,906	GNMA POOL # 18058	07/15/2007	8.000%	661,143
281,556	GNMA POOL # 18592	11/15/2007	8.000%	261,847
592,425	GNMA POOL # 18768	08/15/2007	8.000%	550,955
547,056	GNMA POOL # 18782	10/15/2007	8.000%	508,762
645,269	GNMA POOL # 19105	07/15/2007	8.000%	600,101
517,435	GNMA POOL # 19667	01/15/2008	8.000%	481,215
637,142	GNMA POOL # 19740	10/15/2007	8.000%	592,542
3,735,797	GNMA POOL # 19784	09/15/2007	8.000%	3,474,291
529,046 42,578	GNMA POOL # 19997	10/15/2007	8.000%	492,013
601,478	GNMA POOL # 20074 GNMA POOL # 20263	03/15/2007 11/15/2007	8.000%	39,598
647,814	GNMA POOL # 20203 GNMA POOL # 20393	11/15/2007	8.000% 8.000%	559,375
651,877	GNMA POOL # 20393 GNMA POOL # 20495	11/15/2007	8.000%	602,467 606,245
708,752	GNMA POOL # 21037	11/15/2007	8.000%	659,139
5,000,000	GNMA POOL # 210643	06/15/2017	8.000%	4,554,688
5,014,862	GNMA POOL # 210687	06/15/2017	8.000%	4,568,226
614,949	GNMA POOL # 21480	01/15/2008	8.000%	571,902
680,409	GNMA POOL # 21615	01/15/2008	8.000%	632,781
652,185	GNMA POOL # 21930	03/15/2008	8.000%	606,532
749,924	GNMA POOL # 22012	04/15/2008	8.000%	697,429
3,500,000	GNMA POOL # 224960	06/15/2017	8.000%	3,188,281
648,715	GNMA POOL # 22820	12/15/2007	8.000%	603,305
734,911	GNMA POOL # 24078	02/15/2008	8.000%	683,468
700,695	GNMA POOL # 24417	03/15/2008	8.000%	651,646
3,209,130	GNMA POOL # 27638	10/15/2008	9.000%	3,080,764
5,657,048	GNMA POOL # 606	08/20/2016	8.000%	5,153,218
1,978,051	GNMA POOL # 623	09/20/2016	8.000%	1,801,880
3,496,996	GNMA POOL# 217626	05/15/2017	8.000%	3,185,544
4,000,000	KANSAS POWER & LIGHT	06/01/2007	8.125%	3,460,560
944,000	MATSON NAVIGATION CO	11/10/1994	7.500%	895,526
2,500,000	MICHIGAN BELL TELEPHONE C	06/01/2015	8.125%	2,139,925
4,575,482 1,963,633	MN MTG. MARKETING CORP MN MTG. MARKETING CORP	06/01/2014 09/01/2014		5,000,144 2,147,417
963,384	MN MTG. MARKETING CORP	02/01/2015		1,064,539
2,512,000	MOORE-MCCORMACK LEASING	07/15/2001	8.875%	2,477,360
3,000,000	MOUNTAIN STATES TEL & TEL	06/01/2013	7.750%	2,506,320
2,500,000	NORTHERN STATES POWER CO.	01/01/2004	8.375%	2,237,350
1,619,200	NORTON SIMON, INC.	06/01/2004	9.875%	1,653,705
1,500,000	NORWEST CORP	03/15/2003	7.750%	1,271,655
1,500,000	NORWEST CORP	10/15/1990	5.125%	1,359,225
496,500	PENN TANKER CO.	11/10/1989	6.000%	474,078
1,352,000	PUGET SOUND TUG & BARG	02/15/2001	9.125%	1,313,495

### MINNESOTA STATE BOARD OF INVESMENT PERMANENT SCHOOL FUND ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON		MARKET VALUE
3,896,499	SBA POOL - MEEDA BONDS SE	• •	11.700%	\$	4,529,680
4,000,000	SECURITY PACIFIC CORP	05/15/1999	9.750%		4,039,600
4,000,000	SOUTHERN BELL TEL & TEL	03/15/2013	7.625%		3,301,600
1,000,000	SPRAGUE ELECTRIC CO	09/01/1988	4.375%		945,190
702,732	STANDARD OIL OF CALIF.	09/07/1997	7.700%		666,211
702,732	STANDARD OIL OF CALIF.	09/08/1997	7.700%		631,798
702,732	STANDARD OIL OF CALIF.	11/06/1997	7.700%		665,333
188,000	STATES STEAMSHIP CO	03/31/1993	5.100%		162,142
3,000,000	TEXAS POWER & LIGHT	02/01/2009	9.375%		2,724,150
7,500,000	U.S.A. TREASURY BOND	11/15/2002	11.625%		9,337,500
3,500,000	U.S.A. TREASURY BOND	11/15/2004	11.625%		4,383,750
1,000,000	U.S.A. TREASURY BOND	02/15/2007	7.625%		905,000
5,000,000	U.S.A. TREASURY BOND	08/15/2008	8.375%		4,856,250
2,000,000	U.S.A. TREASURY BOND	11/15/2010	12.750%		2,700,000
2,000,000	U.S.A. TREASURY BOND	11/15/1995	11.500%		2,371,240
50,000	U.S.A. TREASURY BOND	11/15/1998	3.500%		45,188
3,000,000	U.S.A. TREASURY BOND	02/15/2001	11.750%		3,753,750
8,000,000	U.S.A. TREASURY BOND	08/15/2005	10.750%		9,410,000
2,000,000	U.S.A. TREASURY BOND	11/15/1993	8.625%		2,043,120
5,000,000	U.S.A. TREASURY BOND	11/15/2009	10.375%		5,687,500
5,500,000	U.S.A. TREASURY BOND	05/15/2003	10.750%		6,438,410
10,000,000	U.S.A. TREASURY BOND	05/15/2017	8.750%		10,271,900
15,000,000	U.S.A. TREASURY NOTE	10/15/1989	11.875%		16,326,600
40,000	U.S.A. TREASURY NOTE	11/15/1987	7.625%	•	40,144
10,000,000	U.S.A. TREASURY NOTE	03/31/1988	7.125%		10,010,900
2,000,000	U.S.A. TREASURY NOTE	11/15/1989	10.750%		2,133,740
TOTAL BON	D PORTFOLIO			\$	291,140,406

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
938 200 8,760 700 129	BCI HOLDINGS C B S INC GENERAL MOTORS CONT MARY KAY CORP SAFEWAY STORES INC.	05/01/2002 08/01/1995 10/28/1991 11/30/2000 11/24/2006	10.875% 0.000% 0.000%	\$ 972 215 0 308 133
TOTAL BON	D PORTFOLIO			\$ 1,628

NO. OF SHARES		MARKET VALUE
15,000	A & W BRANDS INC	\$ 180,000
39,000	A G EDWARDS, INC	1,062,750
10,400	AAR CORP	334,100
10,000	AARON RENTS INC	110,000
165,000	ABBOTT LABS	10,291,875
5,000	ABM GOLD CORP	36,875
51,300	ACCO WORLD CORP	1,462,050
15,000	ACME CLEVELAND CORP	191,250
3,528	ACME ELEC CORP	27,783
5,400	ACME STL CO DEL	75,600
10,500	ADOBE RESOURCES	95,813
16,000	ADT , INC.	510,000
9,200	ADV SEMI CONDUCTOR	77,050
46,800	ADVANCED MICRO DEV.	889,200
122,807	ADVO SYS INC.	1,089,912
79,500	AETNA LIFE & CASUALTY CO.	4,730,250
24,000	AFFILATED PUBNS	1,464,000
10,000	AFFILIATED BANKSHARES COL	126,250
69,750	AFG INDS INC	1,883,250
72,300	AHMANSON H.F. CO.	1,554,450
46,100	AIR PRODUCTS & CHEM. INC.	2,166,700
21,000	AIR WIS AVIATION INC	215,250
19,100	AIRBORNE FGHT CORP	630,300
45,000 26,000	ALASKA AIR GROUP ALBERTSONS INC	916,875 1,449,500
12,000	ALC COMMUNICATIONS CORP	39,000
135,900	ALCAN ALUMINUM LTD.	4,127,963
38,200	ALCO STANDARD CORP.	993,200
157	ALEX BROWN INC	3,219
27,800	ALEXANDER & ALEXANDER	719,325
19,900	ALEXANDER & BALDWIN INC	1,099,475
8,500	ALEXANDERS INC	409,063
30,000	ALFIN FRAGRANCES INC	120,000
8,489	ALLEGHANY CORP NEW	950,768
101,000	ALLEGHENY BEVERAGE CORP	1,237,250
23,500	ALLEGHENY & WESTN ENERGY	666,813
11,000	ALLEGHENY INTL.	170,500
32,700	ALLEGHENY POWER SYS INC	1,312,088
33,313	ALLEGIS CORP	2,977,349
25,250	ALLEN GROUP INC	397,688
28,140	ALLEN ORGAN CLASS B	886,410
27,100	ALLIED BANKSHARES INC.	243,900
55,500	ALLIED SUPERMARKETS INC.	568,875
123,950	ALLIED-SIGNAL INC.	5,407,319
24,000	ALLTEL CORP	660,000
27,000	ALLWASTE INC	232,875
61,900	ALUMINUM CO. OF AMERICA	3,303,913

NO. OF SHARES		MARKET VALUE
58,000	AMAX INC	\$ 1,196,250
58,000	AMDAHL CORP	2,037,250
76,100	AMERADA HESS CORP.	2,920,338
30,000	AMERICAN FRUCTOSE CL A	356,250
50,000	AMERICAN INTEGRITY CORP	331,250
39,050	AMERICAN STANDARD INC.	1,654,744
31,700	AMERICAN BANK INSURANCE G	423,988
8,000	AMERICAN BLDG MAINTENANC	200,000
1,000	AMERICAN CAP MGMT & RESH	18,500
10,000	AMERICAN CAPACITY GROUP I	100,000
71,600	AMERICAN CYANAMID	3,508,400
8,457	AMERICAN ECOLOGY	190,283
137,600	AMERICAN ELEC POWER INC	3,784,000
309,478	AMERICAN EXPRESS COMPANY	10,599,622
77,066	AMERICAN FAMILY CORP	1,001,858
93,100	AMERICAN GENERAL CORP	3,689,088
24,900	AMERICAN GREETINGS	647,400
77,500	AMERICAN HOIST & DERRICK	804,063
7,600	AMERICAN INCOME LIFE INS	90,250
103,840	AMERICAN INFORMATION	9,034,080
115,500	AMERICAN INTERNATIONAL GR	8,186,063
24,400	AMERICAN MAIZE PRODS CO	542,900
65,000	AMERICAN MEDICAL INTL.	1,243,125
19,200	AMERICAN NATL INS CO	672,000
13,200	AMERICAN PETROFINA INC.	768,900
10,000	AMERICAN PRESIDENT COS L	432,500
20,000	AMERICAN SHIP BLDG CO	132,500
33,300	AMERICAN SOFTWARE INC	499,500
22,352	AMERICAN STORES NEW	1,637,284
10,000	AMERICAN SVGS BK FSB	168,750
767,407	AMERICAN TEL & TEL NEW	21,199,618
76,600	AMERICAN TELEVISION &	1,915,000
9,000	AMERICAN WATER WORKS	160,875
29,600	AMERITRUST CORP	717,800
32,800	AMES DEPARTMENT STORES	779,000
24,900	AMETEK INC	806,138
30,200	AMFAC INC	992,825
183,000	AMOCO CORP	16,012,500
10,000	AMOSKEAG BK SHS INC	213,750
77,000	AMPCO RITHERPURCH CORR	4,514,125
15,000 48,200	AMPCO PITTSBURGH CORP.	230,625
	AMR CORP.	2,855,850
15,000 55,000	AMMEST INC. CROUD INC.	485,625 632,500
30,700	AMWEST INS GROUP INC	909,488
34,333	ANADARKO PETE CORP. ANALOG DEVICES INC	669,494
19,100	ANALOGIC CORP	202,938
191100	MANDOTC COAF	202,930

NO. OF SHARES			MARKET VALUE
23,000 12,000 12,000	ANCHOR HOCKING CORP. ANDOVER TOGS INC ANDREW CORP.	\$	690,000 73,500
10,000	ANTHEM ELECTRS INC		183,000 161,250
35,000	AOI COAL CO		126,875
51,800	AON CORP		1,333,850
58,000	APACHE CORP		623,500
2,800	APL CORP		20,650
84,000	APPLE COMPUTER		3,402,000
31,600	APPLIED CIRCUIT TECH.		31,600
60,000	APPLIED MATLS INC		1,185,000
142,803	ARCHER DANIELS MIDLAND C		3,498,674
100,000	ARCHIVE CORP		987 <b>,</b> 500
9,100	ARGONAUT GROUP INC		302,575
10,300	ARGOSYSTEMS INC		378,525
3,200	ARITECH CORP DEL		47,200
12,800	ARKANSAS BEST CORP		219,200
39,000	ARKLA INCORPORATED		940,875
39,000	ARMCO INC		390,000
49,600 15,000	ARMSTRONG IND. INC.		1,897,200
30,000	ARMTEK CORP ARNOX CORP		301,875 191,250
9,666	ARVIN INDS INC	•	343,143
12,175	ARX INC		126,316
15,000	ASA LTD		864,375
53,600	ASAMERA INC		515,900
28,700	ASARCO INC.		710,325
19,000	ASHLAND OIL INC		1,204,125
20,000	ASHTON TATE		490,000
30,000	ASK COMPUTER		371,250
10,000	ATALANTA SOSNOFF CAP CORP		120,000
17,000	ATLANTA GAS LT CO		395,250
28,000	ATLANTIC CITY ELEC CO		969,500
135,400	ATLANTIC RICHFIELD		12,896,850
11,200	ATWOOD OCEANICS INC		198,800
14,600	AUGAT INC		359,525
51,700	AUTOMATIC DATA PROCESSIN		2,468,675
9,400	AVALON ENERGY CORP		54,050
25,400	AVANTEK INC		403,225
23,400	AVERY INTL. CORP.		585,000
27,800	AVNET INC		913,925
59,900 34,000	AVON PRODS INC		2,021,625 429,000
24,000 14,200	AVX CORP.		488,125
30,750	AYDIN CORP. BAIRNCO CORP		1,199,250
83,120	BAKER HUGHES INC		1,890,980
11,000	BALL CORP		525,250
11,000	2112 CA1/1		323,230

NO. OF SHARES		MARKET VALUE
32,800	BALLY MFG CO	\$ 738,000
52,900	BALTIMORE GAS & ELEC CO	1,659,738
67 <b>,</b> 688	BANC ONE CORP	1,869,881
12,000	BANDAG INC	768,000
53,100	BANK BOSTON CORP	1,858,500
52,622	BANK NEW ENGLAND CORP	1,868,081
27 <b>,</b> 750	BANK OF NY CO. INC.	1,207,125
14,258	BANK SOUTH CORP	260,209
110,200	BANKAMERICA CORP.	1,267,300
3,900	BANKAMERICAN RLTY INVS	118,950
3,000	BANKERS FIRST CORP	36,000
57,400	BANKERS TRUST NY CORP.	2,927,400
20,700	BARD C.R. INC.	931,500
9,000	BARNES GROUP INC	320,625
43,350	BARNETT BKS FLA	1,603,950
20,000	BARRIS INDS INC	305,000
26,000	BARRY WRIGHT CORP	487,500
14,000	BASSETT FURNITURE INDS	567,000
46,400	BATTLE MTN GOLD CL A	1,386,200
23,900	BAUSCH & LOMB INC	1,015,750
172,705	BAXTER TRAVENOL LABS	4,209,684
36,000	BAYBANKS INC	1,548,000
35,700	BAYLY CORP.	401,625
81,915	BEAR STEARNS COS INC	1,392,555
19,500	BEAUTICONTROL COSMETICS I	146,250
28,000	BECOR WESTERN INC	420,000
34,100	BECTON DICKINSON CO	2,173,875
20,000 22,100	BEEBAS CREATIONS INC	300,000
141,520	BELL & HOWELL CO.	1,276,275
192,200	BELL ATLANTIC CORP. BELL CANADA ENTERPRISES I	9,641,050
5,000	BELL INDUSTRIES	6,078,325
339,120	BELL SOUTH CORP	114,375
15,700	BELO A H CORP	13,861,530
20,900	BENEFICIAL CORP.	1,024,425
26,250	BERGEN BRUNSWIG CORP.	1,199,138 630,000
3,900	BERKEY PHOTO INC	20,475
775	BERKSHIRE HATHAWAY INC D	2,712,500
17,200	BEST PRODUCTS	182,750
6,600	BETZ LABS INC	323,400
74,100	BEVERLY ENTERPRISES INC	1,092,975
5,200	BEVERLY INVT PPTYS INC	120,900
21,400	BIG B INC	291,575
63,825	BIG BEAR INC	1,627,538
15,000	BIG V SUPERMARKETS INC	301,875
25,000	BILDNER J & SONS INC	225,000
25,000	BIOTECH CAP CORP	287,500

NO. OF SHARES			MARKET VALUE
43,500	BLACK & DECKER MFG CO	\$	1,011,375
25,000	BLACK HILLS CORP		581,250
28,000	BLOCK H & R INC.		1,487,500
16,400	BLOUNT INC		262,400
5,950	BOATMEN'S BANCSHARES	•	229,075
50,875	BOB EVANS FARMS INC		1,246,438
110,325	BOEING COMPANY		5,171,484
21,300	BOISE CASCADE CORP		1,549,575
11,600	BOLAR PHARMACY		275,500
75,850	BORDEN INC.		4,551,000
64,100	BORG-WARNER		2,980,650
41,600	BOSTON EDISON CO		946,400
7,000	BRANCH CORP		252,000
42,600	BRASCAN LTD	•	1,107,600
8,600	BRIGGS & STRATTON CORP		337,550
203,164	BRISTOL-MYERS CO.	1	0,107,409
15,700	BROOKLYN UN GAS CO.		421,938
9,700	BROWN GROUP		414,675
16,000	BROWN TRANS INC		180,000
118,400	BROWNING FERRIS INDS INC		3,359,600
34,000	BRUNOS INC		654,500
74,000	BRUNSWICK CORP.		1,776,000
22,000 12,500	BRUSH WELLMAN INC		858,000
19,400	BSN CORP COM PAR .03 BURLINGTON IND	¥	185,938
55,000	BURLINGTON NORTHERN INC.		1,484,100 4,551,250
33,000	BURNDY CORP		561,000
5,000	BURNUP & SIMS INC		33,125
4,576	BURRITT MUT SVGS BK NEW		80,080
20,800	C3 INC		226,200
18,000	CABOT CORP		634,500
33,000	CALFED INC		1,150,875
60,000	CALGENE INC		675,000
14,081	CALLAHAN MNG CORP		387,228
20,000	CALMAT CO		600,000
34,300	CALNY FOOD SVCS INC	•	330,138
20,000	CAMBRIDGE BIOSCIENCE CORP		230,000
27,400	CAMERON IRON WORKS INC		595,950
50,000	CAMPBELL RED LAKES MINES		1,268,750
57,800	CAMPBELL SOUP CO		3,865,375
30,000	CANADIAN MARCONI CO		453,750
212,657	CANADIAN PACIFIC LTD		3,987,319
1,000	CANAL RANDOLPH LTD PARTNE		6,000
11,900	CAPITAL CITIES/ABC INC.		4,551,750
36,100	CAPITAL HOLDING CORP.		1,110,075
20,000	CAREERCOM CORP		177,500
81,000	CAREMARK		1,690,875

SHARES	MARKET VALUE
33,000 CARL KARCHER ENTERPRISES \$ 16,800 CARLISLE CORP	874,500 623,700
24,000 CAROLINA FREIGHT CORP	825,000
58,800 CAROLINA PWR & LT CO	2,190,300
6,400 CARPENTER TECHNOLOGY CORP	270,400
70,000 CARRIAGE INDS INC	481,250
21,500 CARSON PIRIE & CO.	1,048,125
16,600 CARTER HAWLEY HALE STORE	1,043,725
5,000 CARTER WALLACE INC	492,500
33,000 CARTERET SAVINGS BK F.A.	391 <b>,</b> 875
16,800 CASCADE NAT GAS CORP	270,900
67,400 CATERPILLAR INC.	3,605,900
8,250 CB & T BANKSHARES INC	177,375
12,000 CBI INDS INC	360,000
16,052 CBS INCORPORATED	2,817,126
2,000 CCB FINL CORP	80,500
16,500 CEN. BANKSHRS. SO.	288,750
41,835 CENERGY CORP	407,891
8,400 CENT HUDSON GAS & ELEC CO	222,600
21,000 CENTEL CORP.	1,388,625
100,780 CENTERIOR ENERGY CORP	1,738,455
12,000 CENTERE BANCORP	463,500
19,000 CENTEX CORP 67,400 CENTRAL & SO WEST CORP.	508,250
67,400 CENTRAL & SO WEST CORP. 12,758 CENTRAL BANCORP. INC DEL	2,114,675
39,900 CENTRAL BANCORP. INC DEL	494,353
5,900 CENTRAL IEE POB SVC CO 5,900 CENTRAL JERSEY BANCORP	917,700
24,000 CENTRAL LA ELEC CO	253,700
20,500 CENTRAL ME PWR CO	792,000
19,700 CENVILL INVS INC	361,313 408,775
31,400 CERTAIN TEED PRODS CORP	1,322,725
49,000 CETUS CORP	1,427,125
27,236 CF & I STL CORP	129,371
70,065 CHAMPION INTL.	2,548,614
10,600 CHAMPION SPARK PLUG CO	153,700
35,000 CHANTAL PHARMACEUTICAL CO	218,750
13,000 CHARLOTTE CHARLES INC	100,750
49,450 CHARMING SHOPPES INC	1,502,044
48,000 CHARTER MED CORP	1,470,000
66,600 CHASE MANHATTAN CORP.	2,747,250
15,700 CHATHAM MFG CO	573,050
21,000 CHEMED CORPORATION	847,875
48,635 CHEMICAL NEW YORK CORP	2,042,670
31,500 CHEMICAL NY CORP CL B	208,688
77,000 CHEMICAL WASTE MGMT INC	2,310,000
15,000 CHEROKEE GROUP	285,000
19,200 CHESAPEAKE CORP VA	828,000

NO. OF SHARES			MARKET VALUE
244,100 29,000 21,000 27,501	CHEVRON CORP CHI-CHIS INC CHIEFTAIN DEV LTD CHOCK FULL O NUTS CORP	\$	15,134,200 213,875 225,750 220,008
154,075 27,025	CHRYSLER CORP. CHUBB CORPORATION		5,257,809
56,400	CHURCHS FRIED CHICKEN		1,662,038 564,000
55,900	CIGNA CORPORATION		3,542,663
32,000 26,000	CILCORP INC CINCINNATI BELL INC		1,076,000 637,000
8,000	CINCINNATI FINL CORP		530,000
10,500	CINCINNATI MILACRON INC		332,063
27,600	CIPHER DATA PRODS INC		310,500
64,200 103,600	CIRCLE K CORP CITICORP	•	1,075,350 6,112,400
55,660	CITIZENS & SOUTHERN CORP.		1,537,608
12,000	CITIZENS FIRST BANCORP IN		291,000
53,606	CITIZENS UTILS DEL		1,634,995
39,100 6,800	CITY FED FIN'L CORP CLABIR CORP		327,463 50,150
34,400	CLARK EQUIP CO		907,300
87,300	CLEVELAND-CLIFFS INC		1,353,150
28,000	CLOROX CO.		920,500
2,100	CMS ENERGY CORP		38,850
47,500 52,700	CNA FINL CORP COACHMEN INDS INC		2,481,875 599,463
30,900	COASTAL CORP		1,073,775
36,300	COBE LABS INC		784,988
17,600	COCA COLA BOTTLING CO CO		611,600
313,300 107,200	COCA COLA COMPANY COCA COLA ENTERPRISES INC		13,941,850 2,063,600
7,000	COLEMAN CO. INC.		257,250
49,745	COLGATE PALMOLIVE		2,338,015
10,050	COLLAGEN CORP.		103,013
72,000	COLLINS FOODS INTL.		1,494,000
21,300 27,900	COLT INDS. INC NEW COLUMBIA GAS SYSTEM INC		284,888 1,398,488
18,600	COMAIR INC		167,400
25,100	COMBUSTION ENGINEERING		941,250
20,000	COMCAST CORP		470,000
10,000 36,000	COMCAST CORP CL A COMDATA NETWORK INC.		226,250 576,000
34,600	COMDISCO INC.		1,063,950
23,000	COMERICA INC		1,362,750
48,513	COMINCO LTD		594,284
11,200	COMMERCE CLEARING HOUSE		733,600 212,625
7,000	COMMERCE UN CORP		212,023

