

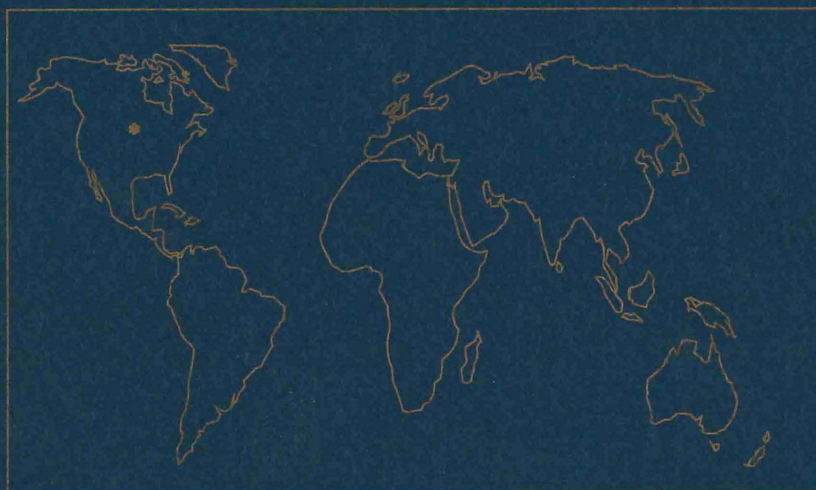
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# 1996 ANNUAL REPORT



## MINNESOTA STATE BOARD OF INVESTMENT

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**MINNESOTA  
STATE  
BOARD OF  
INVESTMENT**



**Board Members:**

Governor  
Arne H. Carlson

State Auditor  
Judi Dutcher

State Treasurer  
Michael A. McGrath

Secretary of State  
Joan Anderson Growe

Attorney General  
Hubert H. Humphrey III

**Executive Director:**

Howard J. Bicker

Suite 105, MEA Bldg.  
55 Sherburne Avenue  
St. Paul, MN 55155  
(612)296-3328  
FAX (612)296-9572

An Equal Opportunity  
Employer

The Minnesota State Board of Investment (SBI) is pleased to present its report for the fiscal year ending June 30, 1996.

**Investment Environment**

Fiscal year 1996 proved to be another outstanding year for US stocks. Amid low inflation, strong corporate earnings and an active initial public offering market, the Wilshire 5000 Stock Index advanced 26.2%. Due to a general rise in interest rates over the year, the US bond market generated a modest gain of 5.0% as measured by the Lehman Brothers Aggregate Bond Index.

While international stock markets did not keep pace with the rapid rise in the US, overall returns were in line with historical averages. The Morgan Stanley Capital International index of Europe, Australia and the Far East (EAFE), provided a return of 13.3% measured in US dollar terms.

**SBI Results**

Within this generally favorable investment environment, the retirement assets under the Board's control performed well:

- The Basic Retirement Funds gained 18.8% during fiscal year 1996. The Funds benefited from their high stock exposure as well as exceptionally strong returns from private equity investments such as venture capital and buyout funds. (See page 8.)
- The Post Retirement Fund advanced 17.2% for the year. This gain, combined with strong returns in prior years, will provide a lifetime post retirement benefit increase of 8.0% for eligible retirees. (See page 11.)

The theme of international diversification ran through most of the Board's policy initiatives during the year:

- The Board elected to increase the international exposure of the Basic and Post Funds from 10% to 15%. As part of the increase, the Board allocated up to 2% of the Basic and Post Funds to the stocks of emerging markets (See pages 41 and 42.)
- The Board also implemented a currency overlay program for the EAFE index fund. The program is designed to protect the index fund from losses during periods when foreign currencies depreciate relative to the US dollar. (See page 43.)

**On June 30, 1996, assets under management totaled \$31.4 billion.** This total is the aggregate 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 communicate the investment goals, policies and performance of each fund 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 performance of the funds under its control.

Sincerely,

A handwritten signature in cursive script that reads "Howard Bicker".

Howard Bicker  
Executive Director



## State Board of Investment

**Governor Arne H. Carlson, Chair**

**State Auditor Judith H. Dutcher**

**State Treasurer Michael A. McGrath**

**Secretary of State Joan Anderson Growe**

**State Attorney General Hubert H. Humphrey III**

## Investment Advisory Council

The Legislature has established a seventeen member Investment Advisory Council to advise the Board and its staff on investment-related matters.

- The Board appoints ten members experienced in finance and investment. These members traditionally have come from the Minneapolis and St. Paul corporate investment community.
- The Commissioner of Finance and the Executive Directors of the three statewide retirement systems are permanent members of the Council.
- Two active employee representatives and one retiree representative are appointed to the Council by the Governor.

The Council has formed four committees organized around broad investment subjects relevant to the Board's decision-making process: Asset Allocation, Domestic Managers, International Managers and Alternative Investments.

All proposed investment policies are reviewed by the appropriate Committee and the full Council before they are presented to the Board for action.

### Members of the Council\*

*Gary Austin*  
Executive Director  
Teachers Retirement Association

*David Bergstrom*  
Executive Director  
Mn. State Retirement System

*John E. Bohan*  
V.P., Pension Investments  
Grand Metropolitan-Pillsbury

*Roger Durbahn*  
Governor's Appointee  
Retiree Representative

*Kenneth F. Gudorf*  
Chief Executive Officer  
Agio Capital Mgmt., LLC

*Douglas Gorence*  
Director, Pension Investments  
Honeywell, Inc.

*P. Jay Kiedrowski*  
Executive Vice President  
Norwest Bank Minnesota

*Wayne Simoneau*  
Commissioner  
Mn. Dept. of Finance

*Han Chin Liu*  
Governor's Appointee  
Active Employee Representative

*Judith W. Mares*  
Financial Consultant  
Mares Financial Consulting, Inc.

*Malcolm W. McDonald, Vice Chair*  
Director & Corp. Secretary  
Space Center, Inc.

*Gary R. Norstrom*  
Sr. Vice Pres., Institutional Mktg.  
Piper Capital Management

*Daralyn Peifer*  
Director, Benefits Finance  
General Mills, Inc.

*Patrick Sexton*  
Governor's Appointee  
Active Employee Representative

*Michael Stutzer*  
Professor, Carlson School of Mgmt.  
University of Minnesota

*Mary Vanek*  
Acting Executive Director  
Public Employees Retirement Assoc.

*Jan Yeomans, Chair*  
Treasurer  
3M Co.

\* As of January 1997



## **Staff, Consultants & Custodians\***

*Howard Bicker*  
Executive Director

*Beth Lehman*  
Assistant Executive Director

### **Investment Staff**

**Equities**  
*Lois E. Buermann*  
Mgr., Domestic Equities

*Kristine J. Hanson*  
Analyst, External Equities

*A. Arthur Kaese*  
Analyst, Internal Equities

*Karen Vnuk*  
Analyst, International Equities

**Fixed Income**  
*Michael J. Menssen*  
Mgr., Fixed Income

*Sheila H. Berube*  
Analyst, Fixed Income

**Alternative Assets**  
*John N. Griebenow*  
Mgr., Alternative Investments

*Mark T. Regal*  
Analyst, Alternative Investments

**Cash Management**  
*John T. Kinne*  
Mgr., Short Term Accounts

*Harold L. Syverson*  
Analyst, Short Term Accounts

**Public Programs**  
*James E. Heidelberg*  
Mgr., Public Programs

*N. Robert Barman*  
Analyst, Deferred Compensation

*Deborah Griebenow*  
Analyst, Shareholder Services

**Research/Special Projects**  
*Mansco Perry III*  
Manager, Research & Development

### **Administrative Staff**

**Finance and Accounting**  
*L. Michael Schmitt*  
Administrative Director

*Mable E. Patrick*  
Accounting Supervisor

*Thomas L. Delmont*  
Accounting Officer, Intermediate

*Wellington Newton*  
Accounting Officer, Intermediate

*Nancy L. Wold*  
Accounting Officer

*Kathy Sears*  
Computer Operator

**Support Services**  
*Charlene Olson*  
Secretary to the Executive Director

*Lin Nadeau*  
Secretary

*Carol Nelson*  
Secretary

*Sondra Wagner*  
Secretary

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### **Consultants**

General Consultant  
*Richards & Tierney, Inc.*  
Chicago, Illinois

International Consultant  
*Pension Consulting Alliance*  
Studio City, California

Deferred Compensation Consultant\*\*  
*PRIMCO*  
Portland, Oregon

### **Custodian Banks**

Retirement Assets  
*State Street Bank & Trust Co.*  
Boston, Massachusetts

Non-Retirement Assets  
*First Trust National Association*  
St. Paul, Minnesota

\*As of January 1997

\*\* As of December 1996



## Introduction

**The Minnesota State Board of Investment is responsible for the investment management of various retirement funds, trust funds and cash accounts. On June 30, 1996 the market value of all assets was \$31.4 billion.**

### **Constitutional and Statutory Authority**

The Minnesota State Board of Investment (SBI) is established by Article XI of the Minnesota Constitution to invest all state funds. Its membership is also specified in the Constitution and is comprised of the Governor (who is named as chair of the Board), State Auditor, State Treasurer, Secretary of State and State Attorney General.

All investments undertaken by the SBI are governed by the prudent person rule and other standards codified in *Minnesota Statutes*, Chapter 11A and Chapter 356A.

### **Prudent Person Rule**

The prudent person rule, as codified in *Minnesota Statutes* Section 11A.09, 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.” *Minnesota Statutes* Section 356A.04 contains similar codification of the prudent person rule applicable to the investment of pension fund assets.

### **Authorized Investments**

In addition to the prudent person rule, *Minnesota Statutes* Section 11A.24 contains a specific list of asset classes available for investment, including common stocks, bonds, short term securities,

real estate, private equity, and resource funds. The statutes prescribe the maximum percentage of fund assets that may be invested in various asset classes 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, asset allocation, investment management structure and specific performance standards.

The Board has adopted guidelines concerning investments in stock markets outside the U.S. The guidelines do not prohibit investment in any market, but do require that additional notification/presentation be provided to SBI staff or the SBI Administrative Committee in certain cases (refer to page 45 for more information on these guidelines).

In recent years, the Board, its staff, and the Investment Advisory Council have conducted detailed analyses of each of the funds under the SBI's control that address investment objectives, asset allocation policy and management structure. The results of these studies guide the on-going management of these funds and will be updated periodically.