NO. OF SHARES		MARKET VALUE
34,666 141,236 9,600 22,900 15,000 37,333 27,000 60,000 4,792	COMMERCIAL METALS CO COMMONWEALTH EDISON CO. COMMUNICATIONS SATELLITE COMMUNITY PSYCHIATRIC CEN COMPAQ COMPUTER CORP COMPREHENSIVE CARE CORP COMPUGRAPHIC CORP COMPUTER ASSOC INTL INC COMPUTER CONSOLES	\$ 645,654 4,890,297 272,400 941,763 703,125 545,995 627,750 1,507,500 46,123
10,900 59,900 100,000 69,600	COMPUTER SCIENCES CORP. COMPUTER VISION CORP. COMSTOCK GROUP INC CONAGRA INC.	614,488 898,500 675,000 2,201,100
9,100 84,300 33,900 59,700	CONCURRENT COMPUTER CORP CONSOL. EDISON OF N.Y. CONSOL. FREIGHTWAYS INC. CONSOL. NAT. GAS	156,975 3,782,963 1,237,350 2,701,425
12,000 49,900 85,000 23,600	CONSOLIDATED PAPERS INC CONSOLIDATED RAIL CORP CONSUMER PLASTICS CORP CONSUMERS WTR CO	777,000 1,665,413 956,250 474,950
54,400 44,300 22,000 14,900	CONTEL CORP CONTINENTAL CORP CONTINENTAL INFORMATION S CONTROL DATA CORP.	1,727,200 1,949,200 261,250 426,513
14,000 201,000 44,000 48,781	CONTROL RESOURCE INDS INC CONVERGENT INC COOPER COS COOPER DEVELOPMENT CO.	297,500 1,381,875 654,500 60,976
30,300 37,000 7,200 32,586	COOPER INDS. INC. COOPER LASERSONICS INC COOPER TIRE & RUBBER CORESTATES FINL CORP	1,787,700 76,313 251,100 1,279,001
37,846 34,000 83,000 14,000	CORNING GLASS WORKS CORROON & BLACK CORP CPC INTL. INC. CPI CORP	2,422,157 1,015,750 4,523,500 344,750
53,000 2,400 39,390 22,400	CPT CORP. CRAIG CORP CRANE CO. CRAY RESEARCH INC	185,500 39,000 1,162,005 2,276,400
7,200 24,000 39,000 7,100	CRONUS INDS INC CROSS & TRECKER CROSS A T CO CROWN CORK & SEAL	116,100 471,000 1,296,750 830,700
10,400 116,600	CRYSTAL BRANDS INC CSX CORPORATION	223,600 4,066,425

NO. OF SHARES		MARKET VALUE
9,500 17,000 25,000 6,100 11,500	CUBIC CORP \$ CULLEN FROST BANKERS INC CULLINET SOFTWARE INC. CULLUM COS INC CUMMINS ENGINE CO.	192,375 195,500 290,625 191,388 1,037,875
3,500 35,000 22,830	CURTICE-BURNS FOODS INC. CYCARE SYS INC CYPRUS MINERALS CORP	125,563 306,250 536,505
20,000 37,000 24,150	D & N SVGS BK FSB HANCOCK DANA CORPORATION DANIEL INDS INC	280,000 1,748,250 262,631
2,800 4,900	DATA CARD CORP. DATA DESIGN LABS INC	34,650 34,913
20,100 30,700 55,000	DATA GENERAL CORP. DATA I O CORP DATA SWITCH CORP	620,588 276,300 364,375
2,900 62,200 10,000	DATAPOINT CORP DATAPRODUCTS CORP DAYCO CORP	18,850 699,750 348,750
78,800 73,700 22,400	DAYTON-HUDSON CORP. DE LUXE CHK PRINTERS INC DEAN FOODS CO	3,989,250 2,330,763 800,800
10,400 53,600 26,000	DECISION INDUSTRIES CORP. DEERE & COMPANY DEKALB CORP	104,000 1,520,900 627,250
35,500 47,400 37,600	DELCHAMPS INC DELMARVA PWR & LT CO DELTA AIR LINES INC.	772,125 953,925 2,105,600
19,000 19,000 109,000	DENISON MINES LTD A DENISON MINES LTD B DETROIT EDISON CO	135,375 111,625 1,771,250
5,100 43,500 35,300	DEVON GROUP INC NEW DEXTER CORP DI GIORGIO CORP	87,975 1,082,063 1,059,000
12,000 13,500 23,400	DIAL REIT INC DIAMOND BATHURST INC DIAMOND SHAMROCK R&M INC	234,000 337,500 383,175
10,150 92,400 35,400	DIGITAL COMM. ASSOC. DIGITAL EQUIPMENT CORP. DILLARD DEPT. STORES	329,875 15,142,050 1,681,500
107,600 20,000 10,000	DISNEY WALT CORP DIVERSIFIED ENERGIES INC DIXIE YARNS INC	7,774,100 470,000 307,500 496,800
41,400 14,000 63,200 14,900	DOLLAR GEN CORP DOMINION BANKSHARES CORP DOMINION RESOURCES DONALDSON INC	278,250 2,733,400 536,400

NO. OF SHARES			MARKET VALUE
55,600 28,600 136,200	DONNELLEY RR & SONS DOVER CORP. DOW CHEMICAL COMPANY	\$	2,175,350 1,926,925 11,730,225
75,000 19,800	DOW JONES & CO DOWNEY SAVINGS & LN ASSN		3,843,750
35,600	DPL INC.		361,350 925,600
10,000	DRESHER INC		111,250
58,500	DRESSER INDUSTRIES		1,828,125
41,000	DREYERS GRAND ICE CREAM I		830,250
42,800 170,680	DREYFUS CORP. DU PONT EI DENEMOURS		1,401,700
70,800	DUKE POWER CO. NC		20,481,600 3,159,450
108,200	DUN & BRADSTREET COS INC		6,843,650
5,000	DUNKIN DOUGHNUT INC.		143,750
50,600	DUQUESNE LT CO	•	607,200
18,000	DURAKON INDS INC		211,500
18,451	DURO TEST CORP		232,944
8,725	DURR FILLAUER MED INC		104,700
7,300 21,600	DYNATECH CORP E-SYSTEMS		222,650
29,300	E.F. HUTTON GP. INC.		704,700 1,117,063
12,700	EAGLE PICHER INDS INC		536,575
15,000	EASCO HAND TOOLS INC		146,250
26,000	EASTERN GAS & FUEL ASSN		708,500
160,600	EASTMAN KODAK CO.	•	13,831,675
22,300	EATON CORP.		2,062,750
10,000	EATON FINL CORP		107,500
26,400	ECHLIN INC.		462,000
26,700 7,400	ECHO BAY MINES LTD		944,513
14,000	EDISON BROS STORES INC EDO CORP		271,950
12,800	EG & G INC		215,250 441,600
57,000	EL PASO ELEC CO		969,000
13,000	ELBIT COMPUTERS INC		117,000
23,000	ELECTRO BIOLOGY INC		106,375
13,100	ELECTRO NUCLEONICS INC		145,738
10,000	ELECTROSPACE SYSTEMS		<b>267,</b> 500
40,000	EMC INS GROUP INC		410,000
51,666 22,000	EMERSON ELECTRIC EMERY AIR FREIGHT CORP.		5,605,761
22,000	EMERI AIR FREIGHT CORP.		360,250 984,500
30,200	EMULEX CORP		230,275
37,800	ENGLEHARD CORP	•	973,350
14,400	ENNIS BUSINESS FORMS INC		360,000
26,300	ENRON CORP.		1,219,663
45,000	ENSERCH CORP.		1,096,875
29,500	ENTERRA CORP		287,625

NO. OF SHARES			MARKET VALUE
36,000 10,000	ENTEX ENVIRONMENTAL SYS CO	\$	531,000 190,000
34,800	ENZO BIOCHEM INC		321,900
100,000	EPSILON DATA MGMT INC		1,000,000
96,700	EQUATORIAL COMMUNICATIONS		314,275
8,400	EQUITABLE BANCORP		214,200
21,000	EQUITABLE RES INC		892,500
4,200	EQUITEC FINL GROUP INC		32,550
23,000	ESTERLINE CORP		388,125
89,800	ETHYL CORP.		2,402,150
39,400	EVANS & SUTHERLAND COMPU		1,280,500
15,000	EVANS INC		127,500
70,000	EXCHANGE INTL CORP		997,500
515,600	EXXON CORPORATION		48,079,700
20,000	FAIRFIELD COMMUNITY INC.		135,000
50,000	FALCONBRIDGE LTD		793 <b>,</b> 750
25,500	FAMILY DLR STORES INC		446,250
65,700	FARM FRESH INC		771,975
71,778	FARM HOUSE FOODS CORP		318,515
49,000	FARMERS GROUP INC.		2,205,000
11,700	FAYS DRUG INC		102,375
42,000	FEDERAL CO		1,879,500
42,100	FEDERAL EXPRESS CORP.		2,831,225
61,800	FEDERAL NATL MORTGAGE ASS		2,402,475
32,000	FEDERAL PAPER BRD INC	,	1,280,000
17,000	FEDERAL-MOGUL CORP		765,000
66,400	FEDERATED DEPT. STORES		3,469,400
10,000	FERRO CORP		535,000
26,000	FIDELCOR		955,500
6,000	FIFTH THIRD BANCORP		321,000
51,000	FIREMANS FD CORP		1,836,000
27,400	FIRESTONE TIRE & RUBR CO		1,140,525
72,000	FIRST ALA BANCSHARES INC		1,584,000
17,500	FIRST AM. CORP TENN.		490,000
18,700	FIRST AMERN BK & TR PALM		147,263 126,563
7,500	FIRST AMERN SVGS F A ABIN		
49,400	FIRST BANK SYSTEM		1,667,250 874,650
19,600	FIRST BOSTON INC FIRST CHICAGO CORP		1,398,300
47,400			91,875
35,000 6,600	FIRST CITY BANKCORP TEXAS FIRST EASTN CORP PA		168,300
57,500	FIRST EXECUTIVE CORP DEL		984,688
37,200	FIRST FED MICH DETROIT		837,000
21,400	FIRST FIDELITY BANCORP		920,200
17,100	FIRST FINL CORP WIC		316,350
30,000	FIRST FINL MGMT CORP		772,500
10,000	FIRST FLA BKS INC.		310,000
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NO. OF SHARES			MARKET VALUE
36,100	FIRST INTERST. BANCORP	\$	2,156,975
7,000	FIRST JERSEY NAT'L. CO.	•	388,500
40,275	FIRST KY NATL CORP		976,669
10,900	FIRST NATL CINCINNATI COR		430,550
30,000	FIRST PA CORP		288,750
1,050	FIRST REPUBLICBANK ADJ.		101,194
5,250	FIRST REPUBLICBANK CL A		122,719
21,050	FIRST REPUBLICBANK CORP		489,413
29,000	FIRST SEC CORP DEL		775,750
39,300	FIRST TENN NATL CORP		1,188,825
84 <b>,</b> 780	FIRST UNION CORP		2,151,293
38,100	FIRST WACHOVIA CORP		1,538,288
10,000	FIRST WIS CORP		261,250
8,000	FISCHBACH CORP		175,000
6,500	FISHER FOODS INC		77,188
5,627	FISHER SCIENTIFIC GROUP I		92,851
32,000	FLEET FINANCIAL GRP INC		876,000
28,300	FLEETWOOD ENTER. INC.		725,188
16,400	FLEMING COS.		670,350
34,500	FLIGHTSAFETY INTL INC		1,129,875
13,400	FLOATING POINT SYS INC		125,625
55,000	FLORIDA EXPRESS INC		<b>254,</b> 375
31,300	FLORIDA FED. S & L		461,675
57,000	FLORIDA NATL BKS FLA INC		1,225,500
33,800	FLORIDA PROGRESS CORP		1,212,575
9,200	FLORIDA ROCK & TANK LINES		108,100
10,000	FLORIDA ROCK INDS.		257 <b>,</b> 500
52,500	FLOWERS INDUSTRIES		1,424,063
15,765	FLUKE JOHN MFG.		457 <b>,</b> 185
47,700	FLUOR CORP		840,713
25,000	FMC CORP NEW		859 <b>,</b> 375
15,000	FMC GOLD CO		211,875
77,500	FOOD LION CORP		1,278,750
47,400	FOOD LION INC CL A		734,700
172,675	FORD MOTOR CO.		17,094,825
29,922	FOREST OIL CORP		418,911
56,200	FORT HOWARD PAPER CO.		3,013,725
23,000	FORTUNE FINL GROUP INC		615,250
22,600	FOSTER WHEELER CORP		457,650
19,000	FOXBORO CO		584,250
91,500	FPL GROUP INC.		2,882,250
1,333	FREEPORT MCMORAN ENERGY		20,167
3,149	FREEPORT MCMORAN GOLD CO		48,411
667	FREEPORT MCMORAN RESOURCE		11,917
80,000	FREEPORT-MCMORAN INC		1,960,000
34,000	FREMONT GEN CORP		531,250
6,240	FRISCHS RESTAURANTS INC		188 <b>,</b> 760

NO. OF SHARES			MARKET VALUE
5,500 3,500 14,200	FRUEHAUF CORP DEL CL B FUDDRUCKERS INC FUQUA INDS INC	\$	35,750 7,000 504,100
25,100	GAF CORP		1,336,575
124,000	GANNETT INC.		6,324,000
14,800	GAP INC		1,002,700
27,100	GATX		1,100,938
1,300	GEARHART INDS INC		4,063
12,300	GEICO CORP.		1,649,738
16,500	GELCO CORP RIGHTS		825
16,500	GELCO CORPORATION GELMAN SCIENCES INC		369,188
11,700 15,924	GENCORP		169,650 1,640,172
57,800	GENECKI GENENTECH INC		2,312,000
20,800	GENERAL CINEMA CORP	•	1,094,600
14,920	GENERAL COMMUNIC CL A		23,215
63,300	GENERAL DATACOMM INDS INC		617,175
30,000	GENERAL DEVELOPMENT CORP		513,750
33,500	GENERAL DYNAMICS		2,236,125
660,000	GENERAL ELECTRIC CO.		35,887,500
70,137	GENERAL HOST CORP		981,918
23,800	GENERAL INSTRUMENT CORP		886,550
84,800	GENERAL MILLS INC.		4,717,000
44,820	GENERAL MOTORS (H)		2,207,385
45,860 230,400	GENERAL MOTORS CORP CL E GENERAL MOTORS CORP.		1,754,145
57,000	GENERAL MOTORS CORP. GENERAL NUTRITION INC.		19,036,800 334,875
44,700	GENERAL PUBLIC UTILITIES		1,156,613
74,800	GENERAL RE CORP.		4,057,900
23,400	GENERAL SIGNAL CORP.		1,152,450
89,550	GENRAD INC.		1,130,569
57,750	GENUINE PARTS CO.		2,143,969
56,800	GEORGE A HORMEL & CO		1,306,400
83,700	GEORGIA PACIFIC CORP.		3,672,338
26,050	GERBER PRODS CO		1,276,450
8,000	GIANT FOODS INC		268,000
15,000	GIANT YELLOWKNIFE MINES L		241,875
87,400	GILLETTE COMPANY		3,332,125
4,500	GLEASON CORP		78,188 525,350
15,800 49,333	GODFREY COMPANY GOLDEN ENTERPRISES		616,663
31,500	GOLDEN ENTERFRISES GOLDEN WEST FIN'L		1,126,125
17,500	GOODMARK FOODS INC		275,625
8,900	GOODRICH (B.F.)		457,238
40,200	GOODYEAR TIRE & RUBBER		2,723,550
38,400	GOULD INC.		772,800
35,000	GOULDS PUMPS INC		700,000

NO. OF SHARES			MARKET VALUE
15,000 85,250 29,100 20,600 13,900	GR. AMER. FIRST SVGS BK S GR. WESTERN FIN'L GRACE W R & CO GRAINGER W W INC GRAND AUTO INC	\$	286,875 1,736,969 1,869,675 1,102,100 231,088
12,900 16,200 5,500	GRANDVIEW RES INC GREAT ATLANTIC & PAC TEA GREAT CTRY BK ANSONIA CON		108,844 627,750 97,625
7,000 36,400 19,500 12,575	GREAT LAKES CHEMICAL CORP GREAT NORTHN NEKOOSA CORP GREAT WESTN. SVGS BK BELL GREENMAN BROS INC		406,875 1,528,800 160,875 127,322
30,400 33,200 58,434 11,687	GREENTREE ACCEPT. INC. GREYHOUND CORP. GROW CHEM CORP GROW VENTURES CORP	·	805,600 1,352,900 620,861 10,226
78,900 24,600 237,800 6,250	GRUBB & ELLIS CO GRUMMAN CORP. GTE CORP. GUILFORD MILLS	·	483,263 630,375 9,155,300 203,125
49,300 100,800 106,800 13,800	GULF & WESTERN INDUS. GULF BROADCASTING CO LIQ GULF CDA CORP GULF RES & CHEM CORP		4,190,500 12,600 2,349,600 219,075
63,200 25,000 29,500 91,700	GULF STS UTILS CO GULL INC HALL FRANK B & CO INC HALLIBURTON INC.		497,700 368,750 383,500
44,000 8,833 38,000	HAMILTON OIL CORP HANCOCK FABRICS INC HANDY & HARMAN		3,484,600 929,500 164,521 940,500
3,750 18,000 25,300 34,600	HANDYMAN CORP HANNAFORD BROS CO HANOVER INS. CO HARCOURT BRACE JOVAN.		169,219 945,000 822,250 2,058,700
48,200 11,250 30,900 20,900	HARLAND JOHN H CO HARPER GROUP HARRIS CORP. HARSCO CORP		1,331,525 149,063 1,108,538 700,150
26,250 31,500 18,200 10,500	HARTFORD NATL CORP HARTMARX CORP HASBRO INC. HAVERTY FURNITURE CO		774,375 917,438 452,725 173,250
10,500 19,800 13,000 30,000	HAVERTY FURNITURE COS INC HAWAIIAN ELEC INDS INC HB FULLER CO HBO & CO		170,625 571,725 529,750 371,250

NO. OF SHARES		MARKET VALUE
10,600 25,000 117,800 25,000 78,837 40,800 85,300 182,100	HEALTH CARE PPTY INVS INC HECLA INC. HEINZ H.J. & CO. HELMERICH & PAYNE INC HENLEY GROUP INC HERCULES INC. HERSHEY FOODS CORP HEWLETT PACKARD CO.	\$ 294,150 468,750 5,713,300 784,375 2,020,198 2,580,600 2,388,400 11,130,863
20,000 42,500 24,000 43,200 22,200 30,000	HICKAM DOW B INC HILLENBRAND INDS INC HILTON HOTELS CORP HIMONT INC HM FED S & L ASSN. S.D. HOGAN SYSTEMS	265,000 1,227,188 2,133,000 1,922,400 682,650 397,500
24,200 37,267 1 4,700 6,695 16,000	HOLIDAY CORP HOLLY CORP HOLLY CORP (NEW) HOLLY SUGAR CORP HOLMES D.H. & CO. HOME DEPOT INC.	589,875 559,005 8 477,050 140,595 540,000
55,500 66,000 52,250 38,400 1,500 72,900	HOME GROUP INC HOME SHOPPING NETWORK INC HOMESTAKE MNG CO HONEYWELL INC. HORIZON BANCORP HOSPITAL CORP. OF AMER.	1,096,125 1,221,000 1,867,938 3,168,000 91,875 3,380,738
8,000 7,000 42,400 80,600 20,600 23,200	HOUGHTON MIFFLIN CO. HOUSE OF FABRICS INC. HOUSEHOLD INTL. HOUSTON INDUSTRIES INC. HOWARD SVGS BK LIVINGSTON HRE PROPERTIES	315,000 116,375 2,247,200 2,679,950 445,475 533,600
17,500 45,400 72,340 11,000 23,400 85,872	HUBBELL INC. HUDSON FOODS INC HUMANA INC. HUNTINGTON BANCSHARES INC I C H I C INDUSTRIES	665,000 817,200 1,862,755 288,750 315,900 2,855,244
44,800 35,300 5,672 30,800 51,300 45,400 6,060 126,200 88,900	I M S INTL INC IDAHO PWR CO IDC SVCS INC IE INDS INC ILLINOIS POWER CORP ILLINOIS TOOL WORKS INC IMO DELAVAL INC IMPERIAL OIL CO. LTD. INCO INC.	1,366,400 864,850 69,482 735,350 1,378,688 1,781,950 170,438 6,925,225 1,522,413

NO. OF SHARES			MARKET VALUE
8,250 20,000	INDIANA NATL CORP INFINITY BROADCASTING COR	\$	323,813 435,000
15,000	INGERSOLL RAND		1,181,250
19,100	INGREDIENT TECHNOLOGY COR		403,488
30,500	INLAND STEEL IND. INC.		800,625
22,575	INSILCO CORP.		530,513
15,000	INT'L TECHNOLOGY CORP.		223,125
30,000	INTEGRATED RESOURCES INC.		772,500
83,800	INTEL CORP.		3,687,200
35,000	INTELLIGENT SYS CORP		249,375
20,900	INTELOGIC TRACE INC		122,788
42,100	INTERCO		1,910,288
43,300	INTERGRAPH CORP.		974,250
10,800	INTERLAKE INC	·	449,550
1,116 19,000	INTERNATIONAL CAP EQUIP.		2,232
20,000	INTERNATIONAL CTLS CORP		831,250
44,000	INTERNATIONAL GAME TECHN		262,500
31,350	INTERPUBLIC GROUP		1,595,000
11,000	INTERSTATE BAKERIES CORP INTERSTATE PWR CO		905,231
7,270			262,625
19,200	INTERTAN INC INTL MINERALS & CHEM.		127,225
39,000			801,600
435,963	INTL MULTIFOODS CORP INTL. BUSINESS MACHINES		1,150,500
26,300	INTL. BUSINESS MACHINES INTL. FLAVORS & FRAG.		70,843,988
74,000	INTL. PAPER CO.		1,278,838
10,000	IONICS INC		3,589,000
26,000	IONICS INC IOWA ILL GAS & ELEC CO		153,750
48,000	IOWA RESOURSES INC.		1,095,250
6,000	IOWA SOUTHN INC		1,068,000
44,000	IPALCO ENTERPRISES		181,500
28,000	IRVING BK CORP		1,034,000 1,295,000
72,100	ISC SYS CORP	•	
117,600	ITT CORP		639,888 6,909,000
9,800	IU INTL CORP		181,300
67,386	JAMES RIV CORP VA		2,257,431
14,000	JAMESWAY CORP.		185,500
30,000	JB'S RESTAURANTS		180,000
36,750	JEFFERSON PILOT CORP.		1,176,000
44,500	JEFFRIES GROUP		623,000
50,400	JERRICO INC		1,083,600
10,100	JIFFY LUBE INTL INC		151,500
122,800	JOHNSON & JOHNSON		11,282,250
16,380	JOHNSON CONTROLS		593,775
82,000	JONES INTERCABLE INC CL A		1,158,250
8,000	JORGENSEN EARLE M CO DEL		214,000
72,000	JOSTENS INC		1,638,000

29,750 JOY TECHNOLOGIES PFD. \$ 573,75 10,000 JUSTIN INDS INC 138,75 24,750 JWT GROUP INC. 1,364,35 147,450 K MART CORPORATION 6,229,76 16,700 K N ENERGY INC. 313,15 17,200 KAISER TECH LTD 309,66 54,000 KANEB SERVICES 155,25 35,000 KANSAS CITY PWR & LT CO 914,35 6,100 KANSAS CITY SO. IND. 358,35 32,800 KANSAS PWR & LT CO 840,56	r E
20,000       KASLER CORP.       175,00         13,500       KATY INDS INC       214,3         40,500       KAUFMAN & BROAD INC       916,3         54,000       KAYDON CORP       1,613,2         87,800       KELLOGG CO       5,739,9         39,235       KEMPER CORP.       1,206,4         19,000       KENNAMETAL INC       586,6         9,900       KENNER PARKER TOYS INC       316,8         8,700       KENTUCKY CENT LIFE INS C       131,5         58,000       KENTUCKY UTILS CO       1,131,0         8,800       KERR GLASS MFG CORP       123,2         37,000       KERR MCGEE CORP.       1,359,7         18,922       KEYSTONE INTL INC       392,6         19,500       KIDDE INC.       940,8	E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
67,600 KIMBERLY CLARK CORP 3,709,5 30,000 KINCAID FURNITURE INC 300,00	50
14,666 KINDER CARE LEARNING CTR. 251,1 39,300 KLA INSTRS CORP 805,6	55
43,000 KLM ROYAL DUTCH AIR 1,064,2	50
49,700 KNIGHT RIDDER INC. 2,621,6 10,000 KNOGO CORP 248,7	
10,000 KNOGO CORP 248,7 9,400 KOPPERS INC 379,5	
129,100 KRAFT INC. 7,762,1	
68,000 KROGER COMPANY 2,499,0	
4,000 KRUEGER WA CO. 47,5	
40,000 KV PHARMACEUTICAL INC 650,0	
25,000 LA QUINTA MOTOR INNS INC. 343,7	
7,000 LA Z BOY CHAIR CO 588,0	
14,000 LAIDLAW INDUSTRIES 329,0 15,000 LANCASTER COLONY CORP 296,2	
15,000 LANCASTER COLONY CORP 296,2 33,333 LANCE INC. 1,458,3	
30,000 LANCER CORP TEX 225,0	
15,500 LAND OF LINCOLN SVGS & LN 228,6	
13,500 LAWSON PRODS INC 391,5	
48,000 LAWTER INTL INC 768,0	
28,100 LEE DATA CORP. 182,6	
5,000 LIBERTY CORP S C 196,8	

NO. OF SHARES			MARKET VALUE
30,000 98,900 134,200 56,000 25,000	LIEBERMAN ENTERPRISES LILLY ELI & CO LIMITED INC. LIN BROADCAST. CORP. LINCOLN FOOD SERVICE PROD	\$	592,500 9,284,238 5,820,925 2,331,000
30,000 30,000	LINCOLN NATL CORP IND LIPOSOME INC		212,500 1,537,500 187,500
18,400 66,600	LITTON INDS INC. LIZ CLAIBORNE INC.		1,681,300 2,314,350
51,070 19,000 57,950	LOCKHEED AIRCRAFT CORP LOCTITE CORP LOEWS CORP		2,636,489 1,173,250
39,000 25,000	LOMAS & NETTLETON FINL LONE STAR INDUSTRIES		3,795,725 1,096,875 909,375
30,300 26,000	LONE STAR TECH LONG DRUG STORES INC		568,125 919,750
15,200 8,285 14,300	LORAL CORP LORIMAR TELEPICTURES CORP LOUISIANA LD & EXPL CO		613,700 128,418 546,975
20,861 28,000	LOUISIANA PAC. CORP. LOUISVILLE GAS ELEC CO		649,299 997,500
35,200 75,000 36,000	LOWES COMPANY LSI LOGIC CORP. LTX CORP		959,200 768,750
28,400 26,500	LUBRIZOL CORP LUCKY STORES	•	585,000 1,111,150 804,938
19,300 3,400	LUKENS STL CO LUMEX INC		709,275 51,000
31,800 45,100 32,400	M/A COM MACHINE TECHNOLOGY MACK TRUCKS INC.		437,250 186,038 627,750
74,700 13,900	MACMILLAN BLOEDEL LTD MACMILLAN INC.		1,503,338 906,975
24,600 23,000 38,500	MAGMA COPPER CO NEW CL B MANITOWOC INC MANOR CARE INC		162,975 471,500
11,480 10,000	MANPOWER INC MANUFACTURERS NATL CORP		712,250 628,530 440,000
11,200 33,000	MAPCO INC MARINE MIDLAND BANKS INC		613,200 1,955,250
118,000 100,300 52,600	MARION LABS INC MARRIOTT CORP. MARSH & MCCLENNAN		4,248,000 3,924,238 3,267,775
1,800 33,800	MARSHALL & ILSLEY CORP MARSHALL INDUSTRIES		54,450 422,500
42,100 106,300	MARTIN MARIETTA MASCO CORP		1,947,125 3,760,363

NO. OF SHARES		MARKET VALUE
52,300 9,992	MASCO INDS MATERIAL SCIENCES CORP	\$ 941,400 222,322
5,000	MATH APPLICATION GP.	9,375
39,062	MATRIX CORP N J	405,268
10,600	MATRIX SCIENCE CORP.	193,450
93,600	MAXUS ENERGY CORP	1,275,300
118,152	MAY DEPT. STORES CO.	5,612,220
42,636	MAYTAG CO.	2,275,697
66,850	MCA INC.	3,242,225
12,000	MCCORMICK & CO INC	564,000
16,400	MCDERMOTT INTL INC	489,950
5,400	MCDONALD & CO INVTS INC	50,625
135,843	MCDONALDS CORP.	7,199,679
29,900	MCDONNELL DOUGLAS CORP.	2,078,050
32,000	MCFARLAND ENERGY INC	424,000
43,900	MCGRAW HILL INC.	3,012,638
218,600	MCI COMMUNICATION	1,639,500
8,000	MCINTYRE MINES LTD	256,000
34,400	MCKESSON CORP	1,161,000
13,100	MCO HOLDINGS INC	198,138
55,850	MCORP	516,613
13,400	MDU RESOURCES GROUP	289,775
40,600	MEAD CORP.	1,355,025
9,400	MEASUREX CORP	256,150
44,000	MEDIA GEN INC	1,710,500
3,800	MEDIQ INC	26,125
10,000	MEDTRONIC INC.	935,000
101,300	MEI DIVERSIFIED INC.	797,738
22,100	MELLON BANK CORP	787,313
36,200	MELRIDGE INC.	352,950 3,008,375
41,000	MELVILLE CORPORATION MENTOR GRAPHICS CORP.	3,008,375 993,650
33,400	MERCANTILE STORES INC	1,326,875
27,500 22,500	MERCANTILE STORES INC MERCANTILE BANCORPORATION	573,750
3,148	MERCANTILE BANKSHARES COR	129,068
97,000	MERCK & COMPANY INC.	16,538,500
20,800	MEREDITH CORP	761,800
66,000	MERIDIAN BANCORP INC	1,410,750
25,000	MERRILL CORP	368,750
83,800	MERRILL LYNCH & CO. INC.	2,922,525
3,000	METRO AIRLS INC	25,125
41,200	MFRS. HANOVER CORP.	1,838,550
33,700	MGMT. SCIENCE AMER.	408,613
200	MGT. ASSIST. INC LIQUID.	375
5,000	MICHIGAN NATL CORP	208,750
4,800	MICKELBERRY CORP	24,000
4,100	MICOM SYS INC	52,275
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NO. OF SHARES		MARKET VALUE
24,300 19,500 30,000 29,296 24,600 20,000 50,000	MICRO D INC MICROSOFT CORP MID SOUTH INS CO MIDLANTIC CORP MILLER HERMAN INC. MILLIPORE CORP. MILTOPE GROUP INC	\$ 230,850 1,989,000 525,000 1,373,250 568,875 802,500 537,500
13,000 38,800 162,400	MILWAUKEE INS GROUP INC MINISCRIBE	169,000 640,200
32,000 33,900 47,000 31,400	MINNESOTA MNG & MFG CO MINNETONKA CORP MITCHELL ENERGY MITEL CORP MNC FINANCIAL INC	11,510,100 540,000 487,313 217,375 1,432,625
290,900 37,000 17,250 17,000	MOBIL CORPORATION MOLECULAR GENETICS INC MOLEX INC MONARCH CAPITAL CORP.	14,799,538 268,250 737,438 1,156,000
62,000 60,700 25,000	MONOLITHIC MEMORIES INC MONSANTO CO. MONTANA PWR CO	992,000 5,076,038 890,625
83,300 7,250 10,000	MOORE CORP LTD MOORE FINL GROUP INC IDAH MOORE MCCORMACK RES INC	2,124,150 207,531 247,500
135,400 19,100 10,000 20,200	MORGAN J P & COMPANY INC. MORGAN STANLEY GROUP INC MORRISON INC MORRISON KNUDSEN CORP	6,482,275 1,382,363 305,000 992,325
39,400 91,200 15,000	MORTON THIOKOL MOTOROLA INC. MSI DATA CORP	1,753,300 4,936,200 270,000
10,000 10,440 14,300 22,500	MULTIBANK FINL CORP MULTIMEDIA INC. NEW MUNFORD INC. MURPHY OIL	206,250 613,350 357,500 824,063
47,250 38,900 13,000 13,000	MYLAN LABS INC N.W. NATL. LIFE NAC RE CORP NACCO INDS INC	702,844 1,064,888 325,000 321,750
26,000 2,904 30,000 13,550	NACCO INDS INC CL A NAFCO FINANCIAL GP NALCO CHEMICAL CO. NATIONAL BANKSHARES CORP.	643,500 46,464 1,072,500 103,319
8,000 40,500 22,450 27,100	NATIONAL BUSINESS SYS INC NATIONAL CITY CORP NATIONAL CONVENIENCE STOR NATIONAL DATA CORP	115,000 1,402,313 221,694 582,650

NO. OF SHARES			MARKET VALUE
26,800 20,000 20,300 31,500	NATIONAL DISTILLERS & CHE NATIONAL EDUCATION CORP NATIONAL INTERGROUP INC NATIONAL LN BK HOUSTON TE	<b>\$</b>	1,819,050 495,000 329,875 82,688
3,600	NATIONAL STANDARD CO		38,700
39,300	NATIONAL SVC INDS INC		977,588
16,300	NATL PATENT DEVEL CORP		248,575
50,075	NATL. MEDICAL ENTER. INC.		1,370,803
64,300	NATL. SEMICONDUCTOR		835,900
45,000	NBD BANCORP INC		1,659,375
18,000	NBI INC		216,000
67,600	NCNB CORP.		1,749,150
81,200	NCR CORP.	•	6,049,400
10,000	NELSON THOMAS INC		73,750
25,575	NETWORK SYSTEMS CORP.		252,553
13,000	NETWORK USA		203,125
52,000	NEVADA PWR CO		1,014,000
41,000	NEW ENGLAND BUS SVC INC		912,250
30,638	NEW ENGLAND ELEC SYS		827,226
14,000	NEW JERSEY RES CORP		294,000
10,300	NEW PROCESS CO		275,525
38,700	NEW YORK ST ELEC & GAS C		1,064,250
71,000	NEW YORK TIMES CO		3,337,000
42,000	NEWHALL LD & FARMING CO C		1,375,500
75,000	NEWMONT GOLD CO		2,081,250
49,200	NEWMONT MINING		2,318,550
15,000	NEWPORT CORP		176,250
93,500	NIAGARA MOHAWK PWR CORP		1,554,438
21,100	NICOR INC		569,700
46,000	NIKE INC.		776,250
17,500	NL INDUSTRIES		146,563
23,400	NO. AMERICAN PHILIPS CORP		1,000,350
43,088	NO. STS. POWER CO. MINN.	•	1,357,272
22,000	NOBEL INS LTD		297,000
33,500	NOBLE AFFILIATES INC		556,938 83,717
12,289	NOBLE DRILLING CORP		2,044,000
29,200	NORDSTROM INC		4,900,500
148,500	NORFOLK SOUTHERN CORP		1,237,950
37,800	NORSTAR BANCORP		407,000
22,000 80,000	NORTH SIDE SVGS BK BRONX NORTHEAST UTILITIES		1,830,000
46,100	NORTHERN IND PUB SVC CO		541,675
169,700	NORTHERN TELECOM LTD.		3,606,125
2,000	NORTHERN TRUST CORP		90,250
33,500	NORTHERN TRUST CORP		1,381,875
12,500	NORTHWEST NAT GAS CO		281,250
15,000	NORTHWEST NAT GAS CO		298,125
20,000	பாக்சிக்கை 11 ஆம் 1 மூக்கியி சச்சியன் மூர் பாக்11 ல்ல ம். மோமா மா		

NO. OF		MARKET
SHARES		VALUE
11,000	NORTON CO	<b>A</b> 500 750
		\$ 508,750
33,700	NORWEST CORP.	1,432,250
85,000	NOVA PHARMACEUTICAL CORP	1,147,500
33,400	NOVAR ELECTRONICS	233,800
10,000	NOVELL INC	197,500
28,000	NOXELL CORP	1,645,000
15,800	NUCOR CORP	628,050
18,144	NWA INC.	1,270,080
153,420	NYNEX	10,758,578
3,416	OAKWOOD HOMES CORP	44,408
141,949	OCCIDENTAL PETE CORP	5,340,831
25,000	OCCUPATIONAL URGENT CARE	287,500
39,000	OCEAN DRILLING & EXPL CO	1,043,250
24,000	OGDEN CORP.	1,614,000
25,000	OHIO CAS CORP	1,106,250
98,000	OHIO EDISON CO	2,094,750
19,000	OHIO MATTRESS CO.	427,500
33,000	OKLAHOMA GAS & ELEC CO	1,089,000
8,850	OLD KENT FINL CORP	201,338
17,250	OLD REP INTL CORP	528,281
6,500	OLIN CORP	342,875
25,000	OMNICARE INC	228,125
21,156	OMNICOM GROUP INC.	515,678
24,000	ONEOK INC	828,000
20,000	OPTICAL COATING LAB	365,000
24,900	OPTICAL RADIATION CORP	622,500
8,100	ORANGE & ROCKLAND UTILS I	261,225
73,600	ORIENT EXPRESS HOTELS INC	285,200
1,400	OSHKOSH B GOSH INC CL B	
26,600	OUTBOARD MARINE CORP	102,900
34,800	OVERSEAS SHIPHOLDING GROU	894,425
8,000	OWENS & MINOR INC	870,000
26,700	OWENS CORNING FIBERGLAS (	156,000
46,500	OXFORD INDS INC	620,775
		767,250
11,000 256,400	PACCAR INC	759,000
	PACIFIC GAS & ELEC. CO.	5,160,050
43,340	PACIFIC LTG CORP	2,378,283
10,000	PACIFIC SCIENTIFIC CO	180,000
306,040	PACIFIC TELESIS GP.	8,110,060
48,900	PACIFICORP	1,754,288
10,000	PACO PHARMACEUTICAL SVCS	168,750
18,375	PAINE WEBBER	571,922
23,000	PALL CORP	669,875
30,700	PANHANDLE EASTN CORP	959,375
66,000	PANSOPHIC SYS INC	1,287,000
40,000	PAR TECHNOLOGY	480,000
49,980	PARADYNE CORP	337,365

35,000 PARK OHIO INDS INC OHIO \$ 245,000 90,000 PARKER DRILLING CO 697,500 27,250 PARKER HANNIFIN CORP 899,250 20,000 PARKWAY CO 422,500 49,000 PAUL HARRIS STORES INC 1,237,250 12,100 PAY N PAK STORES INC 372,508 30,000 PAYLESS CASHWAYS 697,500 29,500 PENN CENT CORP 1,707,313 118,700 PENNEY J.C. INC. 6,231,750 54,000 PENNSYLVANIA PWR & LT CO 1,944,000 13,400 PENNSYLVANIA PWR & LT CO 1,944,000 33,800 PENNEOIL CO. 2,543,450 35,750 PENNEOIL CO. 2,543,450 36,750 PENPAIR INC 1,018,875 44,000 PEOPLES ENERGY CORP 896,500 10,000 PEOPLES HERITAGE SVGS BK 200,000 10,000 PEOPLES WESTCHESTER SVGS 535,000 13,300 PE BOYS MANNY MOE & JACK 645,055 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERRIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 45,800 PETRIE STORES CORP. 1,547,700 45,800 PETRIE STORES CORP. 1,547,700 45,800 PHELPS DODGE 9,007,200 45,800 PHELPS DODGE 9,007,200 45,800 PHELPS DODGE 9,133,057,338 56,250 PHILLIPS PETROLEUM CO. 3,367,338 56,250 PHILLIPS PETROLEUM CO. 3,057,338 30,000 PHILADELPHIA ELEC. CO. 1,068,500 13,000 PHILADE	NO. OF SHARES		MARI VAI	KET LUE
49,000         PAUL HARRIS STORES INC         1,237,250           12,100         PAY N PAK STORES         252,588           30,000         PAYLESS CASHWAYS         697,500           20,000         PEGASUS GOLD INC         372,500           29,500         PENN CENT CORP         1,707,313           118,700         PENNEY J.C. INC.         6,231,750           54,000         PENNEY J.C. INC.         6,231,750           13,400         PENNEYLUANIA PWR & LT CO         1,944,000           13,400         PENNEYLU CO.         2,543,450           33,800         PENNEOIL CO.         2,543,450           35,750         PENTAIR INC         1,018,875           44,000         PEOPLES ENERGY CORP         896,500           10,000         PEOPLES HERITAGE SVGS BK         200,000           20,000         PEOPLES WESTCHESTER SVCS         535,000           13,300         PEP BOYS MANNY MOE & JACK         645,050           184,952         PEPSICO INCORPORATED         6,658,272           22,2300         PERKY DRUG STORES INC.         139,063           46,900         PETRIE STORES CORP.         1,547,700           24,000         PETROLITE CORP         864,000           25,000	90,000 27,250	PARKER DRILLING CO PARKER HANNIFIN CORP	697 899	,500 ,250
12,100				
30,000 PAYLESS CASHWAYS 697,500 20,000 PEGASUS GOLD INC 372,500 29,500 PENN CENT CORP 1,707,313 118,700 PENNEY J.C. INC. 6,231,750 54,000 PENNSYLVANIA PWR & LT CO 1,944,000 13,400 PENNWALT CORP 840,850 33,800 PENNWALT CORP 840,850 35,750 PENTAIR INC 1,018,875 44,000 PEOPLES ENERGY CORP 886,500 10,000 PEOPLES HERITAGE SVGS BK 200,000 20,000 PEOPLES WESTCHESTER SVGS 535,000 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERKY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETRIE STORES CORP. 1,547,700 25,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILLDELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 1,230,31 26,250 PIC N SAVE CORP. 1,230,31 26,250 PIC N SAVE CORP. 1,230,31 26,250 PIC N SAVE CORP. 249,075 74,000 PILGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 0,100 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,099,000 15,000 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,099,000 15,000 PIONEER STD ELECTRS INC 372,988 30,000 PITTESTON CO 552,063 22,000 PLANNS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 244,000 POLAROID CORP. 16,885,500				
20,000 PEGASUS GOLD INC 29,500 PENN CENT CORP 11,707,313 118,700 PENNY J.C. INC. 6,231,750 54,000 PENNSYLVANIA PWR & LT CO 11,944,000 13,400 PENNSYLVANIA PWR & LT CO 33,800 PENNZOIL CO. 35,750 PENTAIR INC 10,000 PEOPLES ENERGY CORP 10,000 PEOPLES ENERGY CORP 10,000 PEOPLES HERITAGE SVGS BK 200,000 20,000 PEOPLES WESTCHESTER SVGS 33,300 PEP BOYS MANNY MOE & JACK 645,050 13,300 PERKIN ELMER 12,500 PERKY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 24,000 PETROLITE CORP 125,100 PFIZER INCORPORATED 30,300 PH GROUP INC 130,100 PH GROUP INC 130,100 PHILLIPS PETROLEUM CO. 133,900 PHILLIPS PETROLEUM CO. 30,673,338 56,250 PHILLIPS PETROLEUM CO. 27,48,363 366,250 PHILLIPS PETROLEUM CO. 30,673,338 56,250 PHILLIPS VAN HEUSEN CORP 14,400 PIEDMONT AVIATION 24,600 PILGRIMS PRIDE CORP 30,000 PILGRIMS PRIDE CORP 31,300 PILGRIMS PRIDE CORP 34,000 PILGRIMS PRIDE CORP 34,600 PILGRIMS PRIDE CORP 30,000 PILGRIMS PRIDE CORP 31,500,675 32,200 PITNEY BOWES INC. 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 372,988 30,000 PIONEER STD ELECTRS INC 372,988 30,000 PITNEY BOWES INC. 372,988 372,707 372,988 372,707 372,988 373,000 POLAROI CORP. 372,985				
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54,000       PENNSYLVANIA PWR & LT CO       1,944,000         13,400       PENNWALT CORP       840,850         33,800       PENNZOLI CO.       2,543,450         35,750       PENTAIR INC       1,018,875         44,000       PEOPLES ENERGY CORP       896,500         10,000       PEOPLES HERITAGE SVGS BK       200,000         20,000       PEOPLES WESTCHESTER SVGS       535,000         13,300       PEP BOYS MANNY MOE & JACK       645,050         184,952       PEPSICO INCORPORATED       6,658,272         32,300       PERKIN ELMER       1,021,488         12,500       PERRY DRUG STORES INC.       139,063         46,900       PETRIE STORES CORP.       1,547,770         24,000       PETRIE STORES CORP.       864,000         125,100       PFIZER INCORPORATED       9,007,200         45,800       PHELPS DODGE       1,631,625         29,000       PHH GROUP INC       1,744,500         130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PI	29,500	PENN CENT CORP		
13,400 PENNWALT CORP 33,800 PENNZOIL CO. 2,543,450 44,000 PEOPLES ENERGY CORP 44,000 PEOPLES ENERGY CORP 10,000 PEOPLES HERITAGE SVGS BK 200,000 20,000 PEOPLES WESTCHESTER SVGS 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIC STORES CORP. 24,000 PETRIC STORES CORP. 24,000 PETRIC STORES CORP. 25,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 29,000 PHH GROUP INC 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 26,250 PIC N SAVE CORP. 14,400 PIEDMONT AVIATION 24,600 PILGRIMS PRIDE CORP 24,600 PILGRIMS PRIDE CORP 24,600 PILGRIMS PRIDE CORP 30,000 PILGRIMS PRIDE CORP 24,600 PILLIPS VAN HEUSEN CORP 11,132,031 26,250 PIC N SAVE CORP. 24,600 PILLIPS PETROLEUM CO. 37,978 30,000 PINNACLE WEST CAPITAL COR 15,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 22,200 PITNEY BOWES INC. 22,225,025 36,500 PITSTON CO 22,200 PITNEY BOWES INC. 22,225,025 36,500 PITSTON CO 22,000 PLAINS PETE CO 44,882 PNC FINANCIAL 22,176,777 30,000 POLAROID CORP. 23,000 POLICY MGMT. SYS. CORP.	118,700	PENNEY J.C. INC.	6,231	,750
33,800 PENNZOIL CO. 2,543,450 35,750 PENTAIR INC 1,018,875 44,000 PEOPLES ENERGY CORP 896,500 10,000 PEOPLES HERITAGE SVGS BK 200,000 20,000 PEOPLES WESTCHESTER SVGS 535,000 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PHILLIPS VAN HEUSEN CORP 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILGRIMS PRIDE CORP 249,075 74,000 PILGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 50,100 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER HI-BRED INTL. 1,095,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,755 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 24,000 POLAROID CORP. 16,88,500 23,000 POLICY MGMT. SYS. CORP.	54,000	PENNSYLVANIA PWR & LT CO	1,944	,000
35,750 PENTAIR INC 44,000 PEOPLES ENERGY CORP 10,000 PEOPLES ENERGY CORP 20,000 PEOPLES WESTCHESTER SVGS S535,000 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,727 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILGRIMS PRIDE CORP 249,075 74,000 PILGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 135,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITNEY BOWES INC. 2,176,777 30,000 POGO PRODUCING CO 221,250 44,882 PNC FINANCIAL 2,176,777 30,000 POLICY MGMT. SYS. CORP. 546,250	13,400	PENNWALT CORP	840	,850
44,000 PEOPLES ENERGY CORP 10,000 PEOPLES HERITAGE SVGS BK 200,000 13,300 PEOPLES WESTCHESTER SVGS 135,000 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 1,400 PIEDMONT AVIATION 24,600 PIEDMONT AVIATION 24,600 PILGRIMS PRIDE CORP 24,000 PILGRIMS PRIDE CORP 372,000 24,600 PILGRIMS PRIDE CORP 372,000 24,600 PILGRIMS PRIDE CORP 372,000 15,000 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 23,000 POLICY MGMT. SYS. CORP. 1,688,550	33,800	PENNZOIL CO.	2,543	,450
10,000 PEOPLES HERITAGE SVGS BK 200,000 PEOPLES WESTCHESTER SVGS 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILLIPS PETROLEUM CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 372,988 30,000 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 44,000 POGO PODLICY MGMT. SYS. CORP. 1,688,500 23,000 POLICY MGMT. SYS. CORP.		PENTAIR INC	1,018	,875
20,000 PEOPLES WESTCHESTER SVGS 535,000 13,300 PEP BOYS MANNY MOE & JACK 645,050 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILLGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 50,100 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 135,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 44,000 POLICY MGMT. SYS. CORP. 546,250		PEOPLES ENERGY CORP		
13,300 PEP BOYS MANNY MOE & JACK 184,952 PEPSICO INCORPORATED 6,658,272 32,300 PERKIN ELMER 1,021,488 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 50,100 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 15,000 PIONEER STD ELECTRS INC 135,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 44,000 POLAROID CORP. 1,688,500 23,000 POLICY MGMT. SYS. CORP. 546,250				
184,952       PEPSICO INCORPORATED       6,658,272         32,300       PERKIN ELMER       1,021,488         12,500       PERRY DRUG STORES INC.       139,063         46,900       PETRIE STORES CORP.       1,547,700         24,000       PETROLITE CORP       864,000         125,100       PFIZER INCORPORATED       9,007,200         45,800       PHELPS DODGE       1,631,625         29,000       PHH GROUP INC       1,174,500         130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,657,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       22,225,025         36,500       PITTSTON CO       552,063         22,000       PLA				
32,300 PERKIN ELMER 12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 24,000 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILGRIMS PRIDE CORP 74,000 PILGRIMS PRIDE CORP 74,000 PILLSBURY COMPANY 3,209,750 50,100 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1095,000 15,000 PIONEER STD ELECTRS INC 135,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 44,000 POLAROID CORP. 1,688,500 23,000 POLICY MGMT. SYS. CORP.				
12,500 PERRY DRUG STORES INC. 139,063 46,900 PETRIE STORES CORP. 1,547,700 24,000 PETROLITE CORP 864,000 125,100 PFIZER INCORPORATED 9,007,200 45,800 PHELPS DODGE 1,631,625 29,000 PHH GROUP INC 1,174,500 130,100 PHILADELPHIA ELEC. CO. 2,748,363 183,900 PHILLIPS PETROLEUM CO. 3,057,338 56,250 PHILLIPS VAN HEUSEN CORP 1,132,031 26,250 PIC N SAVE CORP. 639,844 14,400 PIEDMONT AVIATION 997,200 24,600 PILGRIMS PRIDE CORP 249,075 74,000 PILLSBURY COMPANY 3,209,750 50,100 PINNACLE WEST CAPITAL COR 1,590,675 16,954 PIONEER GROUP INC 372,988 30,000 PIONEER HI-BRED INTL. 1,095,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 44,000 POLICY MGMT. SYS. CORP. 546,250				
46,900       PETRIE STORES CORP.       1,547,700         24,000       PETROLITE CORP       864,000         125,100       PFIZER INCORPORATED       9,007,200         45,800       PHELPS DODGE       1,631,625         29,000       PHH GROUP INC       1,174,500         130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUC				
24,000       PETROLITE CORP       864,000         125,100       PFIZER INCORPORATED       9,007,200         45,800       PHELPS DODGE       1,631,625         29,000       PHH GROUP INC       1,174,500         130,100       PHILLADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO				
125,100       PFIZER INCORPORATED       9,007,200         45,800       PHELPS DODGE       1,631,625         29,000       PHH GROUP INC       1,174,500         130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
45,800       PHELPS DODGE       1,631,625         29,000       PHH GROUP INC       1,174,500         130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
29,000       PHH GROUP INC       1,174,500         130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
130,100       PHILADELPHIA ELEC. CO.       2,748,363         183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250	~			
183,900       PHILLIPS PETROLEUM CO.       3,057,338         56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
56,250       PHILLIPS VAN HEUSEN CORP       1,132,031         26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250	-			
26,250       PIC N SAVE CORP.       639,844         14,400       PIEDMONT AVIATION       997,200         24,600       PILGRIMS PRIDE CORP       249,075         74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250	-			
14,400PIEDMONT AVIATION997,20024,600PILGRIMS PRIDE CORP249,07574,000PILLSBURY COMPANY3,209,75050,100PINNACLE WEST CAPITAL COR1,590,67516,954PIONEER GROUP INC372,98830,000PIONEER HI-BRED INTL.1,095,00015,000PIONEER STD ELECTRS INC135,00052,200PITNEY BOWES INC.2,225,02536,500PITTSTON CO552,06322,000PLAINS PETE CO706,75044,882PNC FINANCIAL2,176,77730,000POGO PRODUCING CO221,25044,000POLAROID CORP.1,688,50023,000POLICY MGMT. SYS. CORP.546,250	•			
24,600PILGRIMS PRIDE CORP249,07574,000PILLSBURY COMPANY3,209,75050,100PINNACLE WEST CAPITAL COR1,590,67516,954PIONEER GROUP INC372,98830,000PIONEER HI-BRED INTL.1,095,00015,000PIONEER STD ELECTRS INC135,00052,200PITNEY BOWES INC.2,225,02536,500PITTSTON CO552,06322,000PLAINS PETE CO706,75044,882PNC FINANCIAL2,176,77730,000POGO PRODUCING CO221,25044,000POLAROID CORP.1,688,50023,000POLICY MGMT. SYS. CORP.546,250				
74,000       PILLSBURY COMPANY       3,209,750         50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
50,100       PINNACLE WEST CAPITAL COR       1,590,675         16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
16,954       PIONEER GROUP INC       372,988         30,000       PIONEER HI-BRED INTL.       1,095,000         15,000       PIONEER STD ELECTRS INC       135,000         52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
30,000PIONEER HI-BRED INTL.1,095,00015,000PIONEER STD ELECTRS INC135,00052,200PITNEY BOWES INC.2,225,02536,500PITTSTON CO552,06322,000PLAINS PETE CO706,75044,882PNC FINANCIAL2,176,77730,000POGO PRODUCING CO221,25044,000POLAROID CORP.1,688,50023,000POLICY MGMT. SYS. CORP.546,250				
15,000 PIONEER STD ELECTRS INC 135,000 52,200 PITNEY BOWES INC. 2,225,025 36,500 PITTSTON CO 552,063 22,000 PLAINS PETE CO 706,750 44,882 PNC FINANCIAL 2,176,777 30,000 POGO PRODUCING CO 221,250 44,000 POLAROID CORP. 1,688,500 23,000 POLICY MGMT. SYS. CORP. 546,250				-
52,200       PITNEY BOWES INC.       2,225,025         36,500       PITTSTON CO       552,063         22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
36,500PITTSTON CO552,06322,000PLAINS PETE CO706,75044,882PNC FINANCIAL2,176,77730,000POGO PRODUCING CO221,25044,000POLAROID CORP.1,688,50023,000POLICY MGMT. SYS. CORP.546,250	15,000			
22,000       PLAINS PETE CO       706,750         44,882       PNC FINANCIAL       2,176,777         30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
44,882PNC FINANCIAL2,176,77730,000POGO PRODUCING CO221,25044,000POLAROID CORP.1,688,50023,000POLICY MGMT. SYS. CORP.546,250				-
30,000       POGO PRODUCING CO       221,250         44,000       POLAROID CORP.       1,688,500         23,000       POLICY MGMT. SYS. CORP.       546,250				
44,000 POLAROID CORP. 1,688,500 23,000 POLICY MGMT. SYS. CORP. 546,250				
23,000 POLICY MGMT. SYS. CORP. 546,250				-
IS TOO PONDEROSA SYSTEM INC. 379.900	13,100	PONDEROSA SYSTEM INC.		
67,400 POPE & TALBOT 1,474,375				-
35,500 PORTLAND GENERAL CORP 909,688	•			