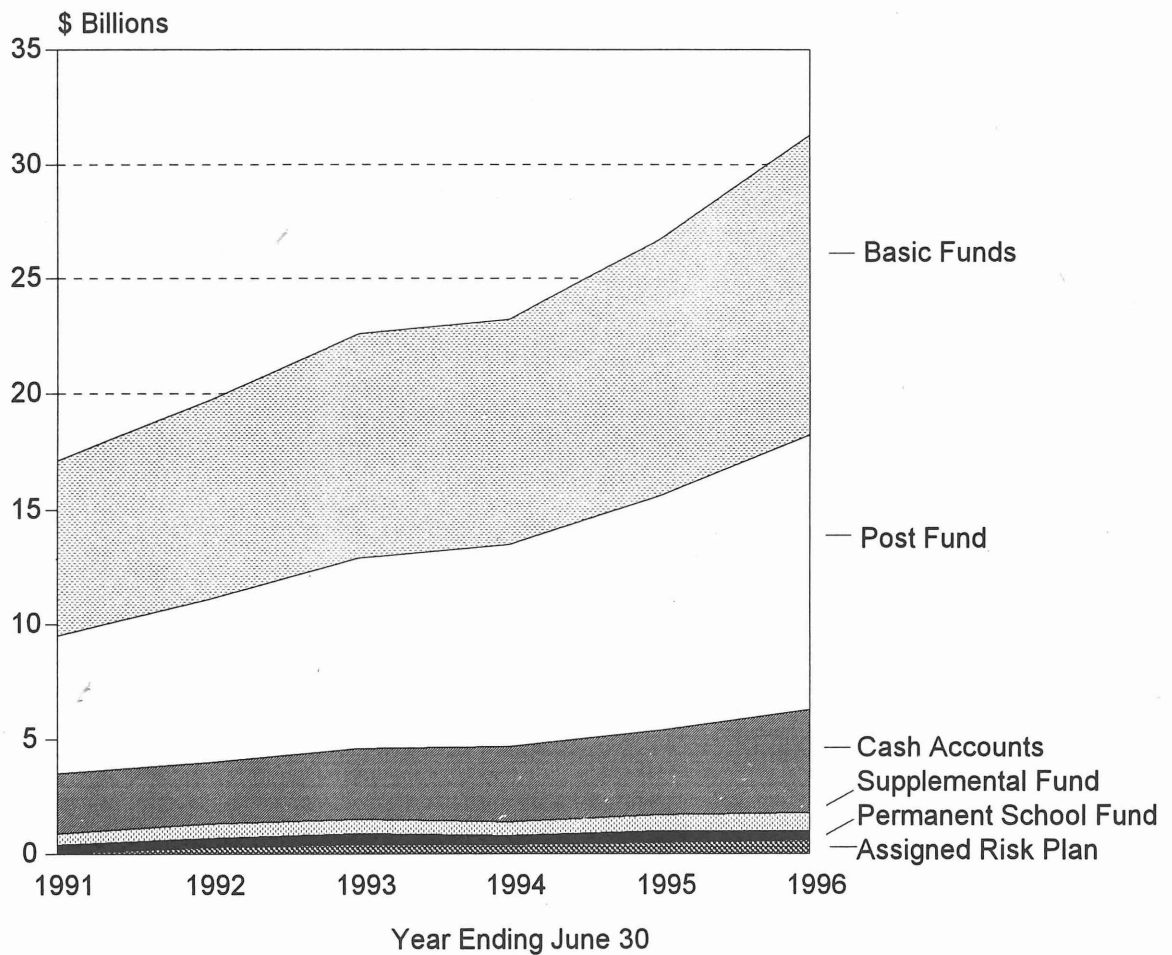
### **Important Notes**

Readers should note that the SBI's returns in this report are shown *after* transactions costs and fees are deducted. Performance is computed and reported after all applicable charges to assure that the Board's focus is on true net returns.

Due to the large number of individual securities owned by the funds managed by the SBI, this report contains only summarized asset listings. **A complete list of securities is available upon request from the State Board of Investment.**



**Growth in Assets**  
**Fiscal Years 1992 - 1996**



Note: The Environmental Trust Fund is \$0.1 billion as of June 30, 1996

## **Funds Under Management**

**Market Value  
June 30, 1996**

### **Basic Retirement Funds**

**\$13.1 billion**

The Basic Retirement Funds contain the pension assets of the currently working participants in eight statewide retirement plans:

Teachers Retirement Fund	\$5,604 million
Public Employees Retirement Fund	2,805 million
State Employees Retirement Fund	2,676 million
Public Employees Police and Fire Fund	1,322 million
Police and Fire Consolidation Fund	389 million
Highway Patrol Retirement Fund	190 million
Correctional Employees Fund	145 million
Judges Retirement Fund	16 million

### **Post Retirement Fund**

**11.9 billion**

The Post Retirement Investment Fund is composed of the reserves for retirement benefits to be paid to retired employees. Life-time retirement benefit increases are permitted based on both inflation and investment performance.

### **Supplemental Investment Fund**

**0.8 billion**

The Supplemental Investment Fund includes assets of the state deferred compensation plan, supplemental benefit arrangements, various retirement programs for local police and firefighters, and the unclassified employees of the state. Participants may choose among seven separate accounts with different investment emphases designed to meet a wide range of investment needs and objectives.

Income Share Account	stocks and bonds	\$389 million
Growth Share Account	actively managed stocks	157 million
Common Stock Index Account	passively managed stocks	96 million
International Share Account	non U.S. stocks	14 million
Bond Market Account	actively managed bonds	24 million
Money Market Account	short-term debt securities	50 million
Fixed Interest Account	guaranteed investment contracts	69 million

### **Assigned Risk Plan**

**\$0.6 billion**

The Minnesota Workers Compensation Assigned Risk Plan provides worker compensation insurance for companies unable to obtain coverage through private carriers. The SBI is the investment manager for the Plan's portfolio.

### **Permanent School Trust Fund**

**\$0.4 billion**

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

### **Environmental Trust Fund**

**\$0.1 billion**

The Environmental Trust Fund is a trust established for the protection and enhancement of Minnesota's environment. It is funded with a portion of the proceeds from the state's lottery.

### **State Cash Accounts**

**\$4.5 billion**

These accounts are the cash balances of state government funds, including the Invested Treasurers Cash Fund, transportation funds, and other miscellaneous cash accounts. Assets are invested in high quality, liquid debt securities.

### **Total Assets**

**\$31.4 billion**



## Combined Funds

**The "Combined Funds" represent the assets of both active and retired public employees who participate in the defined benefit plans of three state-wide retirement systems: Teachers Retirement Association (TRA), Public Employees Retirement Association (PERA) and the Minnesota State Retirement System (MSRS). On June 30, 1996, the Combined Funds had a market value of \$25.0 billion.**

The Combined Funds are so named because they represent the combined assets of both the Basic Retirement Funds (the fund for active employees) and Post Retirement Fund (the fund for retired employees). Unlike most other public and corporate pension plans, the assets of active and retired employees are separated under statute and therefore managed and accounted for separately. More information on the structure and performance of the Basic and Post Funds are contained in the following chapters.

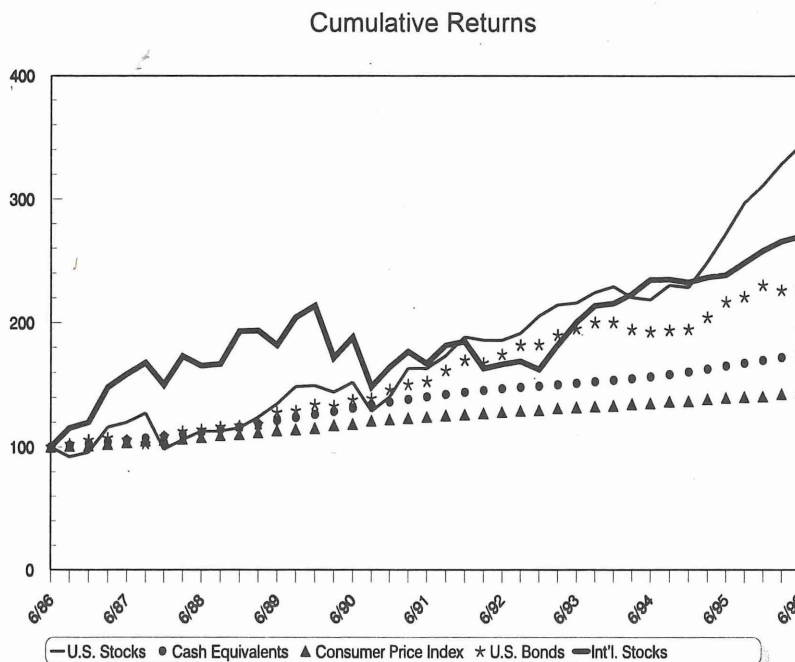
While the Combined Funds do not exist under statute, the Board finds it instructive to review asset mix and performance of all defined benefit pension assets under its control. This more closely parallels the structure of other public and corporate pension plan assets and therefore allows for more meaningful comparison with other pension fund investors. The comparison universe used by the SBI is the Master Trust portion of the Trust Universe Comparison Service (TUCS). This universe contains information on more than 200 public and corporate pension and trust funds with a balanced asset mix.

**It is important to note that the historical data on the Combined Funds presented in this report reflect only the Basic Retirement Funds through fiscal year 1993. Both the Basic and Post Funds are included thereafter.**

This distinction is necessary due to the very different asset allocation strategies employed by the two funds in the past. The Basic Funds have always been managed to maximize total rates of return over the long-term and therefore its asset allocation has historically included a substantial stock segment. In contrast, until the post retirement benefit increase formula was changed in 1993, the Post Retirement Fund was managed to maximize current income which necessitated a large commitment to bonds. As a result, the investment goals of the two funds were incompatible for analytical purposes until fiscal year 1994.

(Please refer to the chapter on the Post Retirement Fund for more information on the change in the benefit increase formula and its impact on the asset allocation strategy for that Fund).

Figure 1. Performance of Capital Markets FY 1987-1996

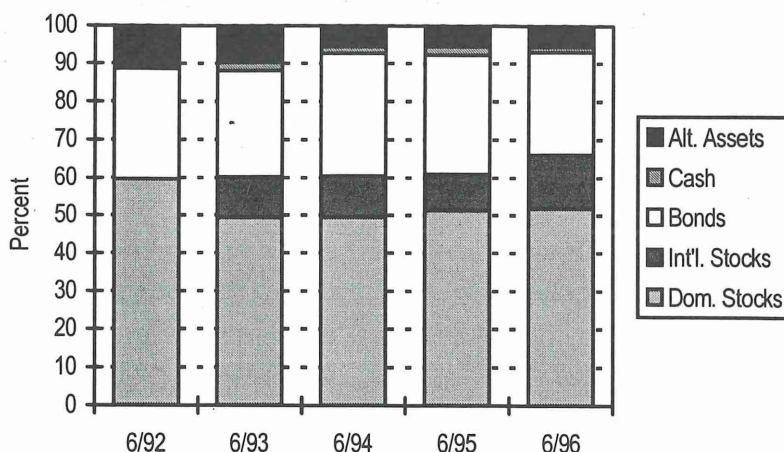


## Combined Funds

### Asset Allocation

As illustrated in Figure 1, historical evidence strongly indicates that common stocks (both domestic and international) will provide the greatest opportunity to maximize investment returns over the long-term. As a result, the Board has chosen to incorporate a large commitment to common stocks in its asset allocation policy for retirement funds. In order to limit the short run volatility of returns exhibited by common stocks, the Board includes other asset classes such as bonds and alternative investments in the total portfolio. These assets diversify the Funds and reduce wide fluctuations in investment returns on a year to year basis. This diversification should not impair the Funds' ability to meet or exceed their actuarial return targets over the long-term.

Figure 3. Historical Asset Mix FY 1992-1996



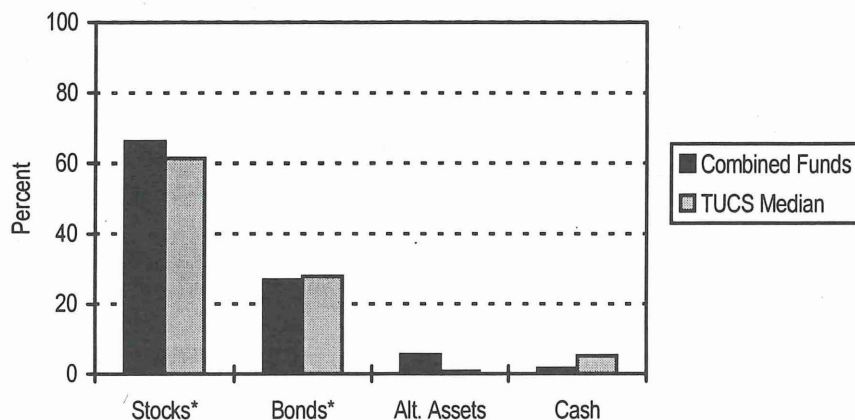
Note: Data for fiscal years 1992 and 1993 represent the Basic Funds only.

### Asset Mix Compared to Other Pension Funds

Comparisons of the Combined Funds' actual asset mix to the median allocation to stocks, bond and other assets of the funds in

TUCS on June 30, 1996 are displayed in Figure 2. It shows that the Combined Funds were overweighted in stocks and alternative investments relative to the median allocation in TUCS and underweighted in their allocation to bonds and cash. Historical data on the Combined Funds' asset mix is shown in Figure 3.

Figure 2. Asset Mix Comparison as of June 30, 1996



	Combined Funds	Median Allocation in TUCS
Stocks*	66.2%	61.4%
Bonds*	26.8	27.9
Alt. Assets	5.5	0.8**
Cash	1.5	5.1

\* Both international and domestic

\*\* All other in TUCS

### Return Objectives

The Combined Funds are evaluated relative to three total rate of return objectives:

- **Provide Real Returns.** Over a ten year period, the Combined Funds are expected to produce returns that exceed inflation by 3-5 percentage points on an annualized basis.
- **Exceed Median Fund Returns.** Over a five year period, the Combined Funds are expected to outperform the return of the median fund in a representative universe of other public and corporate pension and trust funds with a balanced asset mix of stocks and bonds. As noted earlier, the universe used by the SBI is the Master Trust portion of TUCS.



## Combined Funds

- **Exceed Market Returns.** Over a five year period, the Combined Funds are expected to outperform a composite of market indices weighted in a manner that reflects the asset mix of the Combined Funds.

### Investment Results

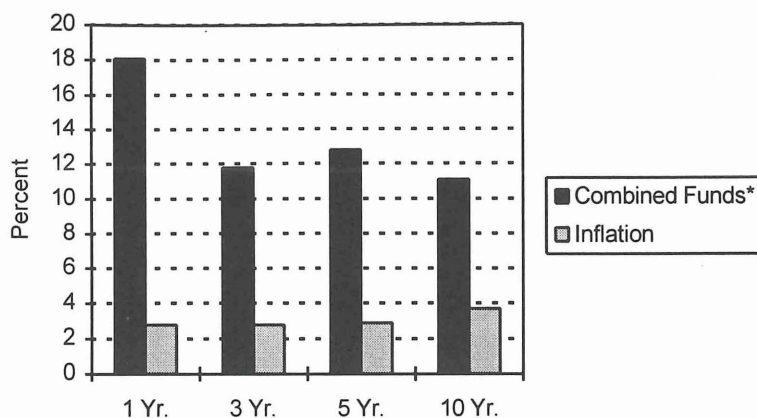
#### Comparison to Inflation

Over the last ten years, the Combined Funds exceeded inflation by 7.4 percentage points, an amount well in excess of the return objective cited above. Historical results compared to inflation are shown in Figure 4.

#### Comparison to Other Funds

While the SBI is naturally concerned with how its returns compare to other pension investors, universe comparison data should be used with great care. There are several reasons why such comparisons will provide an “apples to oranges” look at performance:

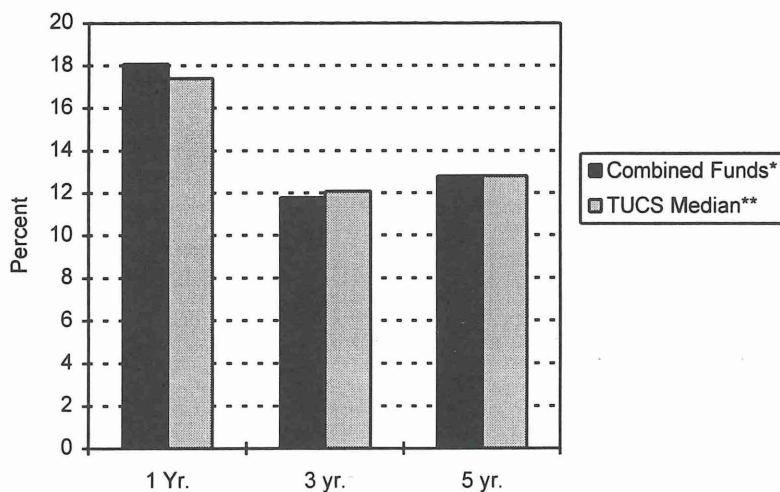
Figure 4. Combined Funds Performance vs. Inflation



	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Combined Funds*	18.1%	11.8%	12.8%	11.1%
Inflation	2.8	2.8	2.9	3.7

\*After fees. Includes Basic Funds only through 6/30/93, Basic and Post Funds thereafter.

Figure 5. Combined Funds Performance vs. Median Fund



	1 Yr.	3 Yr.	5 Yr.
Combined Funds*	18.1%	11.8%	12.8%
TUCS Median**	17.4	12.1	12.8

\*After fees. Includes Basic Funds only through 6/30/93, Basic and Post Funds thereafter.

\*\*Before fees.

- **Differing Treatment of Fees.** All SBI returns in this report are shown net of all management fees while TUCS data is reported before fees. If the SBI reported returns before fees, its returns and rankings would be *higher* than those shown in this report.
- **Differing Allocations.** Asset allocation will have a dominant effect on returns. The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide range for meaningful comparison. In addition, it appears that many funds do not include alternative asset holdings in their reports to TUCS. This further distorts comparisons among funds.
- **Differing Goals/Liabilities.** Each pension fund structures its portfolio to meet its own liabilities and risk tolerance. This may result in different choices on asset mix. Since asset

## Combined Funds

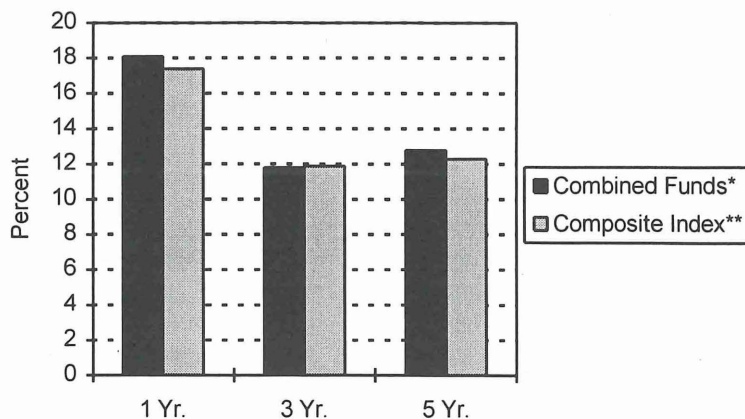
mix will largely determine investment results, a universe ranking may not be relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public and corporate pension funds in the Master Trust portion of TUCS is displayed in Figure 5. It shows that the Combined Funds matched the median fund over the last five years. This placed the Combined Funds in the top half (49th percentile) for the period. Returns for the Combined Funds exceeded the median for the most recent one year period but trailed the median for the latest three year period.

### Comparison to Market Returns

The Combined Funds' performance is also evaluated relative to a composite of market indices which is weighted in a manner that reflects the actual asset allocation of the Combined Funds. Performance results and a breakdown of the composite index are shown in Figure 6. The Combined Funds exceeded the composite index by 0.5 percentage point over the last five years and therefore met their stated performance goal. The Funds trailed the composite index by 0.1 percentage point over the last three years but exceeded it by 0.7 percentage point over the most recent fiscal year. These results are largely a measure of value added or lost from active management after all fees and expenses have been taken into consideration.

Figure 6. Combined Funds Performance vs. Composite Index



	Annualized		
	1 Yr.	3 Yr.	5 Yr.
Combined Funds*	18.1%	11.8%	12.8%
Composite Index**	17.4	11.9	12.3

\* After fees. Includes Basic Funds through 6/30/93, Basic and Post thereafter.

\*\* Adjusted to reflect the SBI's restriction on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93.

### Composite Index on June 30, 1996

Asset Class	Market Index	Composite Index Wts.*
Domestic Stocks	Wilshire 5000	50.4%
Int'l. Stocks	Int'l. Composite**	14.3
Domestic Bonds	Lehman Aggregate	28.0
Alternative Assets	Wilshire Real Estate	2.0
	Venture Capital Funds	3.0
	Resource Funds	0.4
Unallocated Cash	91 Day T-Bills	1.9
Total		100.0%

\* Weights are reset quarterly in the composite to reflect the combined allocation policies of the Basic and Post Funds.

\*\* Composite of MSCI EAFE Free and MSCI Emerging Markets Free.



## Basic Retirement Funds

**The Basic Retirement Funds accumulate the retirement assets of public employees during their working years. On June 30, 1996, the Funds covered more than 256,000 active employees and had a market value of \$13.1 billion.**

Figure 7 identifies the eight different retirement funds which comprise the Basic Funds. The Basic Funds invest the pension contributions that employees and employers make to defined benefit pension plans during the employees' years of active service.

### Investment Objectives

The State Board of Investment (SBI) has one overriding responsibility with respect to its management of the Basic Funds: to ensure that sufficient funds are available to finance promised benefits at the time of retirement.

#### Actuarial Assumed Return

Employee and employer contribution rates are specified in state law as a percentage of an employee's salary.

The rates are set so that contributions plus expected investment earnings will cover the projected cost of the initially promised pension benefits. In order to meet these projected pension costs, the Basic Retirement Funds must generate investment returns of at least 8.5% on an annualized basis, over time.

#### Time Horizon

Normally, pension assets will accumulate in the Basic Retirement Funds for thirty to forty years during an employee's years of active service. This provides the Basic Funds with a long investment time horizon and permits the Board to take advantage of the long run return opportunities offered by common stocks and other equity investments in order to meet its actuarial return target.

### Return Objective

The Board measures the performance of the Basic Retirement Funds relative to a composite of market indices that is weighted in a manner that reflects their long-term asset allocation policy. The Basic Funds are expected to exceed their composite index over a five year period. *Performance is reported net of all fees and costs* to assure that the Board's focus is on its true net return.