NO. OF SHARES			MARKET VALUE
31,900 61,000 99,200	POTLATCH CORP POTOMAC ELEC. & PWR. PPG INDUSTRIES INC.	\$	1,040,738 1,403,000 4,662,400
17,900 15,000	PRATT & LAMBERT INC PRECISION CASTPARTS CORP		798,788 543,750
32,275 30,000	PREMARK INTL INC PREMIER INDL CORP		907,734 1,177,500
20,000	PRESIDENTIAL LIFE CORP		340,000
10,000	PRESTON CORP		167,500
40,700 29,000	PRICE CO PRIMARK CORP		1,826,413
37,400	PRIME COMPUTER INC.		775,750 986,425
24,433	PRIME MTR INNS INC		1,017,024
43,600	PRIMERICA CORP		1,814,850
119,700	PROCTOR & GAMBLE		11,730,600
40,000 26,100	PROFIT SYS INC		410,000
26,100	PROTECTIVE LIFE CORP PROVIDENT LIFE & ACC INS		362,138 526,500
24,100	PS GROUP INC.		831,450
63,100	PSE INC		567,900
95,515	PUBLIC SERVICE ENTERPRISE		3,629,570
35,000	PUBLIC SVC CO COLO		787,500
29,200 16,000	PUBLIC SVC CO N MEX PUGET SOUND BANCORP WASH		956,300
56,500	PUGET SOUND PWR & LT CO	•	412,000 1,130,000
40,000	PULTE HOME CORP		465,000
40,000	PURITAN BENNETT CORP		1,070,000
11,000	PUROLATOR COURIER CORP		404,250
4,800	QUAKER CHEMICAL		96,000
60,200 18,400	QUAKER OATS CO QUAKER ST OIL REFNG CORP		3,130,400 407,100
19,500	QUANTUM CORP.		314,438
6,150	QUEBECOR INC		85,331
26,000	QUESTAR CORP		1,111,500
31,500	QUICK & REILLY GROUP INC		606,375
10,000	QUIKSILVER INC		116,250
16,800 8,000	QUIXOTE CORP R T E CORP		214,200 256,000
25,000	R.P.M. INC OHIO		537,500
26,900	RAINIER BANCORP		1,432,425
15,000	RALIGH FED SVGS BK N C		140,625
73,100	RALSTON PURINA CO.		6,250,050
77,000	RANGER OIL LTD		442,750
34,000 11,000	RANSBURG CORP RAYCHEM CORP		522,750 1,298,000
53,800	RAYTHEON COMPANY		4,061,900
8,250	REDKEN LABS INC.		183,563

NO. OF SHARES		MARKET VALUE
30,400 40,500 49,900 32,000 5,100 2,508	REDMAN INDS INC REEBOK INTERNATIONAL LTD REEVES COMMUNICATIONS COR REGIS CORP. REICHHOLD CHEMS INC REPUB. PICTURES CORP CL A	\$ 277,400 1,706,063 461,575 432,000 309,825 22,572
21,050	REPUBLIC N Y CORP	1,147,225
11,000	RESORT INTL.	635,250
40,000	REYNOLDS & REYNOLDS CO	1,310,000
22,800	REYNOLDS METALS CO	1,727,100
10,000	RHODES INC	172,500
27,600	RIBI IMMUNOCHEM RESH INC	279,450
25,000 5,000 6,000	RICHMOND HILL SVGS BK N Y RIEDEL ENVIRONMENTAL RIGGS NATL CORP WASH D C	409,375 118,750 174,000
41,700	RITE AID CORP	1,626,300
90,750	RLC CORP.	805,406
31,000	RLI CORP	430,125
38,200	ROADWAY SVCS INC	1,403,850
18,500	ROBERTSON H H CO	247,438
31,900	ROCHESTER GAS & ELEC CORP	566,225
7,700	ROCHESTER TEL CORP	340,725
10,000	ROCKAWAY CORP	113,750
217,100	ROCKWELL INTL CORP	5,861,700
58,600	ROHM & HAAS CO	2,776,175
22,600	ROHR INDS INC	666,700
35,000	ROLLINS INC	630,000
10,000	ROPER CORP	247,500
25,242	RORER GROUP INC.	1,110,652
14,000	ROSES STORES INC	259,000
39,800	ROTHSCHILD L F UNTERBERG	482,575
20,000	ROTO ROOTER INC	500,000
64,200	ROUSE CO	1,540,800
69,200 69,600 20,000	ROWAN COMPANIES INC ROYAL INTL OPTICAL CORP ROYAL PALM SVGS ASSN WEST	631,450 417,600 97,500
91,000 52,100 45,600	RPC ENERGY SVCS INC RUBBERMAID INC RYAN BECK & CO RYAN HOMES INC.	511,875 1,556,488 438,900 579,638
12,300 36,975 65,810 37,000	RYAN HOMES INC. RYANS FAMILY STEAK HOUSE RYDER SYSTEMS INC. RYKOFF S E & CO	503,784 2,385,613 1,049,875
10,000	RYMER CO	192,500
33,000	SABINE CORP	585,750
10,500	SAFECARD SVCS INC	213,938
48,000	SAFECO CORPORATION	1,524,000

NO. OF SHARES			MARKET VALUE
11,625	SAFETY KLEEN CORP	\$	390,891
50,000	SALEM CARPET MLS INC		475,000
126,200 37,800	SALOMON INC		4,148,825
4,100	SAN DIEGO GAS & ELEC CO SAN JUAN RACING ASSN INC		1,280,475
116,645	SAN JUAN RACING ASSN INC SANTA FE SO. PACIFIC CORP		45,100
93,200	SARA LEE		5,832,250
11,200	SAVANNAH ELEC & PWR CO		4,240,600
31,600	SAVANNAH FOODS & INDS INC		187,600 853,200
15,812	SCAN TRON CORP		185,791
28,700	SCANA		972,213
16,500	SCHERER R.P. CORP.		299,063
83,046	SCHERING PLOUGH CORP		4,038,112
210,220	SCHLUMBERGER LTD		9,617,565
12,000	SCHULMAN A INC	•	378,000
73,350	SCI SYS INC		1,430,325
19,600	SCIENTIFIC ATLANTA INC		377,300
20,000	SCIENTIFIC MICRO SYS INC		117,500
27,000	SCITEX LTD		84,375
0	SCOA INDS INC		5
25,900	SCOTT PAPER CO.		1,874,513
33,600	SEAGATE TECHNOLOGY		1,142,400
11,300	SEALED AIR CORP		522,625
14,600	SEALED POWER CORP		525,600
265,800	SEARS ROEBUCK & COMPANY	· 1	3,456,125
10,050	SECURITY BANCORP INC DEL		256,275
53,670	SECURITY PACIFIC CORP.		2,254,140
32,200	SELECTIVE INSURANCE GROUP		837,200
94,400	SENSORMATIC ELECTRS CORP		1,109,200
19,330	SEQUA CORP CLASS A		1,399,009
3,350	SEQUA CORP CLASS B		251,250
31,837	SERVICE CORP. INT'L		787,966
18,400	SERVICE MERCHANDISE		144,900
25,500	SERVICEMASTER LTD PARTN		790,500
48,000	SEVEN OAKS INTL INC		582,000
28,400	SHAKLEE CORP		656,750
20,700 10,000	SHARED MED. SYSTEMS CORP. SHAW INDS INC		579,600
15,000	SHAWMUT CORP		237,500
32,100	SHERWIN WILLIAMS CO.		695,625
12,800	SHERWIN WIDDIAMS CO. SHL SYSTEMHOUSE INC		1,123,500 236,800
44,566	SHONEYS INC		1,325,839
12,800	SIERRA PAC RES		324,800
30,100	SIGNET BANKING CORP.		1,000,825
23,600	SINGER CO.		890,900
19,125	SIPPICAN INC		282,094
15,262	SIZZLER RESTAURANTS INTL		288,070

NO. OF SHARES		MARKET VALUE
	SKYLINE CORP. SKYWEST INC SMITHFIELD FOODS INC SMITHKLINE-BECKMAN CORP. SMUCKER J M CO SNAP ON TOOLS CORP SO JERSEY INDS INC SO. CAROLINA NATL. CORP. SOCIETY CORP SOFTWARE AG SYS GP SOMERSET SVGS BK SOMERVIL SONAT INC. SONOCO PRODS CO SOUTHDOWN INC. SOUTHEAST BKG CORP SOUTHERN CALIF. EDISON SOUTHERN CO SOUTHERN NEW ENGLAND TELE SOUTHERN UN CO. SOUTHLIFE HLDG CO SOUTHTUST CORP SOUTHWEST AIRLINES SOUTHWESTERN BELL CORP. SOUTHWESTERN BELL CORP. SOUTHWESTERN PUB SVC CO SOUTHWESTERN PUB	\$ VALUE  297,963 212,500 977,500 5,401,400 1,102,750 1,707,713 253,575 292,500 670,000 89,250 262,500 1,188,450 969,000 463,333 1,149,750 4,744,725 4,820,900 1,528,313 403,000 2,691,658 255,000 306,659 430,313 8,264,048 609,000 1,045,250 962,938 72,000 73,125 1,401,750 200,675 1,176,825 7,287,000 119,475
5,900 30,000 50,400 29,600	ST JOE GOLD CORP ST JUDE MED INC ST. PAUL COS. INC.	427,500 1,222,200 1,354,200
31,000 36,500 20,400 17,000 23,400 20,000 6,000	STALEY CONTL INC STANDARD BRANDS PAINT CO STANDARD MICROSYSTEMS COR STANDARD MTR PRODS INC STANDARD PRODS CO STANDARD REGISTER	883,500 862,313 285,600 327,250 1,055,925 495,000 108,000
19,350 20,000 24,700	STANDEX INTL. STANLEY WKS STARS TO GO INC STATE STREET BOSTON CORP	662,738 190,000 747,175

NO. OF SHARES		MARKET VALUE
45,800 27,000 12,000 6,600	STERLING DRUG INC STEVENS J.P. STEWART INFORMATION SVCS STEWART WARNER CORP	\$ 2,627,775 1,157,625 231,000
16,000	STOKELY USA INC	195,525 128,000
30,800	STONE CONTAINER CORP	1,443,750
15,000 4,500	STOP & SHOP INC. STORAGE EQUITIES INC	1,029,375
5,512	STRAWBRIDGE & CLOTHIER	64,688 248,040
75,000	STRYKER CORP	1,893,750
27,600	STUDENT LN MARKETING ASSN	2,190,750
4,100	SUAVE SHOE CORP	38,438
43,200	SUBARU OF AMERICA INC.	518,400
10,600	SUMMIT BANCORP.	312,700
32,100 84,345	SUMMIT HEALTH LTD SUN COMPANY INC	168,525
14,800	SUNDSTRAND CORP	5,535,141 845,450
1	SUNSHINE MNG CO	3
99,100	SUNTRUST BKS INC	2,514,663
47,500	SUPER FOOD SVCS INC	1,252,813
70,000	SUPER RITE FOODS INC	1,111,250
54,900	SUPER VALU STORES INC.	1,544,063
15,700 2,700	SUPERMARKETS GEN CORP SWANK INC	620,150
50,000	SYMBOLICS INC	41,513 212,500
86,600	SYNTEX CORPORATION	3,723,800
40,600	SYSCO CORP	1,426,075
3,600	SYSTEMS & COMPUTER TECHN	11,250
15,000	TAB PRODS CO	270,000
6,500	TAFT BROADCASTING	988,000
10,500 24,000	TALLEY INDS INC TAMBRANDS INC.	250,688
73,600	TANDEM COMPUTERS INC	1,422,000 2,327,600
50,000	TANDON CORP.	262,500
72,700	TANDY CORP	3,135,188
6,900	TASTY BAKING CORP	206,138
10,000	TCA CABLE TV INC	255,000
50,850	TCBY ENTERPRISES INC.	826,313
22,800 7,000	TECO ENERGY INC TECUMSEH PRODS CO	1,023,150 864,500
34,500	TEJON RANCH CO	1,574,063
28,400	TEKTRONIX INC	1,100,500
85,400	TELE COMMUNICATIONS INC	3,010,350
6,600	TELECOM CORP	17,325
10,000	TELECREDIT INC	390,000
9,100	TELEDYNE INC.	3,100,825
13,400	TELEPHONE & DATA SYS INC	386,925

NO. OF SHARES			MARKET VALUE
30,659 3,400	TELERATE INC TELEX CORP.	\$	1,333,667 240,550
16,700	TELLABS INC		194,138
24,295	TEMPLE INLAND		1,481,995
10,000	TENNANT CO		325,000
122,300	TENNECO INC.		6,007,988
22,600	TERADYNE INC.		593,250
44,000	TESORO PETE CORP		583,000
75,000	TEXACO CDA INC		2,090,625
184,600	TEXACO INC.		7,476,300
151	TEXAS AIR CORP		5,625
750	TEXAS AIR CORP PFD		3,656
17,000	TEXAS AMERN BANCSHAR	ES IN	233,750
37,900	TEXAS EASTERN CORP.		1,383,350
13,989	TEXAS INDUSTRIES		423,168
58,200	TEXAS INSTRUMENTS		3,542,925
104,500	TEXAS UTILITIES CO.		3,370,125
60,000	TEXTRON INC		1,822,500
36,000	THERMO ENVIRONMENTAL	CORP	243,000
14,300	THOMAS & BETTS CORP		809,738
15,400	THOMPSON MED CO INC		288,750
27,900	TIDEWATER INC.		258,075
136,200	TIE COMMUNICATIONS		595,875
50,100	TIME INC.		4,897,275
15,000	TIMEPLEX INC.		459,375
50,200	TIMES MIRROR CO		4,630,950
10,200	TIMKEN CO		629,850
7,200	TIPTON CTRS INC		41,400
100,000	TITAN CORP		600,000
4,584	TMK UNITED INC		53,862
5,716	TODD AO CORP		114,320
13,000	TODD SHIPYARDS CORP	TNO	128,375
12,730		INC	393,039
55,400	TORCHMARK CORP	TNC	1,571,975 290,250
54,000		INC	3,697,500
102,000 16,700	TOYS R US		77,238
20,000	TPI ENTERPRISES INC TRACOR INC.		405,000
18,422	TRANS WORLD AIRLINES		545,752
93,567	TRANSAMERICA CORP		3,789,464
18,100	TRANSCO ENERGY CO.		658,388
69,100	TRAVELERS CORP.		3,109,500
10,000	TRENWICK GROUP INC		147,500
50,000	TRIAD SYS CORP		593,750
61,800	TRIBUNE COMPANY		2,487,450
20,000	TRINITY INDS INC.		567,500
6,900	TRINOVA CORP		481,275
0/200			202,270

## MINNESOTA STATE BOARD OF INVESMENT PASSIVE EQUITY FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES			MARKET VALUE
20,000 41,800 18,200 57,500 35,100 13,000 23,400 51,900 51,150 80,200	TRUS JOIST CORP TRW INC. TUCSON ELECTRIC PWR CO TVX BROADCAST GROUP INC TW SERVICES INC TYCO LABS TYLER CORP TYSON FOODS INC U S BANCORP U.S. HEALTHCARE INC.	<b>\$</b>	420,000 2,199,725 1,060,150 589,375 662,513 568,750 301,275 973,125 1,432,200
42,000 141,620 6,300 25,000 91,400 12,400 52,350 92,091	U.S. LEASING INTL INC U.S. WEST CORP UCCELCORP ULTIMATE CORP. ULTRASYSTEMS INC UNIMAR CO UNION CAMP CORP. UNION CARBIDE CORP		1,152,875 2,168,250 7,452,753 259,875 668,750 1,028,250 120,900 2,172,525 2,728,196
15,197 81,500 74,700 39,400	UNION CARBIDE CORP RTS UNION ELEC CO UNION PACIFIC CORP. UNISYS CORP.		56,989 1,996,750 5,854,613 4,856,050
43,500 8,000 10,000 47,900	UNITED MERCHANTS & MFRS UNITED NEW MEXICO FIN'L UNITED STATIONERS INC UNITED ARTIST COMM INC C		505,688 86,000 192,500 1,329,225
27,000 19,000 20,000 28,000 12,100	UNITED BANKERS INC UNITED BKS COLO INC UNITED BRANDS CO UNITED ILLUM CO UNITED INDL CORP		114,750 351,500 790,000 763,000 196,625
15,600 41,000 39,600 76,450 92,700	UNITED JERSEY BANKS HACKE UNITED STATES SHOE CORP UNITED STATES SURGICAL CO UNITED STOCKYARDS CORP UNITED TECHNOLOGIES CORP.		468,000 1,245,375 1,257,300 716,719 4,843,575
62,600 44,000 23,000 10,000	UNITED TELECOM. INC. UNITED VA BANKSHARES INC UNITRODE CORP UNIVAR CORP		1,713,675 1,358,500 319,125 215,000
38,950 77,000 82,680 145,500 70,000	UNIVERSAL FOODS CORP UNIVERSAL HEALTH SVCS INC UNOCAL CORP. UPJOHN COMPANY US FACS CORP		1,051,650 606,375 3,276,195 6,583,875 350,000
47,200 50,400	US FIDELITY & GUAR. CO. USG CORP HOLDING CO.		1,787,700 1,726,200