### Asset Allocation

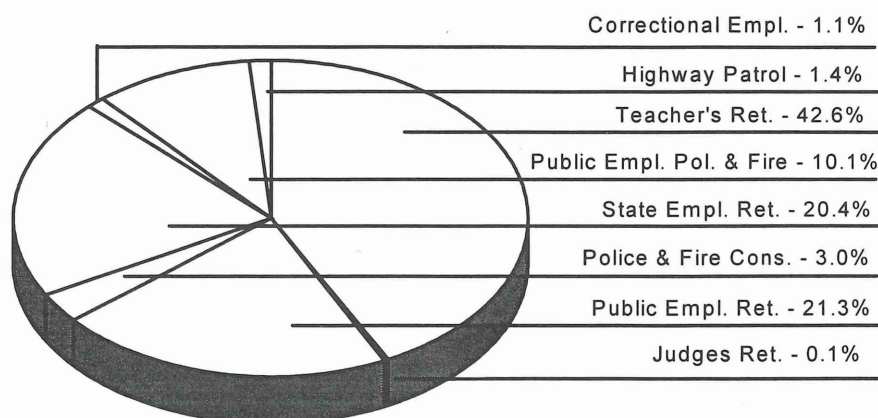
The allocation of assets among stocks, bonds, and alternative investments can have a dramatic impact on investment results. In fact, asset allocation decisions overwhelm the impact of individual security selection within a total portfolio. Consequently, the Board has focused considerable attention on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

#### Long-Term Allocation Policy

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

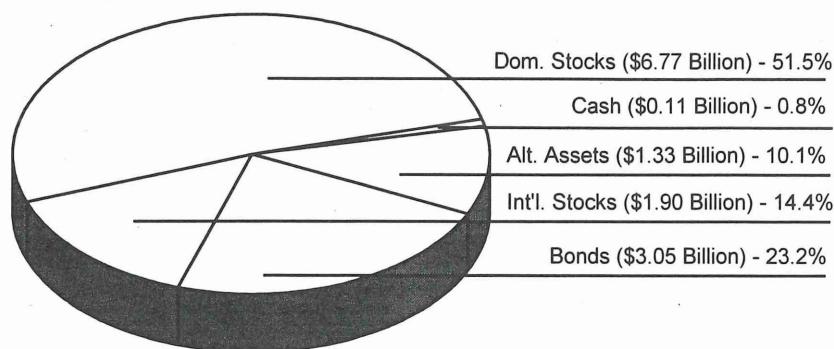
Domestic Stocks	45%
International Stocks	15
Bonds	24
Alternative Assets	15
Unallocated Cash	1

Figure 7. Composition of Basic Funds



## Basic Retirement Funds

Figure 8. Asset Mix as of June 30, 1996



Notes: Percentages may differ slightly due to rounding of values.  
Uninvested portions of the allocation to Alternative Assets are held in Domestic Stocks.

Figure 8 presents the actual asset mix of the Basic Funds at the end of fiscal year 1996. Historical asset mix data are displayed in Figure 9.

### Total Return Vehicles

The SBI invests the majority of the Basic Funds' assets in **common stocks** (both domestic and international). A large allocation is consistent with the investment time horizon of the Basic Funds and the advantageous long-term risk-return characteristics of common stocks. Including international stocks in the asset mix allows the SBI to diversify its holdings across world markets and offers the opportunity to enhance returns and reduce the risk/volatility of the total portfolio. The rationale underlying the inclusion of **private equity** (e.g., venture capital) is similar. However, the relatively small size of the private equity market presents a practical limit to the amount that may be invested in this asset class.

The Board recognizes that this sizable policy allocation to common stock and private equity likely will produce more volatile portfolio returns than a more conservative

policy focused on fixed income securities. 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 compensate for the additional volatility.

### Diversification Vehicles

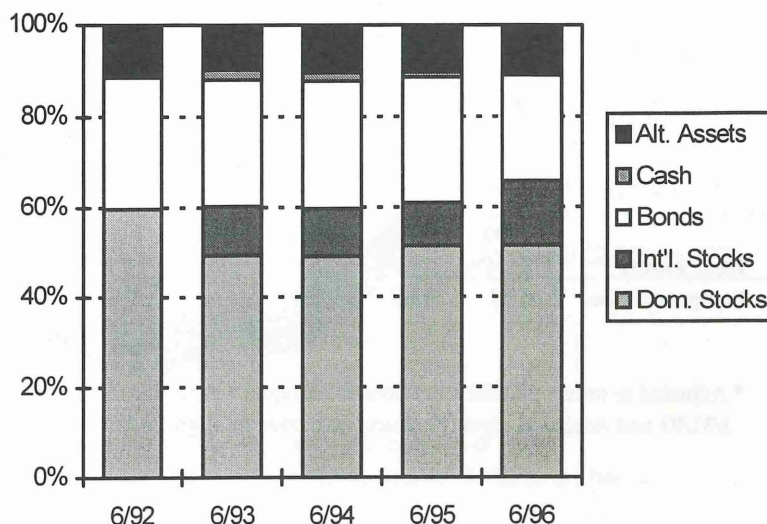
The Board includes other asset classes in the Basic Funds both to

provide some insulation against highly inflationary or deflationary environments and to diversify the portfolio sufficiently to avoid excessive return volatility.

**Real estate and resource** (oil and gas) investments provide an inflation hedge that other financial assets cannot offer. In periods of rapidly rising prices, these "hard" assets have appreciated in value at a rate at least equal to the inflation rate. Further, even under more normal financial conditions, such as low to moderate inflation, the returns on these assets are not highly correlated with common stocks. As a result, their inclusion in the Basic Funds serves to dampen return volatility.

The allocation to **bonds** 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, are expected to protect principal and generate significant capital gains. And, like real estate and resource funds, under normal financial conditions, bonds help to diversify the Basic Funds, thereby controlling return volatility.

Figure 9. Historical Asset Mix FY 1992-1996





## Basic Retirement Funds

### FY 1996 Changes

In October 1995, the Board increased the long term international target from 10% to 15% of the total fund and specified that a portion of the international allocation would focus on emerging markets. (More information on this change is included in the Major Policy Initiatives Section). Over the remainder of the fiscal year, assets were withdrawn from the domestic stock and bond segments to provide funds for this asset allocation change. By the end of the fiscal year, the asset allocation change was nearly completed and the international segment was 14.4% of the total fund.

At the close of fiscal year 1996, 10.1% of the Funds were invested in alternative assets. Until appropriate

vehicles are identified, uninvested portions of the alternative asset allocation are held in domestic stocks.

### Investment Management

All assets in the Basic Retirement Funds are managed externally by private money management firms retained by contract. In order to gain greater operating efficiency, the Basic Funds share the same domestic stock, international stock and bond managers with the Post Fund.

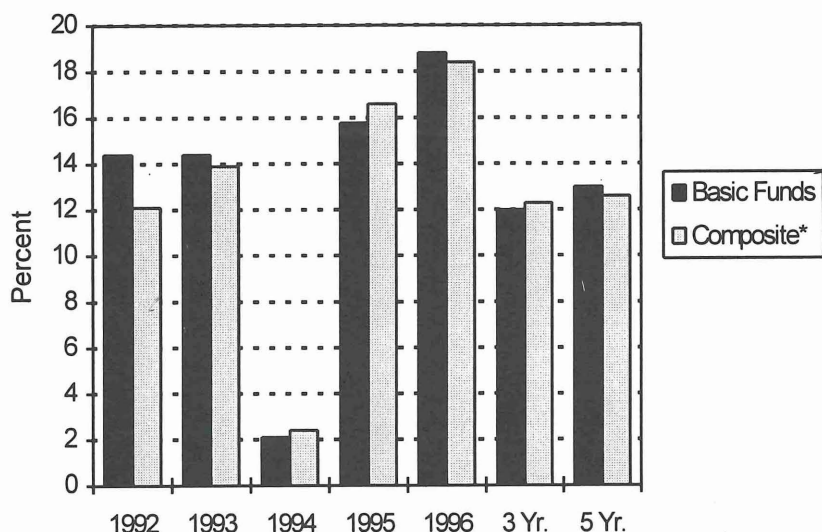
More information on the structure, management and performance of these pools of managers is included in the **Investment Pool** section of this report.

### Investment Performance

As stated earlier, the Basic Funds are expected to exceed the return of a composite of market indices over a five year period. Performance relative to this standard will measure two effects:

- The ability of the managers selected by the SBI, in aggregate, to add value to the returns available from the broad capital markets.
- The impact of the SBI's rebalancing activity. The SBI rebalances the total fund when market movements take the stock or bond segments above or below their long term asset allocation targets. This policy imposes a low risk discipline of "buy low-sell high" on a total fund basis.

Figure 10. Basic Funds' Performance vs. Composite Index



	1992	1993	1994	1995	1996	Annualized 3 Yr.	Annualized 5 Yr.
Basic Funds	14.4%	14.4%	2.1%	15.8%	18.8%	12.0%	13.0%
Composite Index*	12.1	13.9	2.5	16.6	18.4	12.3	12.6

\* Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93.

For the five year period ending June 30, 1996, the Basic Funds outperformed the composite index by 0.4 percentage point annualized. The primary contributors to the value added came from above index performance by the international stock, bond and private equity segments of the portfolio. Value added by these groups of managers was sufficient to counterbalance below index performance by the domestic stock segment during the period. The SBI's policy of periodically rebalancing back to asset allocation targets also contributed importantly to the overall value added during the last five years.

Actual returns relative to the total fund composite index over the last five years are shown in Figure 10. For more information on the performance of each asset class, please refer to the **Investment Pool** section of this report.

## Post Retirement Fund

*The assets of the Post Retirement Fund are used to finance monthly annuities to retired public employees. These annuities may be adjusted upwards over the life of a retiree based on a formula that reflects both inflation and investment performance. On June 30, 1996, the Post Fund had a market value of \$11.9 billion and more than 82,000 retiree participants.*

The Post Retirement Fund includes the assets of retired public employees covered by nine state-wide retirement plans; the eight plans which participate in the Basic Retirement Funds as well as the Legislative and Survivors Retirement Fund.

### Benefit Increase Formula

The retirement benefit increase formula applicable to the Post Retirement Fund was changed through legislation enacted by the 1992 Legislature. The new formula was effective beginning in fiscal year 1993 and is based on a combination of two components:

— **Inflation Component.** Each year, retirees receive an inflation-based adjustment equal to 100% of inflation, up to a maximum of 3.5% specified in statute. The inflation component is granted regardless of investment performance. The 3.5% cap maintains the actuarial soundness of the entire plan and is the difference between the 8.5% return assumption for the Basic Funds, and the 5.0% return assumption for the Post Fund.

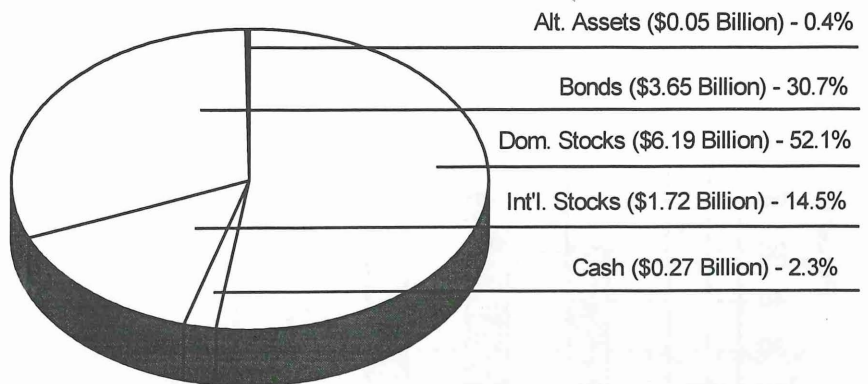
— **Investment Component.** Each year, retirees also receive an investment-based adjustment, *provided* net investment gains are above the amount needed to finance the Post Fund's actuarial assumption of 5% and the inflation adjustment. Investment gains and losses will be spread over five years to smooth out the volatility of returns. In addition, all accumulated investment losses must be recovered before an investment-based adjustment is granted.