## MINNESOTA STATE BOARD OF INVESMENT PASSIVE EQUITY FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES		MARKET VALUE
16,200 184,134 39,000 48,000 20,100 33,100 19,900	USLIFE CORP. USX CORP. UTAH POWER & LIGHT CO. I V F CORP VALLEY NATIONAL CORP. VALUE LINE INC VARIAN ASSOC. INC.	\$ 603,450 5,800,221 931,125 1,956,000 804,000 885,425 631,825
25,000 41,000 10,500 28,000 5,020	VARLEN CORP VEECO INSTRS INC VERMONT FIN'L SVCS VESTRON INC VIACOM INC	431,250 799,500 315,000 136,500 113,578
7,749 23,900 105,000 25,000 11,000 8,100	VIACOM INC. PFD. VICORP RESTAURANTS INC VIE DE FRANCE CORP VLSI TECHNOLOGY INC VOLT INFORMATION SCIENCES VORNADO INC	193,737 239,000 682,500 378,125 308,000 769,500
10,000 21,200 206,200 25,000 46,800	VULCAN MATLS CO WACKENHUT CORP. WAL-MART STORES INC. WALBRO CORP WALGREEN CO	1,452,500 461,100 13,944,275 543,750 1,930,500
22,000 22,925 112,100 105,300 60,700 115,000	WALLACE COMPUTER SER INC WALTER JIM CORP WANG LABS CL B WARNER COMMUNICATIONS WARNER LAMBERT WARWICK INS MGRS INC	888,250 1,189,234 1,779,588 3,672,338 4,385,575 891,250
10,500 19,050 36,000 7,300 34,000	WASHINGTON GAS LT CO WASHINGTON MUT SVGS BK SE WASHINGTON NATL CORP WASHINGTON POST B WASHINGTON WTR PWR CO	275,625 707,231 985,500 1,606,000 926,500
154,600 19,000 27,000 31,500 41,400 9,000	WASTE MANAGEMENT WATKINS JOHNSON CO. WD 40 CO WEIS MARKETS INC. WELLS FARGO & CO. WELLS FARGO MTG & EQUITY	6,068,050 703,000 924,750 1,027,688 2,251,125 166,500
85,100 41,000 10,420 10,000 10,000 14,920	WENDYS INTL INC WEST INC WEST POINT PEPPERELL INC. WESTERN CAP. INVESTMENT WESTERN FED SVGS & LN ASS WESTERN TEL COMM	829,725 830,250 681,208 151,250 193,750 251,775
101,300	WESTINGHOUSE ELEC. CO.	6,445,213

## MINNESOTA STATE BOARD OF INVESMENT PASSIVE EQUITY FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES			MARKET VALUE
8,400 27,000 33,650 33,000 3,300 104,900 53,200 35,400 30,200 6,100 18,666 13,100 12,000 46,000 31,200 78,900 25,500 24,000 9,400 20,800 30,150 35,000 19,700 46,600 46,600 26,000 12,000 15,200 69,300 50,887 19,800 31,200 15,510	WESTMARK INTL INC WESTMORELAND COAL CO WESTVACO CORP WETTERAU INC WETTERAU PPTYS INC WEYERHEUSER CO. WHIRLPOOL CORP. WHITEHALL CORP. WHITTAKER CORP WILEY JOHN + SON WILLAMETTE INDS INC. WILLIAMS COMPANIES INC WILLIAMS COMPANIES INC WILSON FOODS CORP WINN DIXIE STORES INC WINNESAGO IND INC. WISCONSIN ENERGY CORP WISCONSIN PUB SVC CORP WISCONSIN PWR & LT CO WISER OIL CO DEL WITCO CORP. WOLVERINE TECHNOLOGIES IN WOLVERINE WORLD WIDE WOOLWORTH F W CO WORTHINGTON INDS INC WRIGLEY WM JR CO WRIGLEY WM JR CO WRIGLEY WM JR CO WRIGLEY WM JR CO XEROX CORP XIDEX CORP XTRA CORP. YELLOW FREIGHT SYSTEM YORK INTL CORP	<b>\$</b>	
46,766 18,900 15,000 23,000	ZAYRE CORP. ZENITH ELECTRONICS CORP ZERO CORP. ZURN INDS INC		1,303,602 486,675 253,125 1,213,250
TOTAL EQUITY		\$	2,158,085,702

#### MINNESOTA STATE BOARD OF INVESMENT INTERNAL POOLED FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

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NO. OF SHARES			MARKET VALUE
17,400	ALEXANDER & ALEXANDER	\$	450,225
36,800	AMERICAN FAMILY CORP	Ÿ	478,400
12,700	AMERICAN GENERAL CORP		503,238
31,900	AMERICAN MEDICAL INTL.		610,088
8,900	AMERICAN STORES NEW		651,925
19,400	AMES DEPARTMENT STORES		460,750
18,000	AON CORP		463,500
8,800	ATLANTIC RICHFIELD		838,200
21,500	BALLY MFG CO		483,750
18,800	BANC ONE CORP		519,350
18,950	BANK BOSTON CORP		663,250
23,700	BANKERS TRUST NY CORP.		1,208,700
21,125	BOEING COMPANY		990,234
14,300	BROWN GROUP		611,325
9,100	BURLINGTON NORTHERN INC.		753,025
9,300	CENTEL CORP.		614,963
17,300	CENTRAL & SO WEST CORP.		542 <b>,</b> 788
20,500	CHARMING SHOPPES INC		622,688
28,900	CHASE MANHATTAN CORP.		1,192,125
23,800	CHEMICAL NEW YORK CORP		999,600
18,375	CHRYSLER CORP.		627,047
39,600	CHURCHS FRIED CHICKEN		396,000
8,700	CIGNA CORPORATION		551,363
12,700	CIRCUIT CITY STORES INC		485,775
20,900	CITICORP		1,233,100
20,100	CITIZENS & SOUTHN GA CORP CNA FINL CORP		555,263
8,800 20,850	COASTAL CORP		459,800 724,538
26,700	COMDISCO INC.		821,025
16,450	COMMONWEALTH EDISON CO.		569,581
18,300	COMMUNICATIONS SATELLITE		519,263
18,750	CONTEL CORP		595,313
11,700	COOPER INDS. INC.		690,300
6,300	CRAY RESEARCH INC		640,238
34,900	CSX CORPORATION		1,217,138
14,000	DAYTON-HUDSON CORP.		708,750
12,900	DUKE POWER CO. NC		575,663
14,500	EMHART CORP VA		648,875
25,500	FAMILY DLR STORES INC		446,250
9,600	FEDERAL EXPRESS CORP.		645,600
18,100	FIRST BANK SYSTEM		610,875
19,700	FIRST INTERST. BANCORP		1,177,075
20,400	FIRST UNION CORP		517,650
20,000	FMC CORP NEW		687,500
27,500	FPL GROUP INC.		866,250
14,600	GENERAL DYNAMICS		974,550
17,700	GENERAL MOTORS CORP CL E		677,025

#### MINNESOTA STATE BOARD OF INVESMENT INTERNAL POOLED FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES		MARKET VALUE
7,700 8,600	GENERAL MOTORS CORP. GENERAL RE CORP.	\$ 636,213 466,550
31,700	GIBSON GREETINGS	467,575
14,500	GOLDEN WEST FIN'L	518,375
20,100	GREAT ATLANTIC & PAC TEA	778,875
15,050	GTE CORP.	579 <b>,</b> 425
23,600	HASBRO INC.	587,050
17,700	HM FED S & L ASSN. S.D.	544,275
26,700	HOME DEPOT INC.	901,125
8,800 17,400	HONEYWELL INC.	726,000
11,000	HOSPITAL CORP. OF AMER. HOUSEHOLD INTL.	806,925
16,250	HOUSTON INDUSTRIES INC.	583,000
49,500	HUMANA INC.	540,313
25,300	INTERGRAPH CORP.	1,274,625
19,000	KEMPER CORP.	569,250 584,250
19,600	KERR MCGEE CORP.	584,250 720,300
32,500	KEYSTONE INTL INC	674,375
28,100	KLM ROYAL DUTCH AIR	695,475
14,800	LIMITED INC.	641,950
6,950	LITTON INDS INC.	635,056
21,800	LIZ CLAIBORNE INC.	757,550
21,050	LOCKHEED AIRCRAFT CORP	1,086,706
7,900	LOEWS CORP	517,450
52 <b>,</b> 900	LONG ISLAND LTG CO	489,325
24,800	MARTIN MARIETTA	1,147,000
29,400	MAXICARE HEALTH PLANS	418,950
104,700	MCI COMMUNICATION	785 <b>,</b> 250
11,200	MELLON BANK CORP	399,000
7,900	MELVILLE CORPORATION	579,663
23,900	MFRS. HANOVER CORP.	1,066,538
41,300	MIDDLE SOUTH UTILS INC	438,813
13,200	MOBIL CORPORATION	671,550
8,000	MONSANTO CO.	669,000
11,400	MORGAN J P & COMPANY INC.	545,775
22,850 46,500	NATL. MEDICAL ENTER. INC. NCNB CORP.	625,519
35,100		1,203,188
18,100	NIAGARA MOHAWK PWR CORP NO. STS. POWER CO. MINN.	583,538
36,200	OCEAN DRILLING & EXPL CO	570,150 968,350
22,900	PACIFIC GAS & ELEC. CO.	460,863
16,600	PACIFICORP	595,525
27,800	PHILADELPHIA ELEC. CO.	587,275
24,500	PIC N SAVE CORP.	597 <b>,</b> 188
14,800	PIONEER HI-BRED INTL.	540,200
11,700	PNC FINANCIAL	567,450
12,500	PRICE CO	560,938
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## MINNESOTA STATE BOARD OF INVESMENT INTERNAL POOLED FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES		MARKET VALUE
13,600 15,900 7,900 18,600	PRIME MTR INNS INC PROGRESSIVE CORP OHIO RAYTHEON COMPANY REEBOK INTERNATIONAL LTD	\$ 566,100 477,000 596,450 783,525
23,400	ROCKWELL INTL CORP	631,800
25,650	ROLLINS ENVIR. SVS.	<b>570,71</b> 3
5,700	ROYAL DUTCH PET. GLDRS.	752 <b>,</b> 400
15,450	RYDER SYSTEMS INC.	<b>560,</b> 063
23,400	SAFECARD SVCS INC	476,775
26,900	SALOMON INC	884,338
25,000	SEAGATE TECHNOLOGY	850,000
29,600	SECURITY PACIFIC CORP.	1,243,200
30,600	SHARED MED. SYSTEMS CORP.	856,800
20,000	SONAT INC.	695,000
22,200	SOUTHERN CO	538,350
11,700	SOUTHLAND CORP.	783,900
15,900 14,200	SOUTHWESTERN BELL CORP.	618,113
11,800	SOVRAN FINANCIAL CORP. ST. PAUL COS. INC.	504,100
22,500	SUBARU OF AMERICA INC.	539,850 270,000
10,300	SUN COMPANY INC	675,938
18,500	TELERATE INC	804,750
7,200	TELEX CORP.	509,400
17,900	TEXACO INC.	724,950
17,400	TEXAS UTILITIES CO.	561,150
17,200	TORCHMARK CORP	488,050
15,650	TOYS R US	567,313
32,800	TRACOR INC.	664,200
10,600	TRW INC.	557,825
12,000	TYCO LABS	525,000
35,700	U.S. HEALTHCARE INC.	513,188
11,000	U.S. WEST CORP	578,875
21,150	UNITED TECHNOLOGIES CORP.	1,105,088
21,150	UNITED TELECOM. INC.	578 <b>,</b> 981
19,100	UNOCAL CORP.	<b>756,</b> 838
18,000	US AIR GROUP	852 <b>,</b> 750
12,600	US FIDELITY & GUAR. CO.	477,225
15,400	USG CORP HOLDING CO.	527 <b>,</b> 450
13,600	VALLEY NATIONAL CORP.	544,000
29,450	WORTHINGTON INDS INC	640,538
18,600	YELLOW FREIGHT SYSTEM	641,700
19,000	ZAYRE CORP.	529,625
TOTAL EQUITY	PORTFOLIO	\$ 90,666,963

#### EXTERNAL EQUITY FUND POOL

#### Key to Advisor references on attached listing:

Alger Fred Alger Management

Alliance Capital Management

BMI Capital

Beutel Goodman Capital Management

F.L.A. Forstmann Leff Associates

Hellman Jordan Management

IDS IDS Advisory

IAI Investment Advisers

Lieber & Co.

RMA Waddell & Reed

NWNB Peregrine Capital Management

NO. OF SHARES	SECURITY	ADVISO	MARKET R VALUE
14,000 55,200 43,000	A G EDWARDS, INC ABBOTT LABS ABBOTT LABS SUB-TOTAL	LIEBER ALGER ALLIANCE 98,200 SHA	\$ 381,500 3,443,100 2,682,125 RES 6,125,225
48,800 57,300 4,000 5,500	ACTION INDS INC ADVANCED MICRO DEV. AETNA LIFE & CASUALTY CO. AETNA LIFE & CASUALTY CO. SUB-TOTAL		329,400 1,088,700 238,000 327,250 RES 565,250
16,800 104,600 55,000	AFG INDS INC AHMANSON H.F. CO. AHMANSON H.F. CO. SUB-TOTAL	LIEBER BEUTEL RMA 159,600 SHA	453,600 2,248,900 1,182,500 RES 3,431,400
21,900 12,500	ALEXANDER & ALEXANDER ALEXANDER & ALEXANDER SUB-TOTAL	LIEBER NWNB 34,400 SHA	566,663 323,438 RES 890,100
8,700 22,000 34,000 3,150 268,500 26,200 15,000 4,500	ALEXANDERS INC ALFA CORP ALLEN GROUP INC ALLEN ORGAN CLASS B ALLIED BANKSHARES INC. ALLIED-SIGNAL INC. ALUMINUM CO. OF AMERICA ALUMINUM CO. OF AMERICA SUB-TOTAL	LIEBER LIEBER NWNB LIEBER BEUTEL NWNB IAI NWNB 19,500 SHA	418,688 291,500 535,500 99,225 2,416,500 1,142,975 800,625 240,188 1,040,813
30,000 70,000 55,000	ALZA CORPORATION AMAX INC AMAX INC SUB-TOTAL	HELLMAN ALLIANCE RMA 125,000 SHA	1,121,250 1,443,750 1,134,375 RES 2,578,125
44,000 13,200 100,000 90,000 110,000		NWNB NWNB BEUTEL ALLIANCE HELLMAN 200,000 SHA	495,000 559,350 3,450,000 3,082,500 3,767,500 RES 6,850,000
40,000 130,000 22,100 14,000 63,000	AMERICAN FAMILY CORP AMERICAN GENERAL CORP AMERICAN GREETINGS AMERICAN HEALTH PPTYS INC AMERICAN INTERNATIONAL GR		520,000 5,151,250 574,600 246,750 4,465,125

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
86,000	AMERICAN INTERNATIONAL GR SUB-TOTAL	HELLMAN 149,000 SHARES	\$ 6,095,250 10,560,375
32,000 93,500	AMERICAN MEDICAL INTL. AMERICAN MEDICAL INTL. SUB-TOTAL	NWNB INTERNAL MANAGED FUN 125,500 SHARES	612,000 1,788,188 2,400,188
11,000 26,600 70,000 65,000 10,000	AMERICAN PRESIDENT COS L AMERICAN STORES NEW AMERICAN TEL & TEL NEW AMERICAN TEL & TEL NEW AMERICAN TEL & TEL NEW SUB-TOTAL	RMA INTERNAL MANAGED FUN IDS IAI NWNB 145,000 SHARES	866,250 1,948,450 1,933,750 1,795,625 276,250 4,005,625
59,600 10,000 35,300 20,500 36,000	AMERICAN WATER WORKS AMES DEPARTMENT STORES AMGEN CORP. AMOCO CORP AMOCO CORP SUB-TOTAL	IDS LIEBER RMA ALGER IDS 56,500 SHARES	1,065,350 237,500 1,350,225 1,793,750 3,150,000 4,943,750
10,000 21,900 86,000 15,000	AMP INC. AMR CORP. AMR CORP. AMR CORP. SUB-TOTAL	IAI ALGER ALLIANCE IAI 122,900 SHARES	586,250 1,297,575 5,095,500 888,750 7,281,825
89,000 64,700 120,000 24,900 85,200 40,000 70,200 62,000 40,000 72,000	ANADARKO PETE CORP. ANALOGIC CORP ANCHOR GLASS CONTAINER CO ANGELICA CORP APPLE COMPUTER SUB-TOTAL	RMA NWNB BMI NWNB ALGER ALLIANCE F.L.A. HELLMAN IAI RMA 369,400 SHARES	2,636,625 687,438 3,300,000 678,525 3,450,600 1,620,000 2,843,100 2,511,000 1,620,000 2,916,000 14,960,700
37,625 17,200		IAI NWNB 54,825 SHARES	921,813 421,400 1,343,213
13,500 18,700 86,600	ARISTECH CHEM CORP ARISTECH CHEM CORP ARISTECH CHEM CORP SUB-TOTAL	F.L.A. LIEBER RMA 118,800 SHARES	374,625 518,925 2,403,150 3,296,700

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
18,100 33,000 30,000 17,300 15,000 30,000 25,800	ARMTEK CORP ASARCO INC. ASHLAND OIL INC ATLANTA GAS LT CO ATLANTIC RESEARCH CORP ATLANTIC RICHFIELD ATLANTIC RICHFIELD SUB-TOTAL	NWNB RMA IDS NWNB LIEBER IAI INTERNAL MANAGED FUN 55,800 SHARES	\$ 364,263 816,750 1,901,250 402,225 405,000 2,857,500 2,457,450 5,314,950
44,500 48,000 20,000	AUDIO VIDEO AFFILIATES IN AUTOMATIC DATA PROCESSIN AUTOMATIC DATA PROCESSIN SUB-TOTAL	IDS	294,813 2,292,000 955,000 3,247,000
54,400 24,500 11,500 36,558 55,550 26,676 7,500 53,200 50,000 37,100	AVERY INTL. CORP.  AVON PRODS INC  BALDWIN & LYONS INC CL B  BANC ONE CORP  BANK BOSTON CORP  BANK NEW ENGLAND CORP  BANK OF NY CO. INC.  BANKERS TRUST NY CORP.  BANKERS TRUST NY CORP.  BANKERS TRUST NY CORP.  SUB-TOTAL	ALGER NWNB NWNB LIEBER INTERNAL MANAGED FUN LIEBER LIEBER ALGER BEUTEL INTERNAL MANAGED FUN 140,300 SHARES	946,998 326,250 2,713,200 2,550,000
14,100 19,476 19,500 11,000 45,000 31,500 15,000 100,000 10,000	BARCLAYS PLC BARNETT BKS FLA BARRY WRIGHT CORP BEARINGS INC BECTON DICKINSON CO BELL CANADA ENTERPRISES I BENCH CRAFT INC BENEFICIAL CORP. BENEFICIAL CORP. SUB-TOTAL	F.L.A. LIEBER NWNB NWNB BMI NWNB LIEBER BEUTEL LIEBER 110,000 SHARES	523,463 720,612 365,625 459,250 2,868,750 996,188 202,500 5,737,500 573,750 6,311,250
8,000 65,500 25,000 10,200 50,000 8,750 5,500	BERKLINE CORP. BEST PRODUCTS BINDLEY WESTN INDS INC BK. OF NEW HAMP. CORP. BLACK & DECKER MFG CO BOATMEN'S BANCSHARES BOATMEN'S BANCSHARES SUB-TOTAL	LIEBER NWNB NWNB LIEBER RMA LIEBER NWNB 14,250 SHARES	100,000 695,938 290,625 267,750 1,162,500 336,875 211,750 548,625
22,100	BOEING COMPANY	NWNB	1,035,938

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
19,400 33,700	BOEING COMPANY BOEING COMPANY SUB-TOTAL	RMA \$ INTERNAL MANAGED FUN 75,200 SHARES	909,375 1,579,688 3,525,000
40,000 14,600 30,000	BOISE CASCADE CORP BOISE CASCADE CORP BOISE CASCADE CORP SUB-TOTAL	ALLIANCE F.L.A. IAI 84,600 SHARES	2,910,000 1,062,150 2,182,500 6,154,650
5,000 16,500 30,000 22,700 90,000 89,200 15,000 13,900 16,000 26,600	BORDEN INC.  BOWATER INC.  BRISTOL-MYERS CO.  BRITISH PETROLEUM  BROWNING FERRIS INDS INC  BRUNSWICK CORP.  BUILDERS TRANSPORT INC.  BURLINGTON NORTHERN INC.  BURLINGTON NORTHERN INC.  BURLINGTON NORTHERN INC.  SUB-TOTAL	ALGER RMA IAI RMA IAI ALGER LIEBER F.L.A. IDS INTERNAL MANAGED FUN 56,500 SHARES	300,000 643,500 1,492,500 1,702,500 2,553,750 2,140,800 330,000 1,150,225 1,324,000 2,201,150 4,675,375
20,000 42,900 43,500 6,100 3,000	CADILLAC FAIRVIEW LTD CALGON CARBON CORP CANNON GROUP INC CAPITAL CITIES/ABC INC. CAPITAL CITIES/ABC INC. SUB-TOTAL	LIEBER RMA NWNB ALGER IAI 9,100 SHARES	490,354 1,335,263 212,063 2,333,250 1,147,500 3,480,750
55,000 160,000 25,000 27,300 50,500 12,500 50,700 29,500 35,500	CARTER HAWLEY HALE STORE CASTLE & COOKE INC CBS INCORPORATED CENTEL CORP. CENTERIOR ENERGY CORP CENTERRE BANCORP CENTRAL & SO WEST CORP. CETUS CORP CETUS CORP SUB-TOTAL	BMI BMI BMI INTERNAL MANAGED FUN NWNB LIEBER INTERNAL MANAGED FUN ALGER F.L.A. 65,000 SHARES	3,458,125 3,800,000 4,387,500 1,805,213 871,125 482,813 1,590,713 859,188 1,033,938 1,893,125
16,300 66,000	CHAMPION INTL. CHAMPION INTL. SUB-TOTAL	F.L.A. HELLMAN 82,300 SHARES	592,913 2,400,750 2,993,663
8,000 46,300	CHASE MANHATTAN CORP. CHASE MANHATTAN CORP. SUB-TOTAL	NWNB INTERNAL MANAGED FUN 54,300 SHARES	330,000 1,909,875 2,239,875

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
26,000 55,000 14,900 38,500	CHAUS BERNARD INC CHEMICAL NEW YORK CORP CHEMICAL NEW YORK CORP CHEMICAL NEW YORK CORP SUB-TOTAL	NWNB BEUTEL NWNB INTERNAL MANAGED FUN 108,400 SHARES	\$ 318,500 2,310,000 625,800 1,617,000 4,552,800
44,500 54,500 29,250 55,000 10,900 53,550	CHEROKEE GROUP CHI-CHIS INC CHIEF AUTO SYSTEMS CHRYSLER CORP. CHRYSLER CORP. CHRYSLER CORP. SUB-TOTAL	ALGER NWNB LIEBER ALLIANCE RMA INTERNAL MANAGED FUN 119,450 SHARES	845,500 401,938 446,063 1,876,875 371,963 1,827,394 4,076,231
11,500 67,700 71,900	CHUBB CORPORATION CHURCHS FRIED CHICKEN CHURCHS FRIED CHICKEN SUB-TOTAL	LIEBER NWNB RMA 139,600 SHARES	707,250 677,000 719,000 1,396,000
13,100 9,200 34,100	CIGNA CORPORATION CITICORP CITICORP SUB-TOTAL	NWNB NWNB INTERNAL MANAGED FUN 43,300 SHARES	830,213 542,800 2,011,900 2,554,700
60,500 61,200 4,400 41,000 72,000	CMI CORP COASTAL CORP COCA COLA BOTTLING CO CO COCA COLA COMPANY COCA COLA COMPANY SUB-TOTAL	NWNB INTERNAL MANAGED FUN NWNB ALGER ALLIANCE 113,000 SHARES	219,313 2,126,700 152,900 1,824,500 3,204,000 5,028,500
11,500 15,000 15,000 10,000 175,000 9,300 48,050	COLEMAN CO. INC. COLONIAL LIFE & ACC INS C COMBUSTION ENGINEERING COMMERCE UN CORP COMMERCIAL CREDIT CO. COMMONWEALTH EDISON CO. SUB-TOTAL	NWNB LIEBER IAI LIEBER BMI NWNB INTERNAL MANAGED FUN 57,350 SHARES	422,625 375,000 562,500 303,750 4,550,000 322,013 1,663,731 1,985,744
100,000 53,500	COMMUNICATIONS SATELLITE COMMUNICATIONS SATELLITE SUB-TOTAL	BEUTEL INTERNAL MANAGED FUN 153,500 SHARES	2,837,500 1,518,063 4,355,563
35,000 32,900 10,000	COMMUNITY PSYCHIATRIC CEN COMPAQ COMPUTER CORP COMPUTER HORIZONS CORP	BMI ALGER LIEBER	1,439,375 1,542,188 123,750