Because the investment-based component of the new formula was not implemented fully during the initial years, a temporary transition adjustment was available during a phase-in period. The transition adjustment provided in law was:

FY 1993	1.00%
FY 1994	0.75
FY 1995	0.50
FY 1996	0.25

By statute, retirees received *either* the investment-based component *or* the transition adjustment, whichever was higher, for the respective year.

Figure 11. Asset Mix as of June 30, 1996



Notes: Percentages may differ slightly due to rounding of values.

Uninvested portions of the Alternative Assets allocation are held in Bonds.



## Post Retirement Fund

### Advantages

The new formula has two primary advantages:

- It provides benefit increases that are more sensitive to inflation than those granted under the old formula.
- It allows the Post Fund to maximize the long-term earning power of its assets. Without the need to generate the higher levels of current income required under the old formula, the Post Fund can increase its stock exposure and thereby enhance its prospects for higher total rates of return over the long run.

### Investment Objective

#### Time Horizon

The time horizon of the Post Fund is 15-20 years and corresponds to the length of time a typical retiree can be expected to draw benefits. While this is shorter than the time horizon of the Basic Funds, it is still sufficiently long to allow the Board to take advantage of the long run return opportunities offered by common

stocks in order to meet its actuarial return target as well as to finance retirement benefit increases.

#### Return Objective

The Board measures the performance of the Post Retirement Fund relative to a composite of market indices that is weighted in a manner that reflects its long-term asset allocation policy. The Post Fund is expected to exceed its composite index over a five year period. *Performance is reported net of all fees and costs* to assure that the Board's focus is on true net return.

### Asset Allocation

The Board revised its asset allocation strategy for the Post Fund in fiscal year 1993 in order to reflect the goals associated with the new post retirement benefit increase formula. Throughout fiscal year 1993, the actual asset mix of the Post Fund gradually moved toward a 50% allocation to common stocks. During fiscal year 1994, the Board added allocations to international stocks and alternative investments. The current long-term asset allocation for the Post Fund is as follows:

Domestic Stocks	50%
Int'l. Stocks	15
Bonds	27
Alternative Assets	5
Unallocated Cash	3

The Post Fund's year-end asset mix is presented in Figure 11. Historical asset mix data are shown in Figure 12.

The SBI invests the majority of the Post Fund's assets in **common stocks** (both domestic and international). A large allocation is consistent with the moderately long time horizon of the Post Fund and the advantageous long term risk-return characteristics of common stocks. Including international stocks in the asset mix allows the SBI to diversify its holdings across world markets and offers the opportunity to enhance returns and reduce the risk/volatility of the total portfolio.

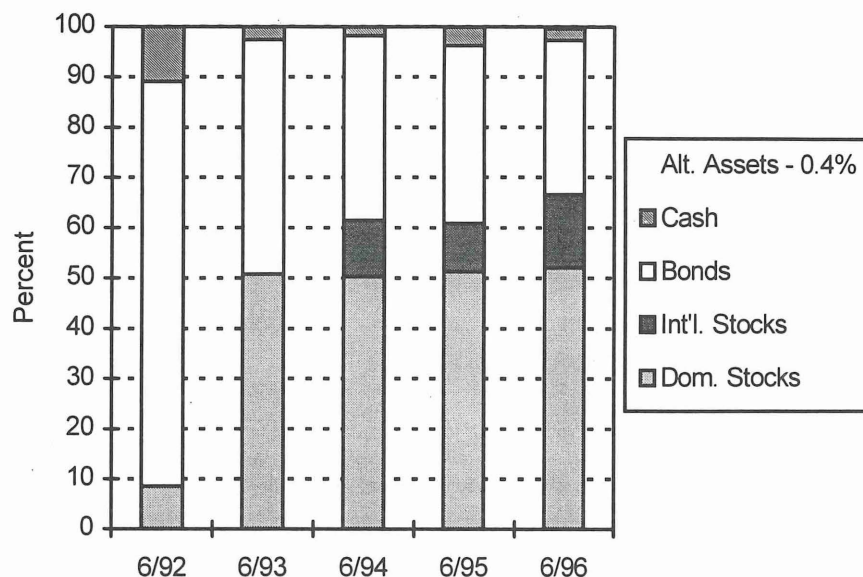
As with the Basic Funds, the Board recognizes that this sizable allocation will be likely to produce more volatile portfolio returns than a more conservative policy focused on fixed income securities. It is understood that this policy may result in quarters or even years of disappointing results. Nevertheless, the long run return benefits of this policy are expected to compensate for the additional volatility.

#### Diversification Vehicles

The Board includes other asset classes in the Post Fund both to provide some insulation against highly deflationary environments and to diversify the portfolio sufficiently to avoid excessive return volatility.

The **bonds** in the Post Fund act as a hedge against a deflationary economic environment. In the event of a major deflation, high quality fixed income assets, particularly long term bonds, are expected to protect principal and generate significant gains. And, under more normal

Figure 12. Historical Asset Mix FY 1992-1996



## Post Retirement Fund

financial conditions, bonds diversify the Post Fund, thereby controlling return volatility on a year-to-year basis.

**Yield oriented alternative investments** provide the opportunity for higher long term returns than those typically available from bonds yet still generate sufficient current income to be compatible with the objectives of the Post Fund. Typically, these investments (e.g. business loan participations, mortgage loan participations and income producing private placements) are structured more like fixed income securities with the opportunity to participate in the appreciation of the underlying assets. While these investments may have an equity component, they display a return pattern more like a bond. As such they will help reduce the volatility of the total portfolio, but should also generate higher returns

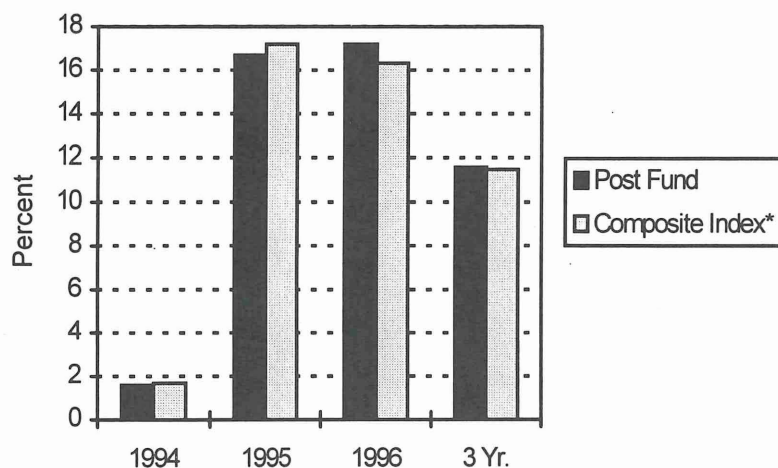
relative to more traditional bond investments.

### FY 1996 Changes

In October 1995, the board increased the long term international target from 10% to 15% of the total fund and specified that a portion of the international allocation would focus on emerging markets. (More information on this change is included in the Major Policy Initiatives Section). Over the remainder of the fiscal year, assets were withdrawn from the domestic stock and bond segments to provide funds for this asset allocation change. By the end of the fiscal year, the asset allocation change was nearly complete and the international segment was 14.5% of the total fund.

While the Board made several commitments to yield oriented alternative investments during the year, the market value of the

Figure 13. Post Fund's Performance vs. Composite Index



	1994	1995	1996	Annualized 3 Yr.
Post Fund	1.6%	16.7%	17.2%	11.6%
Composite Index*	1.7	17.2	16.3	11.5

\* Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93.

Figure 14. Historical Benefit Increases Granted

Fiscal Year*	Benefit Increase
1987	8.1%
1988	6.9
1989	4.0
1990	5.1
1991	4.3
1992	4.6
1993**	6.0
1994**	4.0
1995**	6.4
1996**	8.0

\* Payable beginning January 1, of the following calendar year.

\*\* Benefit increase granted under the new formula.

alternative segment was only 0.4% of the total fund at the close of the fiscal year. The Board expects this percentage to increase gradually over the next three to five years. Until appropriate vehicles are identified, the uninvested portion of the alternative asset allocation is held in bonds.

### Investment Management

In July 1993, assets of the Post Fund were transferred to external managers. In order to gain greater operating efficiency, the Basic and Post Funds have shared the same domestic stock, bond and international stock managers since that time.

More information on the structure, management and performance of these pools of managers is included in the **Investment Pool** section of this report.



## Post Retirement Fund

### Investment Performance

#### Total Fund Performance

As stated earlier, the Post Fund is expected to exceed the return of a composite of market indices over a five year period. Since the asset allocation changed dramatically during fiscal year 1993, performance relative to this standard is available only since fiscal year 1994. The Post Fund's performance exceeded its composite market index by 0.1 percentage point for the three year period since July 1, 1993.

More information on the performance of each asset class is included in the **Investment Pool** section of this report.

Actual returns relative to the total fund composite index over the last three years are shown in Figure 13.

#### Benefit Increase

The Post Fund will provide a benefit increase of 8.0% for fiscal year 1996 payable beginning January 1, 1997. As noted earlier, this increase is comprised of two components:

- **Inflation component** of 2.8% which is equal to 100% of the reported Consumer Price Index for wage earners (CPI-W) increase for the twelve months ending June 30, 1996. (This is the same inflation index used to calculate increases in Social Security payments).
- **Investment component** of 5.2%. This represents a portion of the market value increase that exceeds the amount needed to cover the actuarial assumed rate of return (5.0%) and the inflation adjustment.

Benefit increases granted for the past ten years are shown in Figure 14. The 8.0% increase granted for fiscal year 1996 represents the fourth post

retirement adjustment provided under the new benefit increase formula described above. Prior to fiscal year 1993, the benefit increase formula was dependent on the level of excess realized income generated by the Post Fund.

More detail on the calculation for the fiscal year 1996 benefit increase is included in the **Statistical Data** section.

## Investment Pools

*To gain greater operating efficiency, external managers are grouped into several "Investment Pools" which are segregated by asset class. The various retirement funds participate in one or more of the pools corresponding to their individual asset allocation strategies.*

The Basic Retirement Funds, Post Retirement Fund and Supplemental Investment Fund share many of the same stock and bond managers. This is accomplished by grouping managers together, by asset class, into several Investment Pools. The individual funds participate in the Investment Pools by purchasing "units" which function much like shares of a mutual fund.

This investment management structure allows the State Board of Investment (SBI) to gain greater operating efficiency within asset classes and to keep management costs as low as possible for all participants.

### Domestic Stock Pool

The Basic Retirement Funds have participated in the Domestic Stock Pool since its inception in January 1984. The Post Retirement Fund has participated in the Pool since July 1993. In addition, the Growth Share Account in the Supplemental Investment Fund has utilized the actively managed portion of the Pool since April 1988. As of June 30, 1996, the dollar value of each fund's participation in the Pool was:

Basic Funds           \$6.8 billion  
(active, passive and semi-passive)

Post Fund             \$6.2 billion  
(active, passive and semi-passive)

Growth Share  
Account               \$149 million  
(active only)

### Management Structure

The SBI uses a three-part approach to the management of the Domestic Stock Pool:

- **Active Management.** At the end of fiscal year 1996, approximately 45% of the Stock Pool was actively managed by a group of 13 external money managers. The assets allocated to each manager ranged from \$160-800 million.

In addition, the actively managed segment of the Pool includes 9 managers in the SBI's Emerging Manager Program. Each Emerging Manager has a portfolio of approximately \$45 million which gives the entire Emerging Manager Program about the same weight as an average single manager in the rest of the active manager program.