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
82,500 17,200 24,600	COMPUTER PRODS INC COMPUTER SCIENCES CORP. COMPUTER SCIENCES CORP. SUB-TOTAL	NWNB \$ IAI RMA 41,800 SHARES	304,219 969,650 1,386,825 2,356,475
56,000 64,000 52,700 76,000	COMPUTER VISION CORP. CONAGRA INC. CONSOLIDATED RAIL CORP CONSOLIDATED RAIL CORP SUB-TOTAL	RMA IDS ALGER ALLIANCE 128,700 SHARES	840,000 2,024,000 1,758,863 2,536,500 4,295,363
31,100 55,000	CONTEL CORP CONTEL CORP SUB-TOTAL	NWNB INTERNAL MANAGED FUN 86,100 SHARES	987,425 1,746,250 2,733,675
115,000 105,400 27,000	CONTROL DATA CORP. CPC INTL. INC. CPC INTL. INC. SUB-TOTAL	BMI F.L.A. HELLMAN 132,400 SHARES	3,291,875 5,744,300 1,471,500 7,215,800
105,000 23,000 33,900 27,500 30,000	CPT CORP. CRAFTMATIC CONTOUR INDS. CRAY RESEARCH INC CRAY RESEARCH INC CRAY RESEARCH INC SUB-TOTAL	NWNB LIEBER ALGER ALLIANCE HELLMAN 91,400 SHARES	367,500 109,250 3,445,088 2,794,688 3,048,750 9,288,525
1,000 9,000 27,500 30,500 55,000	CROWN CRAFTS INC CRYSTAL BRANDS INC CSX CORPORATION CSX CORPORATION CSX CORPORATION SUB-TOTAL	LIEBER NWNB F.L.A. NWNB INTERNAL MANAGED FUN 113,000 SHARES	58,500 193,500 959,063 1,063,688 1,918,125 3,940,875
10,000 12,700 15,000 80,000 3,500 33,000 15,000 56,300 4,900 40,900	CTS CORP CUBIC CORP CULLUM COS INC DAMON CORP. DART GROUP DATA GENERAL CORP. DATA SCOPE CORP DATAPRODUCTS CORP DAYTON-HUDSON CORP. DAYTON-HUDSON CORP. SUB-TOTAL	NWNB LIEBER ALGER LIEBER RMA LIEBER NWNB NWNB INTERNAL MANAGED FUN 45,800 SHARES	253,750 257,175 470,625 1,630,000 588,000 1,018,875 551,250 633,375 248,063 2,070,563 2,318,625
95,000	DEERE & COMPANY	BEUTEL	2,695,625

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
11,300	DEERE & COMPANY SUB-TOTAL	NWNB 106,300 SHARES	\$ 320,638 3,016,263
12,400 33,900 10,000 60,000 25,800 36,000 6,500 51,000 24,000 30,000 6,800	DESOTO INC DETROIT EDISON CO DICEON ELECTRONICS INC DIEBOLD INC. DIGITAL EQUIPMENT CORP. SUB-TOTAL	NWNB NWNB LIEBER BMI ALGER ALLIANCE F.L.A. HELLMAN IDS IAI RMA 180,100 SHARES	491,350 550,875 375,000 3,285,000 4,227,975 5,899,500 1,065,188 8,357,625 3,933,000 4,916,250 1,114,350 29,513,888
79,000 35,000 10,000	DISNEY WALT CORP DISNEY WALT CORP DISNEY WALT CORP SUB-TOTAL	ALLIANCE IDS LIEBER 124,000 SHARES	5,707,750 2,528,750 722,500 8,959,000
42,100 33,000 40,800 35,000 60,000	DOW CHEMICAL COMPANY SUB-TOTAL	ALGER ALLIANCE F.L.A. IDS IAI 210,900 SHARES	3,625,863 2,842,125 3,513,900 3,014,375 5,167,500 18,163,763
60,000 39,000 41,100 37,700 48,000 20,000	DRESSER INDUSTRIES DSC COMMUNICATIONS CORP DU PONT EI DENEMOURS DUKE POWER CO. NC DUN & BRADSTREET COS INC DUN & BRADSTREET COS INC SUB-TOTAL	IDS INTERNAL MANAGED FUN F.L.A. INTERNAL MANAGED FUN IDS IAI 68,000 SHARES	1,875,000 297,375 4,932,000 1,682,363 3,036,000 1,265,000 4,301,000
45,000 15,000 30,000 13,000 34,200 22,000 15,500 18,000 15,700 42,600 39,000	DUQUESNE LT CO DYNATECH CORP E Z EM INC E.F. HUTTON GP. INC. EASTERN GAS & FUEL ASSN EASTMAN KODAK CO. EDISON BROS STORES INC EDUCATIONAL COMP. CORP. EL PASO ELEC CO ELECTRO BIOLOGY INC EMERSON ELECTRIC	NWNB LIEBER LIEBER LIEBER NWNB IAI NWNB LIEBER NWNB ALLIANCE	540,000 457,500 435,000 495,625 931,950 1,894,750 569,625 236,250 266,900 197,025 4,231,500

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
8,300	EMERSON ELECTRIC SUB-TOTAL	IAI \$ 47,300 SHARES	900,550 5,132,050
4,500 35,000 10,300 6,800 25,000 14,500	EMHART CORP VA ENERGY FACTORS INC EXXON CORPORATION EXXON CORPORATION EXXON CORPORATION EXXON CORPORATION SUB-TOTAL	NWNB NWNB ALGER F.L.A. IDS RMA 56,600 SHARES	201,375 297,500 960,475 634,100 2,331,250 1,352,125 5,277,950
21,500 35,000 25,000	FARAH MANUFACTURING FARM FRESH INC FARM FRESH INC SUB-TOTAL	NWNB LIEBER NWNB 60,000 SHARES	338,625 411,250 293,750 705,000
39,000 28,100	FEDERAL EXPRESS CORP. FEDERAL EXPRESS CORP. SUB-TOTAL	HELLMAN INTERNAL MANAGED FUN 67,100 SHARES	2,622,750 1,889,725 4,512,475
55,000 40,000	FEDERAL NATL MORTGAGE ASS FEDERAL NATL MORTGAGE ASS SUB-TOTAL		2,138,125 1,555,000 3,693,125
34,100 13,200 10,000 75,100 15,000 15,000 10,000 93,000 25,000 52,900	FEDERAL PAPER BRD INC FEDERAL SIGNAL CORP. FEDERAL-MOGUL CORP FEDERATED GROUP INC FHP INTERNATIONAL CORP FIRST AM. CORP TENN. FIRST AMER BK CORP FIRST BANK SYSTEM FIRST BANK SYSTEM FIRST BANK SYSTEM SUB-TOTAL	RMA NWNB NWNB NWNB LIEBER LIEBER LIEBER ALLIANCE IAI INTERNAL MANAGED FUN 170,900 SHARES	1,611,225 310,200 450,000 328,563 168,750 420,000 445,000 3,138,750 843,750 1,785,375 5,767,875
21,100 2,800 10,328 14,600 51,300 30,800	FIRST CHICAGO CORP FIRST EMPIRE ST CORP FIRST FIDELITY BANCORP FIRST INTERST BANCORP RTS FIRST INTERST. BANCORP FIRST INTERST. BANCORP SUB-TOTAL	NWNB LIEBER LIEBER LIEBER BEUTEL INTERNAL MANAGED FUN 82,100 SHARES	622,450 260,400 444,104 21,900 3,065,175 1,840,300 4,905,475
8,000 12,900 12,000	FIRST JERSEY NAT'L. CO. FIRST REPUBLICBANK CORP FIRST SVGS. BANK FLORIDA	LIEBER NWNB LIEBER	444,000 299,925 471,000

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
20,000 5,400 10,800 10,000 65,000 58,500 5,800 19,200 50,000 50,500 40,000 25,000	FLORIDA FED. S & L FLORIDA ROCK & TANK LINES FLORIDA ROCK INDS. FLOWERS INDUSTRIES FLUOR CORP FMC CORP NEW FOOTE CONE & BELDING COMM FORD MOTOR CO. SUB-TOTAL	LIEBER NWNB IDS INTERNAL MANAGED FUN	\$ 295,000 63,450 278,100 271,250 1,145,625 2,010,938 320,450 1,900,800 4,950,000 4,999,500 3,960,000 2,475,000 18,285,300
37,000 4,700 19,300 97,000	FORMICA CORP FORT HOWARD PAPER CO. FPL GROUP INC. FPL GROUP INC. SUB-TOTAL	F.L.A. NWNB NWNB INTERNAL MANAGED FUN 116,300 SHARES	434,750 252,038 607,950 3,055,500 3,663,450
42,487 75,300 30,000	G & K SERVICES INC. GAF CORP GAF CORP SUB-TOTAL	LIEBER F.L.A. IAI 105,300 SHARES	786,010 4,009,725 1,597,500 5,607,225
79,000 20,000 11,250 10,000 41,300 38,500	GANNETT INC. GANTOS INC GATEWAY BK SOUTH NORWALK GENCORP GENENTECH INC GENENTECH INC SUB-TOTAL	ALLIANCE LIEBER LIEBER BMI ALGER HELLMAN 79,800 SHARES	4,029,000 410,000 202,500 1,030,000 1,652,000 1,540,000 3,192,000
23,000 68,000 22,000 66,000 20,900	GENERAL DYNAMICS GENERAL ELECTRIC CO. GENERAL ELECTRIC CO. GENERAL ELECTRIC CO. GENERAL ELECTRIC CO. SUB-TOTAL	INTERNAL MANAGED FUN ALLIANCE IDS IAI RMA 176,900 SHARES	1,535,250 3,697,500 1,196,250 3,588,750 1,136,438 9,618,938
75,000 1,400 100,200	GENERAL INSTRUMENT CORP GENERAL INSTRUMENT CORP GENERAL INSTRUMENT CORP SUB-TOTAL	BMI F.L.A. RMA 176,600 SHARES	2,793,750 52,150 3,732,450 6,578,350
80,100 10,000	GENERAL MILLS INC. GENERAL MILLS INC.	F.L.A. IAI	4,455,563 556,250

NO. OF SHARES	SECURITY	ADVISOR		MARKET VALUE
	SUB-TOTAL	90,100 SHARES		5,011,813
41,500 30,000 20,000 16,300 22,600	GENERAL MOTORS CORP. SUB-TOTAL	BEUTEL HELLMAN IDS NWNB INTERNAL MANAGED FU 130,400 SHARES	\$ JN	3,428,938 2,478,750 1,652,500 1,346,788 1,867,325 10,774,300
60,000 41,100	GENERAL RE CORP. GENERAL RE CORP. SUB-TOTAL	ALLIANCE HELLMAN 101,100 SHARES		3,255,000 2,229,675 5,484,675
17,200 212,000 59,600 50,400	GENERAL SIGNAL CORP. GENRAD INC. GEORGIA GULF CORP GEORGIA GULF CORP SUB-TOTAL	NWNB BEUTEL F.L.A. RMA 110,000 SHARES		847,100 2,676,500 2,279,700 1,927,800 4,207,500
23,300 22,000 7,100 21,800 33,000 28,000 37,700	GEORGIA PACIFIC CORP. GIANT FOODS INC GILLETTE COMPANY GLAXO HLDGS PLC GODFREY COMPANY GOODRICH (B.F.) GOODRICH (B.F.) SUB-TOTAL	F.L.A. LIEBER F.L.A. RMA LIEBER HELLMAN RMA 65,700 SHARES		1,022,288 737,000 270,688 580,425 1,097,250 1,438,500 1,936,838 3,375,338
26,700 59,400 62,000 6,000 17,800 18,500 43,875	GOODY PRODS INC GR. WESTERN FIN'L GREAT NORTHN NEKOOSA CORP GREYHOUND CORP. GRUMMAN CORP. GTE CORP. GTE CORP. SUB-TOTAL	LIEBER RMA ALLIANCE NWNB NWNB NWNB INTERNAL MANAGED FOR 62,375 SHARES	UN	570,713 1,210,275 2,604,000 244,500 456,125 712,250 1,689,188 2,401,438
45,000 10,000 11,250 16,000 8,400	GULF & WESTERN INDUS. HANDLEMAN CO. HARPER GROUP HARTMARX CORP HARTMARX CORP SUB-TOTAL	ALLIANCE NWNB LIEBER LIEBER NWNB 24,400 SHARES		3,825,000 290,000 149,063 466,000 244,650 710,650
47,300 54,500 75,000	HASBRO INC. HECHINGER CO CL B CV HEEKIN CAN INC	RMA RMA BMI		1,176,588 1,226,250 1,987,500

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
32,500 12,500 48,700 40,000 11,300 125,000 10,712 45,200 28,000 200,000 160,000 146,000	HERCULES INC. HERITAGE ENTERTAINMENT IN HEWLETT PACKARD CO. HIMONT INC HITACHI LTD HOLIDAY CORP HOLMES D.H. & CO. HOME DEPOT INC. HOME FED SVGS & LN ASSN HOME GROUP INC HOME GROUP INC HOME GROUP INC SUB-TOTAL	HELLMAN LIEBER F.L.A. IDS RMA BMI LIEBER RMA LIEBER BEUTEL BMI HELLMAN 506,000 SHARES	\$ 2,055,625 103,125 2,976,788 1,780,000 930,838 3,046,875 224,952 1,525,500 294,000 3,950,000 3,160,000 2,883,500 9,993,500
7,400 2,500 25,900	HONDA MOTORS NEW HONEYWELL INC. HONEYWELL INC. SUB-TOTAL	RMA NWNB INTERNAL MANAGED FU 28,400 SHARES	834,350 206,250 UN 2,136,750 2,343,000
25,000 134,100 4,100 50,900	HORN & HARDART CO HOSPITAL CORP. OF AMER. HOSPITAL CORP. OF AMER. HOSPITAL CORP. OF AMER. SUB-TOTAL	NWNB BEUTEL NWNB INTERNAL MANAGED FU 189,100 SHARES	309,375 6,218,888 190,138 UN 2,360,488 8,769,513
60,000 31,700	HOUSEHOLD INTL. HOUSEHOLD INTL. SUB-TOTAL	BMI INTERNAL MANAGED FO 91,700 SHARES	3,180,000 UN 1,680,100 4,860,100
21,500 47,700	HOUSTON INDUSTRIES INC. HOUSTON INDUSTRIES INC. SUB-TOTAL	NWNB INTERNAL MANAGED FU 69,200 SHARES	714,875 UN 1,586,025 2,300,900
24,000 58,300 32,900 78,700	HOWARD SVGS BK LIVINGSTON HUFFMAN KOOS INC HUMANA INC. HUMANA INC. SUB-TOTAL	LIEBER BMI NWNB INTERNAL MANAGED FO 111,600 SHARES	519,000 480,975 847,175 UN 2,026,525 2,873,700
60,000 9,600 7,500 53,100 28,250 26,500 68,000 99,500	HUNT J.B. ILLINOIS POWER CORP INDIANA NATL CORP INLAND STEEL IND. INC. INSILCO CORP. INTEGRATED DEVICE TECH. INTEL CORP. INTEL CORP.	IDS NWNB LIEBER ALGER NWNB RMA ALGER ALLIANCE	1,425,000 258,000 294,375 1,393,875 663,875 354,438 2,992,000 4,378,000

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
	SUB-TOTAL	167,500 SHARES	7,370,000
18,100 53,900 43,700 26,400 4,600 16,100 25,300 29,000 51,200 55,000 18,000 15,000 6,300 22,200 31,600	INTERCO INTERGRAPH CORP. INTERLEAF INC INTL MINERALS & CHEM. INTL. ALUMINUM CORP. INTL. BUSINESS MACHINES	NWNB RMA ALGER F.L.A. LIEBER ALGER ALLIANCE BEUTEL F.L.A. HELLMAN IDS IAI LIEBER NWNB RMA 269,700 SHARES	\$ 821,288 1,212,750 693,738 1,102,200 93,150 2,616,250 4,111,250 4,712,500 8,320,000 8,937,500 2,925,000 2,437,500 1,023,750 3,607,500 5,135,000 43,826,250
33,200 50,000	INTL. PAPER CO. INTL. PAPER CO. SUB-TOTAL	F.L.A. IDS 83,200 SHARES	1,610,200 2,425,000 4,035,200
85,000 30,000	ITT CORP ITT CORP SUB-TOTAL	BEUTEL HELLMAN 115,000 SHARES	4,993,750 1,762,500 6,756,250
15,000	IU INTL CORP JAMES RIV CORP VA JEFFERSON BANKSHRS. VA. JEFFERSON PILOT CORP. JOHNSON & JOHNSON JOHNSON CONTROLS K MART CORPORATION K MART CORPORATION K MART CORPORATION SUB-TOTAL	LIEBER IAI LIEBER NWNB RMA NWNB BEUTEL LIEBER NWNB 135,750 SHARES	462,500 502,500 132,750 230,400 1,855,875 514,750 4,436,250 633,750 665,438 5,735,438
43,000 20,000	KELLWOOD CO. KERR MCGEE CORP. KIDDE INC. KOPPERS INC KRAFT INC. KRAFT INC. SUB-TOTAL	BMI INTERNAL MANAGED FUN NWNB RMA ALLIANCE IDS 63,000 SHARES LIEBER	1,470,000 2,109,450 82,025 2,160,063 2,585,375 1,202,500 3,787,875
27,332	LADD FURNITURE	DIEDER	500,500

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
75,000 17,400 8,000 22,000 60,400 25,100 96,600	LAIDLAW TRANSP. CL B LEE ENTERPRISES INC LIBERTY FINL GP. INC LILLY ELI & CO LILLY ELI & CO WT LIN BROADCAST. CORP. LIN BROADCAST. CORP. SUB-TOTAL	IDS LIEBER LIEBER IDS F.L.A. ALGER ALLIANCE 121,700 SHARES	\$ 1,115,625 474,150 336,000 2,065,250 2,166,850 1,044,788 4,020,975 5,065,763
4,500 20,400 57,800 80,000	LINCOLN NATL CORP IND LITTON INDS INC. LIZ CLAIBORNE INC. LIZ CLAIBORNE INC. SUB-TOTAL	NWNB INTERNAL MANAGED FUN ALGER IDS 137,800 SHARES	230,625 1,864,050 2,008,550 2,780,000 4,788,550
82,500 34,400	LOCKHEED AIRCRAFT CORP LOCKHEED AIRCRAFT CORP SUB-TOTAL	BEUTEL INTERNAL MANAGED FUN 116,900 SHARES	4,259,063 1,775,900 6,034,963
16,400 19,500 154,800 100,000 64,000	LOEWS CORP LOMAS & NETTLETON FINL LONG ISLAND LTG CO LOTUS LOTUS SUB-TOTAL	F.L.A. LIEBER INTERNAL MANAGED FUN IDS RMA 164,000 SHARES	1,074,200 548,438 1,431,900 2,925,000 1,872,000 4,797,000
75,700 76,000 76,300	LOUISIANA PAC. CORP. LSI LOGIC CORP. LSI LOGIC CORP. SUB-TOTAL	RMA HELLMAN RMA 152,300 SHARES	2,356,163 779,000 782,075 1,561,075
100,000 35,000 34,600 41,200 14,000 14,400	LUCKY STORES LYPHOMED INC M.D.C. HOLDINGS, INC MACMILLAN BLOEDEL LTD MACMILLAN BLOEDEL LTD MACMILLAN BLOEDEL LTD SUB-TOTAL	BMI ALGER NWNB ALGER F.L.A. RMA 69,600 SHARES	3,037,500 848,750 410,875 829,150 281,750 289,800 1,400,700
10,000 51,000 27,500	MANITOWOC INC MANPOWER INC MANPOWER INC SUB-TOTAL	NWNB IAI RMA 78,500 SHARES	205,000 2,792,250 1,505,625 4,297,875
48,900 52,000	MARION LABS INC MARION LABS INC SUB-TOTAL	ALGER IDS 100,900 SHARES	1,760,400 1,872,000 3,632,400

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
63,000 60,000 75,000	MARRIOTT CORP. MARRIOTT CORP. MARRIOTT CORP. SUB-TOTAL	ALGER IDS IAI 198,000 SHARES	\$ 2,464,875 2,347,500 2,934,375 7,746,750
3,000 38,600 60,000 13,600 6,500 117,200 23,900 145,692 27,200 2,000 70,000 9,000	MARSH & MCCLENNAN MARTIN MARIETTA MASCO CORP MATERIAL SCIENCES CORP MATSUSHITA EL. IND. MATTEL INC MAXICARE HEALTH PLANS MAXUS ENERGY CORP MAY DEPT. STORES CO. MAYFAIR SUPER MKTS INC MCA INC. SUB-TOTAL	LIEBER INTERNAL MANAGED FUN IDS LIEBER RMA ALGER NWNB BMI LIEBER LIEBER ALLIANCE LIEBER 79,000 SHARES	186,375 1,785,250 2,122,500 302,600 996,125 1,201,300 340,575 1,985,054 1,292,000 71,500 3,395,000 436,500 3,831,500
86,700 40,000 21,000 45,000	MCDERMOTT INTL INC MCDONALDS CORP. MCDONALDS CORP. MCDONALDS CORP. SUB-TOTAL	RMA ALLIANCE IDS IAI 106,000 SHARES	2,590,163 2,120,000 1,113,000 2,385,000 5,618,000
200,000 46,300 306,400	MCI COMMUNICATION MCI COMMUNICATION MCI COMMUNICATION SUB-TOTAL	ALLIANCE NWNB INTERNAL MANAGED FUN 552,700 SHARES	1,500,000 347,250 2,298,000 4,145,250
39,100 18,000 35,000 18,500 32,700	MCORP MEDITRUST MEDTRONIC INC. MELLON BANK CORP MELLON BANK CORP SUB-TOTAL	NWNB IAI NWNB INTERNAL MANAGED FUN 51,200 SHARES	361,675 344,250 3,272,500 659,063 1,164,938 1,824,000
13,000 22,600 27,000 12,000 20,000 10,000	MERCHANTS NATL CORP MERCK & COMPANY INC. SUB-TOTAL	LIEBER ALGER ALLIANCE HELLMAN IAI RMA 91,600 SHARES	351,000 3,853,300 4,603,500 2,046,000 3,410,000 1,705,000 15,617,800
4,723 27,500	MERIDIAN BNCP PFD 2.50 METRO MOBILE CTS INC	LIEBER RMA	213,716 721,875

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
39,000 15,000 25,000 121,000 24,000 15,000	MFRS. HANOVER CORP. MICHIGAN NATL CORP MICROSEMI CORP MIDDLE SOUTH UTILS INC MILLER HERMAN INC. MILLER HERMAN INC. SUB-TOTAL	INTERNAL MANAGED FUN \$ LIEBER LIEBER INTERNAL MANAGED FUN LIEBER NWNB 39,000 SHARES	1,740,375 626,250 234,375 1,285,625 555,000 346,875 901,875
30,000 65,000	MILLIPORE CORP. MILLIPORE CORP. SUB-TOTAL	ALGER BMI 95,000 SHARES	1,203,750 2,608,125 3,811,875
36,000 30,000 40,000 40,100	MINNESOTA MNG & MFG CO MINSTAR INC MOBIL CORPORATION MOBIL CORPORATION SUB-TOTAL	IDS IAI IDS INTERNAL MANAGED FUN 80,100 SHARES	2,551,500 720,000 2,035,000 2,040,088 4,075,088
23,500 17,700 256 4,700 52,700 59,000 33,000 60,000	MONSANTO CO.  MOORE CORP LTD  MORGAN J P & COMPANY INC.  MORRISON KNUDSEN CORP  MOTOROLA INC.  MOTOROLA INC.  MOTOROLA INC.  MOTOROLA INC.  SUB-TOTAL	INTERNAL MANAGED FUN NWNB IDS NWNB ALGER ALLIANCE HELLMAN IDS 204,700 SHARES	1,965,188 451,350 12,256 230,888 2,852,388 3,193,375 1,786,125 3,247,500 11,079,388
25,000 21,500 28,125 18,500 66,950	NATIONAL DISTILLERS & CHE NATL PRESTO NATL. COMPUTER SYSTEMS NATL. MEDICAL ENTER. INC. NATL. MEDICAL ENTER. INC. SUB-TOTAL	NWNB LIEBER	1,696,875 704,125 390,234 506,438 1,832,756 2,339,194
270,000 7,800 71,300 47,800 100,000 25,000	NATL. SEMICONDUCTOR NCH CORP NCNB CORP. NCR CORP. NETWORK SYSTEMS CORP. NETWORK SYSTEMS CORP. SUB-TOTAL	BEUTEL NWNB INTERNAL MANAGED FUN ALGER IDS NWNB 125,000 SHARES	3,510,000 265,200 1,844,888 3,561,100 987,500 246,875 1,234,375
25,500 46,500 130,000 16,400	NEW YORK ST ELEC & GAS C NEW YORK TIMES CO NEWMONT MINING NEWPORT CORP	NWNB ALGER BEUTEL NWNB	701,250 2,185,500 6,126,250 192,700

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
33,600 102,900	NIAGARA MOHAWK PWR CORP NIAGARA MOHAWK PWR CORP SUB-TOTAL	NWNB INTERNAL MANAGED FUN 136,500 SHARES	\$ 558,600 1,710,713 2,269,313
52,900 17,400 6,400 100,000 12,000	NO. STS. POWER CO. MINN. NORFOLK SOUTHERN CORP NORTON CO NOVO INDS-ADR NOVO INDS-ADR SUB-TOTAL	INTERNAL MANAGED FUN NWNB NWNB BMI NWNB 112,000 SHARES	1,666,350 574,200 296,000 3,950,000 474,000 4,424,000
20,500 22,000 30,000 37,700 105,900 8,750 60,000 50,000 43,100 23,100	OWENS CORNING FIBERGLAS (OXFORD INDS INC	LIEBER LIEBER IDS ALGER INTERNAL MANAGED FUN LIEBER RMA IDS ALGER NWNB	312,625 445,500 2,100,000 1,418,463 2,832,825 267,969 2,017,500 1,250,000 1,002,075 381,150
67,000 43,700 17,900 48,600 10,000 210,600 10,000 12,000 77,200 80,000 4,400	PACIFIC GAS & ELEC. CO. PACIFIC TELESIS GP. PACIFICARE HEALTH SYS I PACIFICORP PACO PHARMACEUTICAL SVCS PAN AM CORPORATION PANHANDLE EASTN CORP PAR TECHNOLOGY PAYLESS CASHWAYS PENN CENT CORP PENN CENT CORP SUB-TOTAL	INTERNAL MANAGED FUN NWNB NWNB INTERNAL MANAGED FUN LIEBER ALGER LIEBER LIEBER ALGER BEUTEL NWNB 84,400 SHARES	1,348,375 1,158,050 196,900 1,743,525 168,750 1,131,975 312,500 144,000 1,794,900 4,630,000 254,650 4,884,650
56,400 46,800	PENNEY J.C. INC. PENNEY J.C. INC. SUB-TOTAL	ALGER RMA 103,200 SHARES	2,961,000 2,457,000 5,418,000
41,600 65,900 80,500 34,200 36,000 10,000 99,400 55,000 20,000	PEOPLES ENERGY CORP PEPSICO INCORPORATED PERCEPTION TECHNOLOGY COR PERKIN ELMER PERMIAN BASIN RTY TR PFIZER INCORPORATED PHILADELPHIA ELEC. CO. PHILIPS N.V. PIC N SAVE CORP.	NWNB ALGER BMI RMA NWNB LIEBER INTERNAL MANAGED FUN RMA IAI	847,600 2,372,400 1,348,375 1,081,575 265,500 720,000 2,099,825 1,375,000 487,500

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE	
14,000 2,254 14,900 9,000 30,000 100,000	PICCADILLY CAFETERIAS INC PIEDMONT AVIATION PIONEER HI-BRED INTL. PLANTRONICS INC POLAROID CORP. POLAROID CORP. SUB-TOTAL	NWNB LIEBER NWNB LIEBER ALGER BMI 130,000 SHARES	\$ 287,0 156,0 543,8 200,2 1,151,2 3,837,5 4,988,7	090 350 250 250
40,000 11,900 33,200	PRESTON CORP PRICE CO PRICE CO SUB-TOTAL	NWNB F.L.A. RMA 45,100 SHARES	670,0 534,0 1,489,8 2,023,8	)13 350
41,900 25,300 60,000 24,000 26,900 34,700 44,700 18,000 10,100	PRIME MEDICAL SERVICES IN PRIME MTR INNS INC PROGRESSIVE CORP OHIO PROTECTIVE LIFE CORP PROVIDENT LIFE & ACC INS PUGET SOUND PWR & LT CO QUAKER OATS CO QUAKER ST OIL REFNG CORP QUAKER ST OIL REFNG CORP SUB-TOTAL	NWNB RMA ALLIANCE LIEBER NWNB NWNB F.L.A. LIEBER NWNB 28,100 SHARES	183,3 1,053,1 1,800,0 333,0 544,7 694,0 2,324,4 398,2 223,4	113 000 000 725 000 400 250
16,000 16,700 14,900 23,100	QUANTUM CORP. RAYTHEON COMPANY RAYTHEON COMPANY RAYTHEON COMPANY SUB-TOTAL	NWNB ALGER RMA INTERNAL MANAGED FU 54,700 SHARES	258,0 1,260,8 1,124,9 JN 1,744,0 4,129,8	350 950 950
50,000 31,500 30,000 46,800 5,500 68,400 9,300 37,000	REEBOK INTERNATIONAL LTD RENT A CENTER REUTERS HOLDINGS PLC RHODES INC ROCHESTER TEL CORP ROCKWELL INTL CORP ROHR INDS INC ROHR INDS INC SUB-TOTAL	IDS LIEBER IDS NWNB NWNB INTERNAL MANAGED FUNWNB RMA 46,300 SHARES	2,106,2 685,1 2,478,7 807,3 243,3 JN 1,846,8 274,3 1,091,5	125 750 300 375 300 350 500
128,000 20,000 16,000 16,700 37,700 7,000 76,000	ROPER CORP ROSES STORES INC ROSES STORES INC. ROYAL DUTCH PET. GLDRS. RUBBERMAID INC RUSS BERRIE & CO. RUSSELL CORP	BMI LIEBER LIEBER INTERNAL MANAGED FU IAI LIEBER IDS	3,168,0 370,0 300,0 JN 2,204,4 1,126,2 259,8 1,292,0	000 000 400 288 875

NO. OF SHARES	SECURITY	ADVISOR		MARKET VALUE
11,900 50,000 45,150	RYDER SYSTEMS INC. RYDER SYSTEMS INC. RYDER SYSTEMS INC. SUB-TOTAL	F.L.A. IAI INTERNAL MANAGED 107,050 SHARES	\$ FUN	431,375 1,812,500 1,636,688 3,880,563
27,000 45,400	SALOMON INC SALOMON INC SUB-TOTAL	NWNB INTERNAL MANAGED 1 72,400 SHARES	FUN	887,625 1,492,525 2,380,150
20,000 22,100 6,000 36,000 34,000 189,600 11,300	SANFORD CORP ILL SAVANNAH FOODS & INDS INC SCHEIB EARL INC SCHLUMBERGER LTD SCOTTYS INC SEA CONTAINERS LTD. SEA CONTAINERS LTD. SUB-TOTAL	LIEBER NWNB LIEBER IDS NWNB BEUTEL NWNB 200,900 SHARES		545,000 596,700 103,500 1,647,000 467,500 4,171,200 248,600 4,419,800
10,000 70,000 8,900 26,000	SEALED POWER CORP SEARS ROEBUCK & COMPANY SEARS ROEBUCK & COMPANY SEARS ROEBUCK & COMPANY SUB-TOTAL	NWNB BEUTEL F.L.A. NWNB 104,900 SHARES		360,000 3,543,750 450,563 1,316,250 5,310,563
17,500 47,100	SECURITY PACIFIC CORP. SECURITY PACIFIC CORP. SUB-TOTAL	NWNB INTERNAL MANAGED 64,600 SHARES	FUN	735,000 1,978,200 2,713,200
300,000 36,600 25,500 9,000 52,400	SENSORMATIC ELECTRS CORP SERVICE MERCHANDISE SEVEN OAKS INTL INC SHARED MED. SYSTEMS CORP. SHARED MED. SYSTEMS CORP. SUB-TOTAL	BMI NWNB NWNB NWNB INTERNAL MANAGED 61,400 SHARES	FUN	3,525,000 288,225 309,188 252,000 1,467,200 1,719,200
60,000 49,500 17,000 5,000 14,900 10,000 56,500	SIGMA ALDRICH SILICONE SYSTEMS INC. SINGER CO. SMITHKLINE-BECKMAN CORP. SNYDER OIL PARTNERS SONAT INC. SONAT INC. SUB-TOTAL	IAI NWNB LIEBER NWNB NWNB NWNB INTERNAL MANAGED 66,500 SHARES	FUN	2,670,000 488,813 641,750 298,750 149,000 347,500 1,963,375 2,310,875
58,600 102,000 64,900	SOUTHERN CALIF. EDISON SOUTHERN CO SOUTHERN CO	ALGER IAI INTERNAL MANAGED	FUN	1,801,950 2,473,500 1,573,825

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
	SUB-TOTAL	166,900 SHARES	4,047,325
5,000 40,000 33,000	SOUTHINGTON SVGS BK CONN SOUTHLAND CORP. SOUTHLAND CORP. SUB-TOTAL	LIEBER \$ BEUTEL INTERNAL MANAGED FUN 73,000 SHARES	77,500 2,680,000 2,211,000 4,891,000
18,200 46,800 13,600 9,400 40,400 44,000	SOUTHMARK CORP. SOUTHWESTERN BELL CORP. SPRINGS INDS INC SQUARE D CO SQUIBB CORP. SQUIBB CORP. SUB-TOTAL	NWNB INTERNAL MANAGED FUN LIEBER NWNB ALGER HELLMAN 84,400 SHARES	170,625 1,819,350 453,900 500,550 3,504,700 3,817,000 7,321,700
25,000 22,000 11,500 6,060 7,000 5,000 20,800	ST. PAUL COS. INC. STALEY CONTL INC STANDARD BRANDS PAINT CO STANDARD OIL CO WTS STATEWIDE BANCORP NJ STERLING DRUG INC STERLING DRUG INC SUB-TOTAL	HELLMAN NWNB NWNB RMA LIEBER NWNB RMA 25,800 SHARES	1,143,750 627,000 271,688 0 166,250 286,875 1,193,400 1,480,275
16,000 10,000 20,500 11,025 55,000 37,500 30,200 11,600 19,000 75,000 23,100 1,413 24,000 40,000 44,000 60,000 31,600	SUN COMPANY INC SUNAIR ELEC. INC. SUNDSTRAND CORP SUNRISE MED INC. SUPER FOOD SVCS INC SUPERMARKETS GEN CORP		308,000 686,250 294,688 496,125 4,365,625 450,000 1,981,875 72,500 1,085,375 693,750 609,263 55,814 510,000 1,720,000 1,720,000 1,892,000 2,580,000 1,358,800 7,550,800
60,000 43,200 72,500 35,400	TANDEM COMPUTERS INC TCBY ENTERPRISES INC. TELE COMMUNICATIONS INC TELE COMMUNICATIONS INC	IAI RMA ALGER F.L.A.	1,897,500 702,000 2,555,625 1,247,850

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
45,000	TELE COMMUNICATIONS INC SUB-TOTAL	IDS \$ 152,900 SHARES	1,586,250 5,389,725
153,100 8,500 96,000 52,400	TELERATE INC TENNECO INC. TEXACO INC. TEXACO INC. SUB-TOTAL	F.L.A. NWNB BEUTEL INTERNAL MANAGED FUN 148,400 SHARES	6,659,850 417,563 3,888,000 2,122,200 6,010,200
11,900 35,000	TEXAS AIR CORP TEXAS AIR CORP SUB-TOTAL	F.L.A. HELLMAN 46,900 SHARES	443,275 1,303,750 1,747,025
17,100 20,000 50,900	TEXAS INSTRUMENTS TEXAS UTILITIES CO. TEXAS UTILITIES CO. SUB-TOTAL	RMA NWNB INTERNAL MANAGED FUN 70,900 SHARES	1,040,963 645,000 1,641,525 2,286,525
10,000 24,460 60,000 50,000 29,000 90,000 49,400 93,750 68,000 46,000	TEXTRON INC THOMAS INDS INC TIE COMMUNICATIONS TJX COS INC TODD SHIPYARDS CORP TONKA TOYS R US SUB-TOTAL	NWNB NWNB NWNB BMI NWNB BMI ALGER ALLIANCE HELLMAN IDS 257,150 SHARES	303,750 480,028 262,500 1,237,500 286,375 1,473,750 1,790,750 3,398,438 2,465,000 1,667,500 9,321,688
63,700 0 14,500 37,300 20,300 20,300 60,000 48,000 60,000	TRANS WORLD AIRLINES TRANS WORLD AIRLINES INC TRANSAMERICA CORP TRANSCANADA PIPELINES LTD TRANSCO ENERGY CO. TRAVELERS CORP. TRIANGLE INDS INC TRIBUNE COMPANY TRIBUNE COMPANY SUB-TOTAL	NWNB	1,887,113 18 587,250 494,225 738,413 913,500 2,160,000 1,932,000 2,415,000 4,347,000
62,400 12,600	TRW INC. TRW INC. SUB-TOTAL	ALGER NWNB 75,000 SHARES	3,283,800 663,075 3,946,875
20,000 70,600	TURNER EQUITY INVS INC TW SERVICES INC	NWNB RMA	150,000 1,332,575

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
26,700 19,500 32,200	U.S. HEALTHCARE INC. U.S. WEST CORP U.S. WEST CORP SUB-TOTAL	NWNB NWNB INTERNAL MANAGED FUN 51,700 SHARES	383,813 1,026,188 1,694,525 2,720,713
84,000 1,700 67,500 30,000 1,700	ULTIMATE CORP. UNILEVER N V UNION CAMP CORP. UNISYS CORP. UNISYS CORP. SUB-TOTAL	ALGER LIEBER IDS IDS INTERNAL MANAGED FUN 31,700 SHARES	2,247,000 563,550 2,801,250 3,697,500 209,525 3,907,025
14,200 122,225 8,000 33,600 27,500 61,800	UNITED BKS COLO INC UNITED CABLE TV CORP. UNITED SAVERS BANCORP INC UNITED TECHNOLOGIES CORP. UNITED TELECOM. INC. UNITED TELECOM. INC. SUB-TOTAL	NWNB ALLIANCE LIEBER INTERNAL MANAGED FUN NWNB INTERNAL MANAGED FUN 89,300 SHARES	262,700 3,957,034 202,000 1,755,600 752,813 1,691,775 2,444,588
14,000 80,000 56,000	UNITRODE CORP UNOCAL CORP. UNOCAL CORP. SUB-TOTAL	LIEBER ALLIANCE INTERNAL MANAGED FUN 136,000 SHARES	194,250 3,170,000 2,219,000 5,389,000
115,000 61,500 6,000 27,500 52,000	UNUM CORP UPJOHN COMPANY US AIR GROUP US AIR GROUP US AIR GROUP SUB-TOTAL	BEUTEL ALGER LIEBER RMA INTERNAL MANAGED FUN 85,500 SHARES	2,745,625 2,782,875 284,250 1,302,813 2,463,500 4,050,563
14,900 45,000 15,000 13,900 12,000 350,000 8,820 60,600 60,000	US FIDELITY & GUAR. CO. USG CORP HOLDING CO. USX CORP USX CORP. UTAH POWER & LIGHT CO. I VALERO ENERGY CORP VERMONT FIN'L SVCS WAL-MART STORES INC. WAL-MART STORES INC. SUB-TOTAL	NWNB INTERNAL MANAGED FUN IAI IAI NWNB BMI LIEBER ALLIANCE IDS 120,600 SHARES	564,338 1,541,250 791,250 437,850 286,500 4,068,750 264,600 4,098,075 4,057,500 8,155,575
39,000 35,000 25,600	WARNER COMMUNICATIONS WARNER COMMUNICATIONS WARNER COMMUNICATIONS SUB-TOTAL	HELLMAN IDS RMA 99,600 SHARES	1,360,125 1,220,625 892,800 3,473,550

NO. OF SHARES	SECURITY	ADVISOR	MARKET VALUE
17,200 23,400 89,400 52,000 110,000	WASHINGTON POST B WASHINGTON WTR PWR CO WASTE MANAGEMENT WASTE MANAGEMENT WASTE MANAGEMENT SUB-TOTAL	ALLIANCE NWNB ALGER ALLIANCE IDS 251,400 SHARES	\$ 3,784,000 637,650 3,508,950 2,041,000 4,317,500 9,867,450
6,600 15,000 5,000 17,000 57,600 119,000	WAUSAU PAPER MLS CO WEBB DEL E CORP WEIS MARKETS INC. WELLS FARGO MTG & EQUITY WENDYS INTL INC WENDYS INTL INC SUB-TOTAL	LIEBER NWNB NWNB NWNB NWNB RMA 176,600 SHARES	198,000 307,500 163,125 314,500 561,600 1,160,250 1,721,850
22,000 45,000 50,000	WESTINGHOUSE ELEC. CO. WEYERHEUSER CO. WEYERHEUSER CO. SUB-TOTAL	IDS IDS IAI 95,000 SHARES	1,399,750 2,261,250 2,512,500 4,773,750
11,200 506,250 32,000 170,000 35,700 80,000 35,000	WHITEHALL CORP. WICKES COS INC NEW WILEY JOHN + SON WILLIAMS COMPANIES INC WOOLWORTH F W CO WOOLWORTH F W CO WOOLWORTH F W CO SUB-TOTAL	LIEBER HELLMAN BMI BEUTEL ALGER BEUTEL IDS 150,700 SHARES	225,400 2,214,844 1,352,000 5,843,750 1,901,025 4,260,000 1,863,750 8,024,775
34,700 65,000 2,700	WYMAN-GORDON CO. XEROX CORP XEROX CORP SUB-TOTAL	NWNB BEUTEL NWNB 67,700 SHARES	615,925 5,021,250 208,575 5,229,825
50,000 54,300	YELLOW FREIGHT SYSTEM YELLOW FREIGHT SYSTEM SUB-TOTAL	IDS INTERNAL MANAGED FUN 104,300 SHARES	1,725,000 1,873,350 3,598,350
82,400	ZENITH ELECTRONICS CORP	RMA	2,121,800
TOTAL EQ	UITY PORTFOLIO	\$ ]	1,144,761,593

#### BEUTEL GOODMAN CAPITAL MANAGEMENT

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE	
15,000,000	NATIONAL MED ENTERPRISES	12/04/2004	0.000%	\$ 4,800,000	
TOTAL BON	D PORTFOLIO			\$ 4,800,000	
	FORSTMANN LEFF A	SSOCIATES			
700,000 3,400,000 2,355,000	GENERAL INSTR CORP CV PRICE CO CV U.S.A. TREASURY NOTE	06/15/2012 02/28/2012 05/15/1996	7.250% 5.500% 7.375%	\$ 812,000 3,604,000 2,200,441	
TOTAL BON	D PORTFOLIO			\$ 6,616,441	
HELLMAN JORDAN MANAGEMENT					
17,200,000	U.S.A. TREASURY NOTE	06/30/1989	7.375%	\$ 17,167,664	
TOTAL BON	D PORTFOLIO			\$ 17,167,664	
INVESTMENT ADVISORS INC.					
1,000,000	SUN MICROSYSTEMS CV	02/15/2012	5.250%	\$ 1,165,000	
TOTAL BON	D PORTFOLIO			\$ 1,165,000	
WADDELL & REED					
2,200,000 1,450,000 990,000 120,000 990,000 1,023,000 1,100,000	ANITEC IMAGE TECH. CV LYPHOMED INC CV MAXTOR CORP CV MUNSINGWEAR INC. CV PRICE CO CV PRIME COMPUTER CV SEAGATE TECHNOLOGY CV	03/15/2012 03/15/2012 03/01/2012 10/01/2006 02/28/2012 02/01/2012 05/01/2012	5.875% 5.500% 5.750% 8.000% 5.500% 5.750% 6.750%	\$ 1,936,000 1,326,750 727,650 82,800 1,049,400 1,130,415 1,135,750	
TOTAL BON	D PORTFOLIO			\$ 7,388,765	

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND INVESTMENT ADVISORS ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR					MARKET
VALUE	SECURITY	MATURITY	COUPON		VALUE
965,250	COUPON TREAS RCPT	08/15/1988	0.000%	\$	891,852
769,625	COUPON TREAS RCPT	08/15/1988	0.000%		711,103
427,500	COUPON TREAS RCPT	08/15/1988	0.000%		394,997
1,992,848	FED HM LN POOL # 490001	10/01/1996	8.500%		1,855,840
1,817,576	FED HOME LN PC # 200059	11/01/2001	8.500%		1,692,618
2,000,000	FEDERAL HOME LOAN BANK	03/25/1991	7.750%		1,969,380
1,525,429	FORD MTR CR CO	09/01/1991	7.166%		1,489,200
50,000	INDIANA & MICH ELEC	02/01/1988	3.875%		49,041
1,000,000	MORGAN GTY TR CO NEW YORK	12/01/1987	9.610%		985,880
1,000,000	PRIVATE EPT FDG CORP	10/30/1987	11.750%		1,012,950
831,000	PRIVATE EXPT FDG CORP	11/01/1990	12.350%		856,154
3,500,000	TREASURY INVT GROWTH RCPT	05/15/1988	0.000%		3,295,110
3,000,000	U.S.A. TREASURY NOTE	11/15/1992	10.500%		3,305,610
4,000,000	U.S.A. TREASURY NOTE	05/15/1993	10.125%		4,355,000
3,000,000	U.S.A. TREASURY NOTE	11/15/1990	13.000%		3,444,360
2,000,000	U.S.A. TREASURY NOTE	07/15/1993	7.250%		1,912,500
3,000,000	U.S.A. TREASURY NOTE	10/15/1993	7.125%		2,840,610
3,000,000	U.S.A. TREASURY NOTE	01/15/1994	7.000%		2,815,320
4,700,000	U.S.A. TREASURY NOTES	11/15/1996	7.250%		4,344,539
TOTAL BONI	D PORTFOLIO			\$	38,222,064
-01 0011				₹	55,222,564