- **Semi-Passive Management.** At the end of fiscal year 1996, approximately 26% of the Domestic Stock Pool was managed by a group of 3 semi-passive external money managers with portfolios of approximately \$1.1 billion each.
- **Passive Management.** At the end of fiscal year 1996, approximately 29% of the Stock Pool was managed passively by a single manager.

The goal of the *actively managed segment* of the Domestic Stock Pool is to add value. Each active manager is expected to add incremental value

over the long run relative to a customized benchmark which reflects its unique investment approach or style.

This type of active manager structure can result in misfit or style bias. "Misfit" can be defined as the difference between the aggregate benchmarks of the active managers and the asset class target (i.e., the Wilshire 5000). Historically, the SBI experienced three major areas of misfit in its active manager group:

- persistent over-exposure to small capitalization stocks
- persistent over-exposure to growth oriented stocks
- persistent under-exposure to yield oriented stocks

The SBI attempts to compensate for active manager misfit through the use of a *completeness fund*. A "completeness fund" is so named because it is intended to fill in, or complete, any areas of market exposure that are not being covered by the aggregate benchmarks of the active managers. This strategy is designed to allow the value added by individual active managers to benefit the total Domestic Stock Pool. It should also result in a decrease in the volatility of returns for the entire Stock Pool relative to the asset class target since it negates the impact of style bias within the active manager group.

The SBI's completeness fund had been passively managed since it was first introduced in October 1990.



## Investment Pools

During fiscal year 1995, the completeness fund moved from being entirely passively managed to a structure that was half passive/half semi-passive. At the start of fiscal year 1996, the completeness fund was allocated entirely to semi-passive management. Semi-passive approaches provide the potential to outperform the completeness fund benchmark, but also incorporate procedures that constrain the level of risk/volatility relative to the benchmark.

### FY 1996 Changes

Two managers, Lynch & Mayer and Jundt Associates, were deleted from the active manager group during the fiscal year.

As noted above, the completeness fund moved from half-passive/half semi-passive to full semi-passive management at the start of fiscal year 1996. At the same time, the benchmark for the passive component moved from the completeness fund to the Wilshire 5000.

A description of each domestic stock manager's investment approach is included in the **Investment Manager Summaries** section.

### Investment Performance

A comprehensive monitoring system has been established to ensure that the many elements of the Domestic Stock Pool conform to the SBI's investment policies. Customized performance benchmarks have been developed for each active and semi-passive stock manager. These benchmarks enable the SBI to evaluate the managers' results, both individually and in aggregate, with respect to risk incurred and returns achieved.

Two primary long run **risk objectives** have been established for the domestic stock managers:

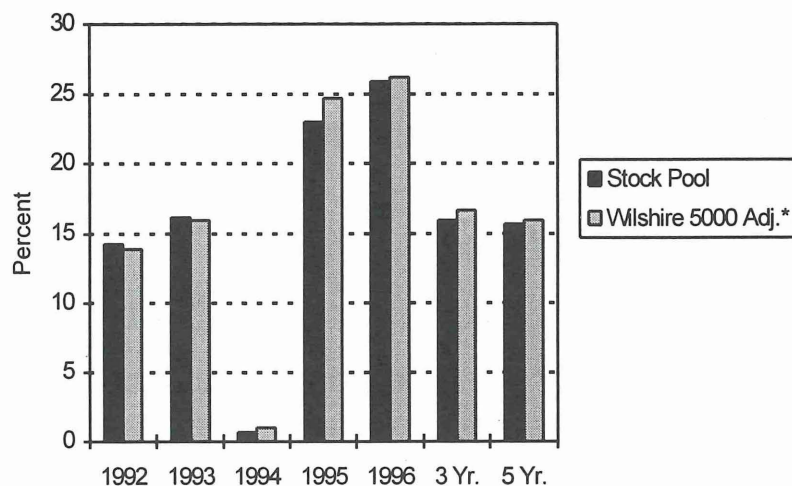
- **Investment Approach.** Each manager (active, semi-passive, or passive) is expected to hold a portfolio that is consistent, in terms of risk characteristics, with the manager's stated investment approach.
- **Diversification.** Each active domestic stock manager is expected to hold a highly non-diversified portfolio, while the passive and semi-passive managers are expected to hold more diversified portfolios. In the short run, the active stock managers may depart from their risk targets as part of their specific investment strategies.

The domestic stock managers successfully fulfilled their long-term risk objectives during fiscal year 1996. In general, the managers constructed portfolios consistent with

their stated investment approaches and maintained levels of diversification that were appropriate to their respective active, semi-passive and passive approaches.

The Board's **return objectives** for its active and semi-passive stock managers are measured against the performance of customized indices constructed to represent a manager's specific investment approach. This type of custom index is commonly referred to as a "benchmark portfolio." A benchmark portfolio takes into account the equity market forces that at times favorably or unfavorably impact certain investment styles. Thus, an individual benchmark is a more appropriate return target against which to judge a manager's performance than a broad market index.

Figure 15. Domestic Stock Pool Performance FY 1992-1996



	1992	1993	1994	1995	1996	3 Yr.	5 Yr.
Stock Pool	14.3%	16.2%	0.7%	23.0%	25.9%	16.0%	15.7%
Wilshire 5000 Adj.*	13.9	16.0	1.0	24.7	26.2	16.7	16.0

\* Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93.

## Investment Pools

Individual active managers are expected to exceed their custom benchmark by 0.50-1.00 percentage point annualized, over time. The semi-passive managers are expected to exceed their benchmark by 0.15-0.30 percentage point, over time, and the passive manager is expected to track its market index within  $\pm 0.60$  percentage point annually.

In aggregate, the Domestic Stock Pool trailed the Wilshire 5000 for the fiscal year by 0.3 percentage point. The Pool under performed the asset class target due to changes in the pool structure which were described in the previous section. In addition, the completeness fund benchmark did not exactly offset the bias in the active manager program. The resulting misfit produced a small loss relative to the asset class target for the year. See Figure 15 for more detail on the historical performance of the entire Pool.

Individual manager performance for fiscal year 1996 is shown in Figure 16. While the returns for all the managers substantially exceeded the historical returns available from the domestic stock market, individual manager performance relative to their respective benchmarks was mixed. Eight active managers outperformed their benchmarks while five under performed. Two of the three semi-passive managers outperformed the completeness fund benchmark. The passive manager matched its target during the transition from the completeness fund benchmark to the Wilshire 5000 index.

Performance data for the individual managers in the Emerging Manager Program are presented in Figure 17. During fiscal year 1996, staff worked closely with each of the emerging managers to develop more appropriate benchmarks against which to measure their performance. The emerging managers also had

Figure 16. Domestic Stock Manager Performance FY 1996

	Actual Return	Benchmark Return
<b>Active Managers</b>		
Alliance Capital	23.0%	24.4%
Brinson Partners	30.8	22.9
Forstmann Leff	32.1	24.3
Franklin Portfolio	23.8	23.1
GeoCapital	26.7	36.7
Investment Advisers	26.3	23.1
IDS Advisory	24.5	25.7
Independence Associates	26.1	26.6
Jundt Associates	22.4	20.5
Lincoln Capital	32.3	28.1
Oppenheimer	28.0	25.2
Waddell & Reed	16.4	20.8
Weiss Peck & Greer	41.9	23.4
<b>Semi-Passive Managers</b>		
Franklin Portfolio	25.2	26.1
J.P. Morgan	26.4	26.1
Barclays Global Investors	28.4	26.1
<b>Passive Manager</b>		
Barclays Global Investors	25.5	25.5
<b>Aggregate Stock Pool*</b>	<b>25.9</b>	<b>25.7</b>
<b>Performance Standard</b>		
Wilshire 5000	26.2	

\* Includes Emerging Manager Program, see below.

Figure 17. Emerging Manager Performance FY 1996

	Actual Return	Benchmark Return
CIC Asset Management	27.6%	24.8%
Cohen Klingenstein & Marks	25.0	20.7
Compass Capital	24.2	27.2
Kennedy Capital	35.5	26.3
New Amsterdam	21.4	19.2
Valenzuela Capital	23.7	23.6
Wilke/Thompson	16.3	27.7
Winslow Capital	19.2	22.2
Zevenbergen Capital	23.6	23.6

mixed performance for the fiscal year. Five managers outperformed their benchmarks, three managers under performed and one manager matched its benchmark.

Historical information on individual manager performance and portfolio characteristics is included in the **Statistical Data** section. Section II of the Annual Report provides **Summarized Asset Listings** for each manager and the Pool in aggregate.



## Investment Pools

### Bond Pool

The Basic Retirement Funds have participated in the Bond Pool since its inception in July 1984. The Post Retirement Fund has participated in the Pool since July 1993. In addition, the Bond Market Account in the Supplemental Investment Fund has utilized the actively managed portion of the Pool since July 1986. As of June 30, 1996, the dollar value of each fund's participation in the Pool was:

Basic Funds           \$3.0 billion  
(active and semi-passive)

Post Fund             \$3.7 billion  
(active and semi-passive)

Bond Market          \$24 million  
(active only)

#### Investment Management

The SBI uses a two-part approach to the management of the Bond Pool:

— **Active Management.** No more than one-half of the Bond Pool will be actively managed. At the end of fiscal year 1996, approximately 49% of the Bond Pool was actively managed by a group of six external money managers with portfolios of \$200 million-\$1 billion each.

— **Semi-Passive Management.** At least one-half of the assets allocated to the Bond Pool will be managed by semi-passive managers. At the end of fiscal year 1996, approximately 51% of the bond segment was invested by three managers with portfolios of approximately \$1 billion each.

The group of **active** bond managers was selected for its blend of investment styles. Each of the managers focuses on high quality fixed income securities across all sectors of the market. 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 Pool as a deflation hedge, the active managers are restricted regarding the minimum average life of their portfolios. This requirement is designed to prevent the total Pool from assuming an excessively short-lived position and thus, severely diluting its deflation hedge capacity. In addition, to avoid extreme variability in total returns, the SBI constrains the maximum duration (a measure of average life) of the managers' portfolios to a band of three to seven years. The active bond managers focus on high quality (BAA or better) bonds. Several of the managers are permitted to invest a limited portion of their portfolios in non-US issues and BB- and B- rated dollar denominated debt. The

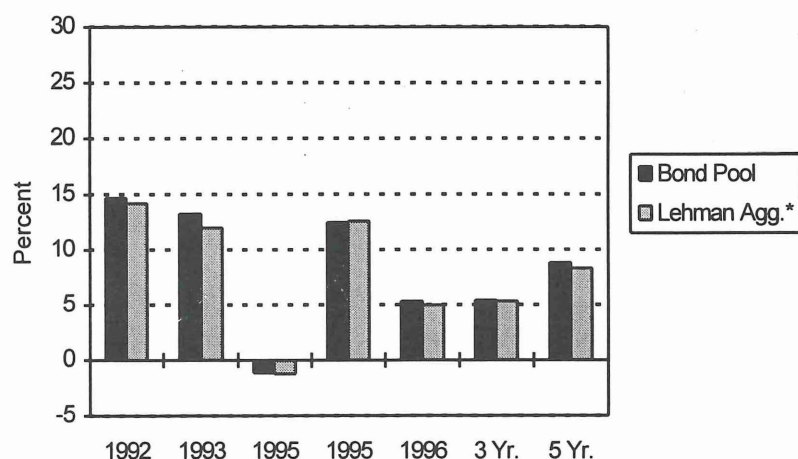
managers use this additional authority on a tactical basis.