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND LEHMAN MANAGEMENT INC. ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
8,500,000	AMOCO CORP	08/01/2007	7.875%	\$ 7,406,985
4,000,000	ATLANTIC RICHFIELD CO	10/15/1989	9.750%	4,103,640
3,000,000	CAROLINA PWR & LT CO	07/01/1996	8.125%	2,800,380
5,394,136	COLLATERALIZED MTG OBLIG	04/01/2009	5.000%	4,423,192
9,097,876	FED HM LN PC # 186428	05/01/2003	6.500%	7,687,705
2,772,491	FED HM LN POOL # 140532	10/01/1996	4.500%	2,408,463
172,672	FED HM LN POOL # 182064	06/01/2011	9.000%	165,225
1,880,232	FEDERAL NATL MTG ASSN STR	02/01/2017	0.000%	961,174
1,030,120	FNMA POOL # 031027	07/01/2016	9.000%	988,267
1,870,486 794,363	FNMA POOL # 031122	08/01/2016	9.000%	1,794,469
192,442	FNMA POOL # 031561 FNMA POOL # 043229	08/01/2016	9.000%	762,080
464,110	FNMA POOL # 043229 FNMA POOL # 043671	05/01/2017 03/01/2017	8.500% 8.500%	179,569 433,066
4,092,037	FNMA POOL # 043871 FNMA POOL # 046957	05/01/2017	8.500%	3,818,362
367,789	FNMA POOL # 047022	05/01/2017	8.500%	343,191
1,024,312	FNMA POOL # 047022	05/01/2017	8.500%	955,806
2,048,781	FNMA POOL # 047802	05/01/2017	8.500%	1,911,759
1,000,000	FORD MTR CR CO	04/01/1997	8.000%	916,310
2,000,000	GENERAL MTRS ACCEP CORP	06/01/1990	8.375%	1,999,860
1,960,505	GNMA POOL # 005671	01/15/2005	7.250%	1,763,807
1,474,382	GNMA POOL # 009004	12/15/2005	7.250%	1,326,457
1,500,000	HELLER FINANCIAL INC	04/01/1993	7.750%	1,429,965
2,000,000	HOME OWNERS SVGS & LN ASS	02/15/1992	7.500%	1,911,800
5,000,000	IBM CR CORP	06/15/1990	9.625%	5,101,600
3,000,000	KNIGHT RIDDER INC	01/15/1992	7.250%	2,860,590
2,000,000	PHH GROUP INC	01/01/1997	8.000%	1,829,820
4,000,000	STANDARD OIL CO OHIO	09/15/1993	8.000%	3,830,720
2,325,000	TEXACO CAP INC	01/15/2000	10.750%	1,987,875
3,825,000	U.S.A. TREASURY NOTE	09/30/1988	11.375%	4,011,469
5,000,000	U.S.A. TREASURY NOTE	12/31/1988		5,235,950
4,800,000	U.S.A. TREASURY NOTE	11/15/1990	9.625%	5,042,976
2,500,000	U.S.A. TREASURY NOTE	03/31/1989	11.250%	2,655,475
2,000,000	U.S.A. TREASURY NOTE	08/15/1990	9.875%	2,111,880 5,694,472
5,600,000 15,200,000	U.S.A. TREASURY NOTE U.S.A. TREASURY NOTE	12/31/1989 02/15/1996	8.375% 8.875%	15,613,288
2,000,000	U.S.A. TREASURY NOTE	05/15/1991	8.125%	2,013,740
21,225,000	U.S.A. TREASURY NOTE	05/15/1996	7.375%	19,832,003
9,600,000	U.S.A. TREASURY NOTE	06/30/1990	7.250%	9,470,976
9,200,000	U.S.A. TREASURY NOTE	06/30/1989	9.625%	9,562,204
13,800,000	U.S.A. TREASURY NOTE	05/15/1989	6.875%	13,662,000
2,000,000	U.S.A. TREASURY NOTE	10/15/1993	7.125%	1,893,740
13,600,000	U.S.A. TREASURY NOTE	11/15/1991	6.500%	12,881,784
17,000,000	U.S.A. TREASURY NOTE	03/31/1991	6.750%	16,378,480
17,500,000	U.S.A. TREASURY NOTE	05/15/1990	7.875%	17,565,625
2,000,000	U.S.A. TREASURY NOTES	11/15/1996	7.250%	1,848,740
2,000,000	XEROX CR CORP	07/01/1990	8.250%	1,998,800
TOTAL BON	D PORTFOLIO			\$ 213,575,739

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND MORGAN STANLEY ASSET ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
10,000,000 36,248,092 14,426,514 9,821,601 9,641,883 22,000,000 30,000,000 35,000,000 20,000,000	CFC-1 GRANTOR TR FED HM LN POOL # 170170 FED HM LN POOL # 274081 FED HM LN POOL # 278917 GMAC 1987-C GRANTOR TR U.S.A. TREASURY NOTE U.S.A. TREASURY NOTE U.S.A. TREASURY NOTE U.S.A. TREASURY NOTE	05/15/1992 06/01/2016 07/01/2016 09/01/2016 05/15/1992 03/31/1991 05/15/1990 06/30/1989 06/30/1991	8.300% \$ 9.000% 7.500% 8.000% 8.350% 6.750% 7.875% 7.875%	10,050,000 34,684,712 12,767,465 8,906,915 9,629,831 21,195,680 30,112,500 34,934,200 19,956,200
TOTAL BON	D PORTFOLIO		\$	182,237,503

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND MILLER ANDERSON ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
2,500,000 2,400,000 3,925,000	BARCLAYS AMERICAN CORPORA BURLINGTON NORTH RR CO CATERPILLAR INC	10/01/2006 11/01/2001	7.875% S 9.250% 8.000%	2,275,944 3,510,559
3,675,000	CHRYSLER CORP	03/01/1997	13.000%	4,302,690
3,850,000	CHRYSLER FIN CORP	11/01/1999	12.750%	4,661,003
1,800,000	CHRYSLER FINL CORP	10/15/1999	13.250%	2,241,342
1,300,000	CITICORP	04/15/1999	9.000%	1,240,551
4,800,000	CITYPLACE CTR EAST CORP	02/15/1995	7.875%	4,439,664
1,300,000	COMERICA INC DOMINION BANKSHARES CORP	05/01/1999	9.750%	1,317,602
1,300,000		06/15/1999	9.625%	1,297,335
1,900,000	EATON CORP	08/15/2006	8.000%	1,744,238
2,236,062	FED HM LN PC # 259082	04/01/2009	8.500%	2,082,332
1,360,449	FED HM LN PC # 270349	08/01/2008	8.000%	1,233,750
921,761	FED HM LN POOL # 140086	04/01/2003	7.250%	806,541
2,238,672	FED HM LN POOL # 18-9540	08/01/2008	8.250%	2,042,788
3,027,940	FED HM LN POOL # 183218	12/01/2006	7.500%	2,679,726
4,063,436	FED HM LN POOL # 252993	06/01/2008	7.750%	3,644,374
1,182,864	FED HM LN POOL # 254898	04/01/2008	7.250%	1,035,006
1,125,488	FED HM LN POOL # 255850	06/01/2015	8.000%	1,020,671
1,220,479	FED HM LN POOL # 256079	07/01/2003	6.750%	1,043,509
3,600,000	FHLMC TBA	04/01/2017	8.000%	3,264,696
4,100,000	FIDELITY FED SVGS & LN AS	04/15/1997	8.500%	3,879,625
1,200,000	FIRST NATL TENN CORP	06/01/1999	10.375%	1,220,232
1,500,000	FLETCHER CHALLENGER	05/15/1997	9.250%	1,485,000
4,651,388	FNMA POOL # 015435	11/01/2010	9.000%	4,462,402
2,100,922	FNMA POOL # 019720	10/01/2008	7.750%	1,888,204
1,332,296	FNMA POOL # 022950	01/01/2004	8.250%	1,217,385
1,020,898	FNMA POOL # 042770	03/01/2002	8.000%	927,098
205,551	FNMA POOL # 044997	06/01/2002	8.000%	186,665
762,172	FNMA POOL # 045962	04/01/2002	8.000%	692,143
126,345	FNMA POOL # 046279	05/01/2002	8.000%	114,736
424,417	FNMA POOL # 047740	06/01/2002	8.000%	385,422
193,288	FNMA POOL # 048559	06/01/2002	8.000%	175,529
175,187	FNMA POOL # 048824	06/01/2002	8.000%	159,091
337,912	FNMA POOL # 048999	06/01/2002	8.000%	306,865
681,000	FNMA POOL # 049054	06/01/2002	8.000%	618,430
299,500	FNMA POOL # 049077	06/01/2002	8.000%	271,9 <b>82</b>
100,000	FNMA POOL # 049454	06/01/2002	8.000%	90,812
2,512,013	FNMA POOL # 049462	06/01/2002	8.000%	2,281,209
155,902	FNMA POOL # 049496	06/01/2002	8.000%	141,578
484,932	FNMA POOL # 049502	06/01/2002	8.000%	440,376
516,931	FNMA POOL # 051341	06/01/2002	8.000%	469,435
1,000,896	FNMA POOL # 051509	06/01/2002	8.000%	908,934
4,438,641	FNMA POOL # 30417	09/01/2006	7.750%	3,989,229
4,991,820	FORTUNE MORTGAGE CORP	05/01/2003	7.943%	4,800,533
2,367,191	GEM SVGS ASSN	03/01/2000	8.088%	2,188,918
578,744	GNMA POOL # 23465	09/15/2008	9.000%	555,594

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND MILLER ANDERSON ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
1,300,000 1,400,000 531,493 2,650,470 2,400,000 2,600,000 1,300,000 1,400,000 2,000,000 2,000,000 2,000,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,400,000 1,755,000 4,600,000 29,975,000 2,300,000 9,525,564 3,834,714	GREAT WESTERN FINL CORP HARTFORD NATL CORP HILL FINL PART CERT HOUSEHOLD BANK ICI NORTH AMER INC IMPERIAL SAVINGS & LN ASS IMPERIAL SVGS & LN MARINE MIDLAND BKS INC MARRIOTT CORP MIDWEST FEDERAL SAVINGS & MNC FINL INC PHILADELPHIA SVG FD SOC PHILLIPS PETE CO ROOSEVELT FED SVGS & LN A SANTA BARBARA SVGS & LN A SECURITY PACIFIC CORP SOUTHTRUST CORP SOVRAN FINL CORP TALMAN FED SVGS & LN TRI CITY PPTY INV CORP U.S.A. TREASURY NOTE UNION OIL OF CALIFORNIA UNITED SAVINGS HOUSTON VIRGINIA BEACH FED SAVING	07/01/1997 06/01/1999 01/01/1989 05/01/2002 11/15/2006 08/01/1996 08/15/2011 03/01/1997 06/15/2007 04/01/2011 05/01/1997 11/15/1994 03/15/1995 03/01/1992	9.500% 9.850% 5.825% 7.809% 8.875% 8.500% 8.625% 9.375% 8.375% 8.375% 8.000% 9.375% 8.000% 9.750% 9.750% 9.750% 9.750% 9.125% 7.125% 7.125% 7.125% 7.125% 9.375% 8.875% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375% 9.375%	\$ 1,291,875 1,418,816 490,791 2,354,280 2,267,784 2,463,058 4,937,556 1,205,698 1,405,250 3,658,656 1,190,256 2,293,980 895,375 2,088,218 1,268,960 1,413,860 1,414,000 1,003,020 7,885,019 3,453,575 16,643,000 16,488,117 15,355,000 7,965,858 4,398,750 28,382,428 2,288,523 9,874,867 3,590,136
•	D PORTFOLIO		312170	\$ 231,319,804

# MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND PEREGRINE CAPITAL ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
3,000,000	ASSOCIATES CORP NORTH AME	06/01/1996	8.375%	, , , , , , , , , , , , , , , , , , , ,
2,000,000	BANK OF BOSTON CORP	02/15/1996	7.250%	1,950,000
2,060,000	BARCLAYS AMERICAN CORPORA	08/15/1998	7.875%	1,805,672
1,800,000 1,000,000	BRITISH COLUMBIA HYDRO & CANADIAN NATL RY CO	04/15/1991	14.500%	1,891,296
3,000,000	CHASE MANHATTAN CORP	07/15/2004 11/01/1995	9.700% 7.188%	1,004,090
2,000,000	CHICAGO ILL O'HARE INTL A		8.750%	2,917,500 2,078,800
2,000,000	CHRYSLER CORP	11/15/2015	12.000%	2,078,800
3,000,000	CITICORP	11/15/1992	8.250%	3,030,000
1,000,000	COLUMBIA ALA INDL DEV BRD	12/01/2015	9.250%	1,102,020
1,500,000	CONTINENTAL ILLINOIS CORP	10/15/1993	9.125%	1,443,960
1,159,496	FED HM LN PC # 140186	11/01/2003	7.000%	1,002,964
1,045,832	FED HM LN PC # 287221	02/01/2017	7.000%	904,645
849,540	FED HM LN PC # 287482	03/01/2017	7.000%	734,852
2,898,804	FED HM LN POOL # 161099	01/01/2010	12.500%	3,094,473
3,662,478	FED HM LN POOL # 183354	11/01/2010	6.000%	3,021,545
833,477	FED HM LN POOL # 185837	12/01/2001	7.500%	737,627
2,024,002	FED HM LN POOL # 188689	10/01/2007	8.000%	1,835,487
1,016,089	FED HM LN POOL # 188844	08/01/2008	7.500%	899,238
1,064,360	FED HM LN POOL # 200007	02/01/2000	11.500%	1,089,638
995,078	FED HM LN POOL # 210229	09/01/2020	11.000%	1,017,468
440,697	FED HM LN POOL # 210388	10/01/2000	11.250%	454,187
508,391	FED HM LN POOL # 210572	12/01/2020	10.500%	519,505
1,050,884	FED HM LN POOL # 210589	12/01/2000	11.000%	1,074,529
1,052,124 1,450,519	FED HM LN POOL # 255674 FED HM LN POOL # 271338	11/01/1999 11/01/2007	9.000% 7.250%	1,006,735
4,000,000	FEDERAL HOME LOAN MORTGAG	01/31/1994	11.875%	1,269,204 4,435,000
3,000,000	FIRST CHICAGO CORP	07/24/1996	7.125%	2,940,000
3,000,000	FIRST CHICAGO CORP	06/01/1998	8.500%	2,875,020
2,000,000	GANNETT INC	02/01/1996	8.500%	2,032,320
750,000	GEORGIA ST MUNI ELEC	01/01/2018	7.875%	710,828
525,174	GNMA II POOL # 115563	06/20/2014	12.500%	576,379
1,078,730	GNMA II POOL # 121529	02/21/2015	12.000%	1,173,777
204,207	GNMA POOL # 050936	10/15/2011	15.000%	234,583
346,085	GNMA POOL # 051011	02/15/2012		397,566
546,717	GNMA POOL # 052820	07/15/2012		628,041
194,459	GNMA POOL # 054838	09/15/2012		223,385
653,661	GNMA POOL # 068121		12.000%	711,255
506,203	GNMA POOL # 115029	12/15/2014	13.000%	561,253
597,284	GNMA POOL # 122005	01/15/2015	12.500%	655,520
929,886 1,665,305	GNMA POOL # 128012 GNMA POOL # 142763		13.000%	1,031,011 1,790,703
18,616	GNMA POOL # 142763 GNMA POOL # 167686		10.750%	19,267
1,725,000	GRAND RIVER DAM AUTH OKLA		6.000%	1,301,478
311,939	GUARANTEED MTG CORP II	10/01/1994	11.950%	346,252
3,000,000	GUARDIAN SAV & LN	03/28/1995	6.063%	2,955,000
3,000,000	HERTZ CORP	03/01/1996	8.500%	2,975,850
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# MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND PEREGRINE CAPITAL ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON		MARKET VALUE
3,000,000 1,000,000 1,000,000 2,000,000 3,000,000 1,200,000 1,850,000 2,500,000 2,500,000 1,000,000 3,000,000 1,000,000 2,000,000 1,000,000 2,000,000 2,000,000 2,000,000	HOUSEHOLD FIN CORP ILLINOIS ST INTERMOUNTAIN PWR AGY UTA INTERMOUNTAIN PWR AGY UTA INTERMOUNTAIN PWR AGY UTA INTERMOUNTAIN PWR AGY UTA ITT FINL CORP LINCOLN NATIONAL CORP. LOUISIANA ST NORTH CAROLINA EASTN MUN OCCIDENTAL PETE CORP PENNSYLVANIA ST HIGHER ED PHILLIP MORRIS COS INC. PHILLIPS PETE CO PUERTO RICO COMWLTH SANTA BARBARA SVGS & LN A SOUTH CAROLINA ST. PUB SV XEROX CR CORP	02/15/1993 09/01/1999 07/01/2019 07/01/2023 07/01/2016 08/15/1994 09/15/1992 08/01/2002 01/01/2021 03/15/1991 07/01/2008 08/01/1996 03/15/1995 07/01/2002 12/31/1996 07/01/2021 09/15/1991	8.400% 9.200% 9.000% 7.000% 5.000% 12.750% 13.875% 7.000% 7.250% 10.000% 9.250% 7.500% 8.063% 7.125% 8.000% 7.300% 16.000%	<b>\$</b>	2,958,300 1,122,470 1,103,940 1,703,440 1,295,260 3,454,620 1,327,080 1,689,291 2,175,000 1,997,920 1,117,940 2,895,930 2,827,500 917,500 1,812,800 907,830 3,051,636
TOTAL BON	D PORTFOLIO			\$	101,962,497

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND WESTERN ASSET MANAGEMENT ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
	<b>S</b>		0001011	VIIDOLI
2,500,000 2,500,000 7,250,000 4,500,000 2,475,000 5,200,000 17,400,000 8,785,000 3,442,898	AMERICAN MED INTL CHASE MANHATTAN CORP CHEMICAL NEW YORK CORP CHRYSLER CORP CITICORP PERSON TO PERSON COMMONWEALTH EDISON DEERE & CO. DELTA AIRLINES INC FED HM LN POOL # 181257	07/15/1991 06/01/1990 06/15/1999 11/15/2015 03/01/1998 05/01/2016 11/15/2002 05/15/2016 01/01/2009	9.500% 8.750% 9.750% 12.000% 8.750% 9.500% 8.000% 9.000%	2,518,750 7,210,270 4,871,250 2,311,972 4,976,816 15,660,522 8,111,191
5,978,869 7,915,000 2,763,565 4,000,000 750,431	FED HM LN POOL # 220013 FEDERAL FARM CREDIT BANK FEDERAL HOME LN MTG CORP FEDERAL NATIONAL MORTGAGE FEDERAL NATIONAL MTG. AS.	10/01/2001 01/20/1993 12/31/2014 02/10/1996 03/01/2009	8.750% 10.650% 10.250% 7.000% 6.500%	3,122,261 5,754,661 8,553,107 2,768,705 4,775,000 686,171
3,025,000 1,882,813 8,462,165 14,005,282 3,558,866 4,310,891	FEDERAL NATL MTG ASSN FEDERAL NATL MTG ASSN STR FEDERLAL NATL MTG ASSN ST FHA CITICORP #136 FHA CITICORP 1985-5 FNMA POOL # 000797	06/12/1995 11/08/2008 01/01/2006 05/01/2023 12/01/2025 01/01/2023	11.150% 6.000% 5.000% 7.430% 7.375% 7.250%	3,407,844 1,569,795 6,663,955 12,065,831 3,039,770 3,777,418
13,858,593 33,624,490 998,465 998,758 998,660	FNMA POOL # 007239 GNMA POOL # 152586 GNMA POOL # 189232 GNMA POOL # 189233 GNMA POOL # 189234	08/01/2008 06/15/2016 03/15/2017 03/15/2017 03/15/2017	8.000% 9.000% 8.000% 8.000% 8.000%	12,585,265 32,279,511 908,603 908,870 908,780
998,487 998,608 499,309 998,543 1,996,907	GNMA POOL # 189241 GNMA POOL # 190317 GNMA POOL # 194157 GNMA POOL # 194941 GNMA POOL # 200680	03/15/2017 03/15/2017 03/15/2017 04/15/2017 03/15/2017	8.000% 8.000% 8.000% 8.000% 8.000%	908,623 908,733 454,371 908,674 1,817,185
2,995,132 998,767 3,994,253 1,999,532 4,400,000 5,000,000	GNMA POOL # 200914 GNMA POOL # 204660 GNMA POOL # 205929 GNMA POOL # 208547 GREAT WESTERN FINL CORP IMPERIAL SVGS & LN	04/15/2017 03/15/2017 03/15/2017 05/15/2017 07/01/1997 08/15/2011	8.000% 8.000% 8.000% 8.000% 9.500% 8.000%	2,725,570 908,878 3,634,771 1,819,575 4,372,500 4,747,650
3,423,000 3,050,000 4,500,000 4,325,000 2,250,000	LITTON INDS INC LOUISIANA PWR. & LT. CO. MANUFACTURERS HANOVER COR MCI COMMUNICATIONS MELLON BK N A OCCIDENTAL PETE CORP	07/01/2005 11/01/2016	12.625% 10.375% 8.500%	3,935,115 2,747,623 3,958,110 3,762,750 2,077,583 6,857,500
6,500,000 2,500,000 7,500,000 214,000 214,000 5,850,000	PENNSYLVANIA PWR & LT CO PENNSYLVANIA PWR & LT CO STANDARD OIL CO STANDARD OIL CO STUDENT LN MKT ASSOC	10/01/2015 04/01/1994 12/15/1990 03/15/1992 08/01/1991	12.000% 13.500% 0.000% 0.000% 5.600%	2,861,400 8,322,150 158,728 141,045 5,316,188

## MINNESOTA STATE BOARD OF INVESMENT POOLED BOND FUND WESTERN ASSET MANAGEMENT ALPHABETICAL BOND HOLDINGS JUNE 30,1987

PAR VALUE	SECURITY	MATURITY	COUPON	MARKET VALUE
5,500,000 800,000 4,400,000 2,900,000 5,500,000	SYSTEM ENERGY RESOURCES TEXAS UTIL ELEC CO U.S.A. TREASURY NOTE U.S.A. TREASURY NOTE U.S.A. TREASURY NOTE	09/01/1996 04/01/2017 02/15/1991 05/15/1996 08/15/1989	10.500% 9.125% 7.375%	\$ 4,922,500 785,104 4,565,000 2,709,673 5,403,750
TOTAL BON	D PORTFOLIO			\$ 233,588,340

### MINNESOTA STATE BOARD OF INVESMENT MINNESOTA VENTURE CAPITAL FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987

NO. OF SHARES		MARKET VALUE
3,196,406 2,500,000 10,000,000 3,750,000 25,375,000 15,715,890 7,500,000 8,642 7,482,246 1,661,250	ALLIED VENTURE PARTNERS CENTURY PTN III DSV PARTNERS IV G & K VENTURE PARTNERSHI K K R INVT. FD KKR INVT FUND II MATRIX PARTNERS II L.P. NORTHWEST VENTURE PARTNER SUMMIT VENTURE LTD PARTN SUPERIOR VENTURE PARTNERS	\$ 3,176,067 2,744,038 10,261,880 3,540,101 25,375,000 15,715,890 7,618,792 7,932,943 8,202,801 1,614,996
TOTAL EQUITY	PORTFOLIO	\$ 86,182,508
	MINNESOTA REAL ESTATE POOL ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987	
20,744 13,709 6,000 20,000 2,000 10,438 19,783 14,801 1,800 8,000 67,000,000	AETNA REAL EST. FUND EQUIT. LIFE ASSUR. SOCIE HEITMAN ADV. REALTY II HEITMAN ADVISORY CORP. GR HEITMAN ADVISORY III PRUDENTIAL REAL EST FUND SSB REAL ESTATE FD III SSB REAL ESTATE FUND IV TCW REALITY FUND IV TCW REALTY FUND III THE RREEF FUNDS USA III	\$ 54,978,566 64,115,557 31,895,636 19,808,892 10,000,000 58,564,175 21,937,748 15,592,150 8,999,686 41,184,229 69,266,007
TOTAL EQUITY	PORTFOLIO	\$ 396,342,647
	MINNESOTA RESOURCES FUND ALPHABETICAL EQUITY HOLDINGS JUNE 30,1987	
16,771 2,156,240 804,534 22,285,466 30,000,000	AMGO I AMGO II APACHE CORP LTD I PART APACHE CORP LTD II PART APACHE CORP LTD III PART	\$ 4,407,400 5,385,000 804,534 22,170,450 30,000,000
TOTAL EQUITY	PORTFOLIO	\$ 62,767,384

### MINNESOTA STATE BOARD OF INVESTMENT MANAGERS FEES FY87

#### ACTIVE EQUITY ACCOUNT\*

Fred Alger Alliance Capital Beutel Goodman Forstmann-Leff Associates Hellman Jordan IDS Advisory Investment Advisers BMI Capital Corporation Waddell & Reed Lieber & Company Peregrine Capital Management	\$	-0- 970,175.60 -0- 202,986.81 541,088.49 352,373.58 242,131.19 605,370.54 461,559.59 363,279.82 242,456.60
Peregrine Capital Management	\$3	242,456.60 3,981,422.22

#### PASSIVE EQUITY ACCOUNT

Wi	lshire	Ś	254,000.01

#### BOND MANAGERS ACCOUNT

Investment Advisers	\$	83,801.39
Lehman Management		470,193.62
Miller Anderson		483,990.27
Morgan Stanley	•	464,254.17
Peregrine Capital Management		223,172.30
Western Asset Management		353,984.81
	\$2	,079,396.56

\* Active equity managers are compensated on a performance-based fee formula. Fees earned may range from zero to twice the manager's base fee, depending on the manager's performance relative to an established benchmark. (See page 82 in Part I of the Annual Report for a more complete description of this formula.)