The goal of the **semi-passive** managers is to add incremental value to the Lehman Brothers Aggregate Bond Index through the superior selection of bonds for the portfolios. The managers adhere very closely to characteristics of the Lehman Aggregate and essentially match its duration and maturity structure. Semi-passive managers seek to add value by exploiting perceived mispricings among individual securities or by making minor alterations in the sector weightings within the portfolio. Although the managers seek to exceed the performance of the index, the possibility exists that the semi-passive approach may slightly underperform the target index during some periods.

#### FY 1996 Changes

During fiscal year 1996, Fidelity

Figure 18. Bond Pool Performance FY 1992-1996



	1992	1993	1994	1995	1996	Annualized 3 Yr.	Annualized 5 Yr.
Bond Pool	14.7%	13.3%	-1.1%	12.5%	5.3%	5.4%	8.8%
Lehman Aggregate*	14.2	12.0	-1.2	12.6	5.0	5.3	8.3

\*Lehman Brothers Aggregate Bond Index. Prior to July 1994, the Salomon Broad Investment Grade Bond Index was used.

## Investment Pools

Asset Management, one of the SBI's semi-passive bond managers, resigned the SBI's account and BlackRock Financial Management was added to the semi-passive group. In addition, TCW was deleted from the active manager group during the fiscal year.

A description of each bond manager's investment approach is included in the **Investment Manager Summaries** section.

### Investment Performance

The SBI constrains the **risk** of the active bond managers' portfolios to ensure that they fulfill their deflation hedge and total fund diversification roles. As noted earlier, the managers are restricted in terms of the duration of their portfolios and the quality of their fixed income investments.

The active and semi-passive bond managers successfully fulfilled their long-term risk objectives during

fiscal year 1996. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of quality and duration.

As with the stock pool, the **returns** of each of the Board's bond managers are compared to an appropriate benchmark. As of January 1, 1996, all the bond managers, both active and semi-passive, use the Lehman Aggregate as their performance index. Due to the broad diversification of each manager, customized benchmarks are not deemed necessary for the bond managers at this time.

If half of the Bond Pool is actively managed and half is semi-passively managed, the entire Pool is expected to exceed its target, the Lehman Aggregate index, by 0.20-0.35 percentage point annualized, over time. Individual active managers are

expected to exceed the target by 0.25-0.50 percentage point annualized, over time, and each semi-passive manager is expected to exceed the target by 0.15-0.25 percentage point annualized, over time.

In aggregate, the Pool exceeded the Lehman Aggregate by 0.3 percentage point for the most recent fiscal year. Performance over three and five years has been positive, exceeding the index by 0.1 percentage point annualized over the three year period and 0.5 percentage point over the five year period ending June 30, 1996. In general, the decision to hold portfolios with a modestly longer duration than the market accounted for the out performance over the longer term.

The relative performance of the managers was mixed over fiscal year 1996; three of the active managers and one semi-passive manager added value. See Figure 18 for historical performance of the entire Pool. Individual manager performance for fiscal year 1996 is shown in Figure 19.

Historical information on individual manager performance and portfolio characteristics is included in the **Statistical Data** section. Section II of the Annual Report provides **Summarized Asset Listings** for each manager and the Pool in aggregate.

## International Stock Pool

The SBI began its international stock program in October 1992. The Basic Retirement Funds have participated in the International Stock Pool since its inception. The Post Retirement Fund began utilizing the Pool in October 1993. The International Share Account has participated in the Pool since September 1994. On June

Figure 19. Bond Manager Performance FY 1996

	Actual Return	Benchmark Return
<b>Active Managers</b>		
BEA Associates	4.5%	5.0%
Investment Advisors	4.7	5.0
IDS Advisory	4.0*	5.3*
Miller, Anderson & Sherrerd	6.1	5.0
Standish, Ayer & Wood	5.8	5.0
Western Asset Management	5.7	5.0
<b>Semi-Passive Managers</b>		
BlackRock	0.4**	0.6**
Goldman Sachs	5.5	5.0
Lincoln Capital	5.0	5.0
<b>Aggregate Bond Pool</b>	<b>5.3</b>	<b>5.0</b>
<b>Performance Standard</b>		
Lehman Aggregate	5.0	

\* Prior to January 1996, manager had gov't./corporate mandate only.

\*\* Manager not retained until April 1, 1996. Performance reflects April-June 1996 only.



## Investment Pools

30, 1996 the dollar value of each fund's participation in the International Stock Pool was:

Basic Funds \$1.9 billion  
(active and passive)

Post Fund \$1.7 billion  
(active and passive)

International Share Account \$14 million  
(active and passive)

### Management Structure

The SBI uses a two part approach to the management structure of the International Stock Pool:

- **Active Management.** At least one-half of the International Stock Pool will be actively managed. At the end of fiscal year 1996, approximately 51% of the Pool was actively managed by a group of 8

external money managers with portfolios ranging from \$100-\$300 million each. Six of these managers focus on developed markets and two are emerging markets specialists.

- **Passive Management.** No more than one-half of the International Stock Pool will be passively managed. At the end of fiscal year 1996, approximately 49% of the International Stock Pool was passively managed by a single manager.

The *actively managed* segment of the International Stock Pool is designed to add value to the asset class target. Each active manager is expected to add incremental value over the long run relative to the Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE Free).

Two of the Board's active managers (Baring and Brinson) follow an active country/passive stock approach where the primary focus is on country selection and currency management rather than stock selection.

Four active international managers (Marathon, Rowe Price-Fleming, Scudder and Templeton) use a variety of investment approaches in an attempt to maximize market value and outperform the index, over time. These managers address currency management as part of their investment process. Their views on currency may be factored into their country and security selection or they may explicitly hedge currency exposure on an opportunistic basis.

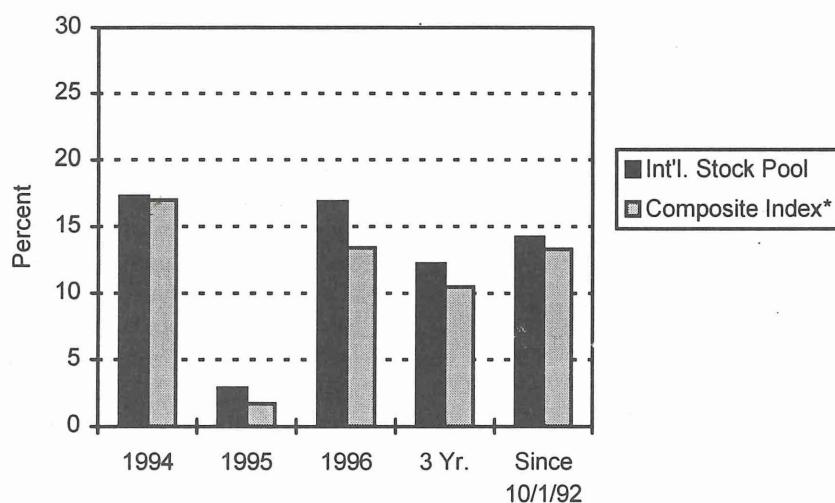
The remaining two active managers (Genesis and Montgomery) are emerging markets specialists and are expected to add incremental value, over time, to the Morgan Stanley Capital International index of markets in developing countries throughout the world (MSCI-Emerging Markets Free).

The *passively managed* portion of the International Stock Pool is managed by State Street Global Advisors and is designed to consistently and inexpensively track the EAFE Free index. The currency exposure of the index fund is managed in a dynamic hedging program that is designed to avoid currency losses during periods of US dollar strength. The manager of this currency overlay program is Record Treasury Management.

### FY 1996 Changes

During fiscal year 1996, the Board allocated approximately 15% of the international pool to emerging markets and three emerging markets specialists were retained to manage this portion of the program. By the close of the fiscal year, Montgomery Asset Management was fully funded

Figure 20. International Stock Pool Performance



	Annualized				
	1994	1995	1996	3 Yr.	Since 10/1/92
Int'l. Stock Pool	17.3%	2.9%	16.9%	12.2%	14.2%
Composite Index*	17.0	1.7	13.4	10.5	13.3

\* EAFE Free through 4/31/96. Composite of EAFE-Free and Emerging Markets Free since 5/1/96.

## Investment Pools

and Genesis Asset Managers received approximately half of its allocation. Genesis will receive the remaining half of its allocation during fiscal year 1997. The third firm, City of London, is expected to receive its allocation during fiscal year 1997 as well.

As noted above, the SBI retained Record Treasury Management to manage a currency overlay program for the EAFE index fund. The program will be phased in during the latter half of fiscal year 1996 and the first half of fiscal year 1997.

More information on these changes is included in the **Major Policy Initiatives** section of this report.

A description of each international stock manager's investment approach

is included in the **Investment Manager Summaries** section.

### Investment Performance

Similar to the Domestic Stock Pool, two long run *risk objectives* have been established for the international stock managers:

- **Investment Approach.** Each manager (active or passive) is expected to hold a portfolio that is consistent with the manager's stated investment approach.
- **Diversification.** Each active international stock manager is expected to hold a highly non-diversified portfolio, while the index manager is expected to hold a well diversified portfolio which tracks its target index.

The international stock managers successfully fulfilled their long-term risk objectives during fiscal year 1996. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of diversification.

At the present time, the Board's *return objectives* for the international stock program are stated relative to the Morgan Stanley Capital International (MSCI) indices. The indices are capitalization weighted and measured in U.S. dollar terms, unhedged. While the Board would prefer to measure performance relative to customized benchmarks similar to those used for domestic stock managers, such customized benchmarks are not yet available for international assets. In the future, SBI staff, in conjunction with the SBI's consultants and managers, intend to develop more appropriate benchmarks for the international managers within the Pool.

If half of the International Stock Pool is actively managed and half is passively managed, the entire Pool is expected to exceed the composite index by 0.25-0.75 percentage point annualized, over time. Individual active managers are expected to exceed this index by at least 1.00 percentage point annualized, over time, and the index manager is expected to track the index  $\pm 0.50$  percentage point, annually.

Performance results for the International Stock Pool are shown in Figure 20. In aggregate, the Pool outperformed the target for the year by 3.5 percentage points. Performance since inception in October 1992 (3.75 years) has exceeded the index by 0.9 percentage point annualized.

Individual manager performance during fiscal year 1996 is shown in Figure 21. With the exception of

Figure 21. International Manager Performance FY 1996

	Actual Return	Benchmark
<b>Active Managers</b>		
Baring International	20.1%	13.3%
Brinson Partners	25.6	13.3
Marathon Asset Mgmt.	20.3	13.3
Rowe Price-Fleming	18.0	13.3
Scudder, Stevens & Clark	21.7	13.3
Templeton Investment Counsel	17.6	13.3
<b>Emerging Markets Managers</b>		
Genesis Asset Managers	1.4*	0.2*
Montgomery Asset Mgmt.	1.6*	0.2*
<b>Passive Manager</b>		
State Street Global Advisors	13.6	13.3
<b>Aggregate International Pool**</b>	<b>16.9</b>	
<b>Performance Standard</b>		
Composite Index**	13.4	

\* Manager retained May 1, 1996. Performance reflects May-June 1996 only.

\*\* Includes impact of currency overlay program which was initiated in December 1995. For the period December 1995-June 1996, the currency overlay program added 0.2% to the EAFE index fund.

\*\*\* EAFE-Free through 4/31/96. Composite of EAFE-Free and Emerging Markets Free since 5/1/96. At the close of the fiscal year, the composite was weighted 91.8%% EAFE Free and 8.2% Emerging Markets Free.



## Investment Pools

Genesis and Montgomery, which were not retained until May 1996, all the active international managers outperformed the index for the fiscal year. The Pool also benefited from positive tracking error in the passively managed portion of the program.

More information on the performance and portfolio composition of individual managers is included in the **Statistical Data** section. Section II of the Annual Report provides **Summarized Asset Listings** for each manager and the Pool in aggregate.

### Alternative Investment Pools

Like the stock and bond segments, alternative assets (private equity, real estate and resource fund investments) are also managed on a pooled basis. However, due to the nature of these investments, separate pools have been established for the Basic and Post Retirement Funds and each fund owns 100% of the assets in its respective pool.

#### Statutory Constraints

The statutory constraints regarding the SBI's investments to alternative assets are the same for both the Basic and Post Funds:

- **Real Estate.** State statutes authorize investments in real estate through commingled funds, limited partnerships and trusts, including real estate investment trusts (REIT's). Regardless of its form, each investment must involve at least four other participants and the SBI's investment may not exceed 20% of a given investment. State law does not permit the SBI to invest in real estate through direct

investments, separate accounts or individual transactions.

- **Private Equity.** By law, the SBI is authorized to invest in private equity through limited partnerships and corporations. As with real estate investments, each private equity investment must involve at least four other investors, and the Board's investment may not exceed 20% of a particular partnership or corporation.
- **Resource Funds.** The SBI invests in oil and gas partnerships specifically structured for pension funds and other tax-exempt investors. As with real estate and private equity investments, there must be four other investors and the Board may invest no more than 20% of a partnership's total capital.

### Alternative Investments Basic Funds

The Basic Retirement Funds began making investments in alternative assets in the early 1980's. Given their long investment time horizon, the Basic Funds are especially well suited to alternative investments that are equity oriented and focus on long-term capital gains. As a result, up to 15% of the Basic Retirement Funds are targeted for alternative investments. A breakdown of the segment is shown in Figure 22. As of June 30, 1996 the market value of current alternative investments was \$1.3 billion, or 10.1% of the Basic Funds.

Descriptions of each of the Basic Funds' alternative investments are included in the **Investment Manager Summaries** section.

### Real Estate

By investing in several open-end and closed-end commingled funds, the Basic Funds have created a large core portfolio of real estate that is broadly diversified by property type, location and financing structure. The core portfolio is designed to reflect the composition of the aggregate US real estate market and, as such, is expected to earn at least real estate market returns.

The broad diversification of the core portfolio enables the SBI to select less diversified, special orientation managers for the remaining portion of the real estate segment. 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 manager's experience, investment strategy and performance history.

**During fiscal year 1996**, the SBI approved one new real estate commitment in Zell/Merrill Lynch Real Estate IV. The SBI will continue to review and add new real estate investments as attractive opportunities are identified.

#### Private Equity Pool

The Basic Funds maintain a private equity portfolio that is broadly diversified across three dimensions: location, industry type and stage of development of individual portfolio companies. Prospective private equity managers are reviewed and selected based, primarily, on the manager's experience, investment strategy, diversification potential and performance history.

**During fiscal year 1996**, the Board approved commitments to ChiCorp's Banc Fund IV, the Kohlberg, Kravis and Robert (KKR) 1996 Fund and in Golder Thoma V. The SBI will continue to review and add new

## Investment Pools

private equity investments, as attractive opportunities are identified, to replenish commitments that will expire within the next five years.

### Resource Fund Pool

The oil and gas partnerships in the Basic Retirement Funds concentrate their investments in producing properties and royalty interests that are diversified geographically and/or geologically. Resource investments are selected based on the manager's experience, investment strategy and performance history.

During fiscal year 1996, the SBI approved a resource commitment in First Reserve Fund VII. The SBI plans to continue to review resource investments for possible inclusion in the Pool.

### Investment Performance

The SBI reviews performance of its *real estate* investments relative to two standards:

- The Wilshire Associates Real Estate Index, an index of commingled real estate funds.
- Inflation, as measured by changes in the Consumer Price Index (CPI).

During fiscal year 1996, the SBI's real estate pool outperformed the index and exceeded the rate of inflation (SBI real estate 3.6%, Wilshire Real Estate Index 2.9%, CPI 2.8%). Comparisons over the last five years show that the real estate pool outperformed the real estate index but trailed the rate of inflation (SBI real estate -1.5% annualized, Wilshire index -2.4% annualized, CPI 2.9% annualized). As the above data illustrate, the real estate market as a whole is just beginning to strengthen after a lengthy period of negative performance.

The SBI's *private equity* pool provided a 40.3% return in fiscal year 1996 and 20.6% annualized over the last five years. The *resource* (oil and gas) pool returns are 12.4% for the year and 9.1% annualized over the last five years.

At this time, benchmarks have not been established for the private equity and resource fund managers. The long-term nature of these investments and the lack of comprehensive data on the returns provided by the resource and private equity markets preclude comprehensive performance evaluation. In the future, as markets

for these asset classes become more institutionalized, the SBI hopes to integrate appropriate performance standards for these assets into its performance analysis.

## Alternative Investments Post Fund

The Post Retirement Fund made its first commitment to alternative assets during fiscal year 1994. In comparison to the Basic Funds, the Post Fund has a somewhat shorter investment time horizon and therefore is best suited to investments that will generate a fairly high level of current income. The Board has allocated up to 5% of the Post Retirement Fund to yield-oriented alternative investments. As of June 30, 1996, the market value of the Post Fund's alternative investments was \$46 million, 0.4% of the Post Fund.

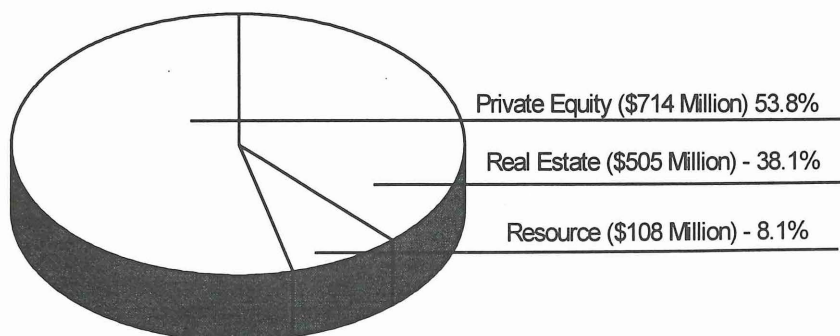
Descriptions of each of the Post Fund's alternative investments are included in the **Investment Manager Summaries** section.

*Yield-oriented investments* (e.g. business loan participations, mortgage loan participations, and income producing private placements) provide additional vehicles to obtain both higher yield and long-term capital appreciation. Typically, these investments are structured more like fixed income securities with an opportunity to participate in the appreciation of the underlying assets. While these investments may have an equity component, they display a return pattern more like a bond. As such, they will help to reduce the volatility of the total portfolio, but should also provide the opportunity to generate higher returns relative to bonds.

Note: Percentages may differ slightly due to rounding of values.

During fiscal year 1996, the Board approved three commitments for the Post Fund: Hyperion/Equitable High

Figure 22. Basic Funds' Alternative Investments as of June 30, 1996





## ***Investment Pools***

Yield Commercial Mortgage Fund, TCW/Crescent Mezzanine Partners, L.P., and Merit Energy Partners-B, L.P. While these investments cross asset class lines (the first is real estate, the second is private equity, and the third is resource), they all meet the criteria of yield oriented vehicles. The SBI will continue to review additional investments for the Post Fund in order to move closer to the 5% allocation target in future years.

## Supplemental Investment Fund

*The Supplemental Investment Fund is a multi-purpose investment program that offers a range of investment options to state and local public employees. The Fund serves more than 30,000 individuals who participate in defined contribution or supplemental retirement savings plans. On June 30, 1996, the market value of the entire fund was \$799 million.*

The different participating groups use the Supplemental Fund for a variety of purposes:

- It functions as the sole investment manager for all assets of the Unclassified Employees Retirement Plan, Public Employees Defined Contribution Plan and Hennepin County Supplemental Retirement Plan.
- It is one investment vehicle offered to public employees as part of the state's Deferred Compensation Plan, and the Individual Retirement Account Plan and College Supplemental Retirement Plan for Minnesota State Colleges and Universities.
- It serves as an external money manager for a portion of some local police and firefighter retirement plans.

### 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.

### Fund Management

The Supplemental Fund offers seven different investment options (See Figure 23). The objectives, asset allocation, management and performance of each account in the Fund are explained in the following sections.

#### 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 share value.

In the Income Share Account, the Growth Share Account, the Common Stock Index Account, the International Share 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 share values, which in turn are a function of the income and capital appreciation (or depreciation) generated by the securities in the accounts.

In the Money Market Account and the Fixed Interest Account, share values remain constant and the accrued interest income is credited to the accounts through the purchase of additional shares at predetermined intervals.

Figure 23. Accounts in the Supplemental Investment Fund

<b>Income Share</b>	a balanced portfolio of stocks and bonds
<b>Growth Share</b>	a portfolio of actively managed common stocks
<b>Common Stock Index</b>	a passively managed common stock portfolio
<b>International Share</b>	a portfolio of both actively and passively managed non U.S. stocks
<b>Bond Market</b>	an actively managed fixed income portfolio
<b>Money Market</b>	a portfolio of liquid, short-term debt securities
<b>Fixed Interest</b>	an investment option utilizing guaranteed investment contracts (GIC's)



## Supplemental Investment Fund

The investment returns shown in this report are calculated using a time-weighted rate of return formula.

*These returns are net of investment management fees and transaction costs. They do not, however, reflect any asset-based charge deducted by the retirement systems to defray their own administrative costs.*

The distribution of assets in the Supplemental Investment Fund as of June 30, 1996 is shown by Account in Figure 24 and by Plan in Figure 25.

Figure 24. Composition by Account

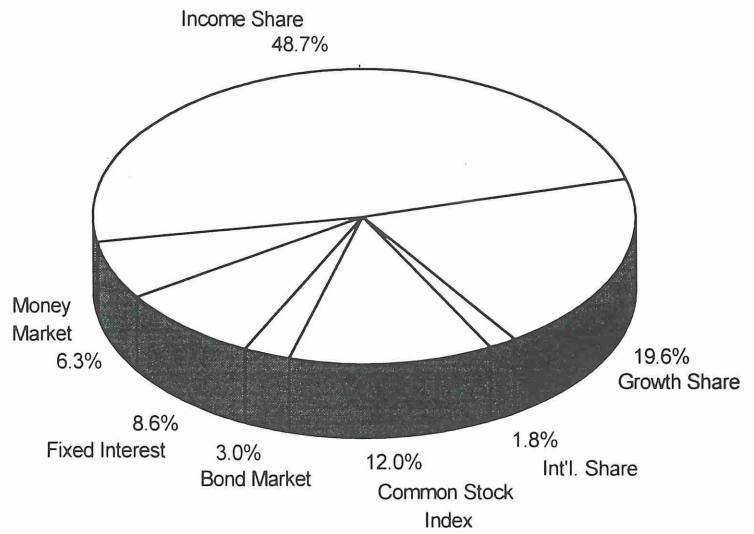
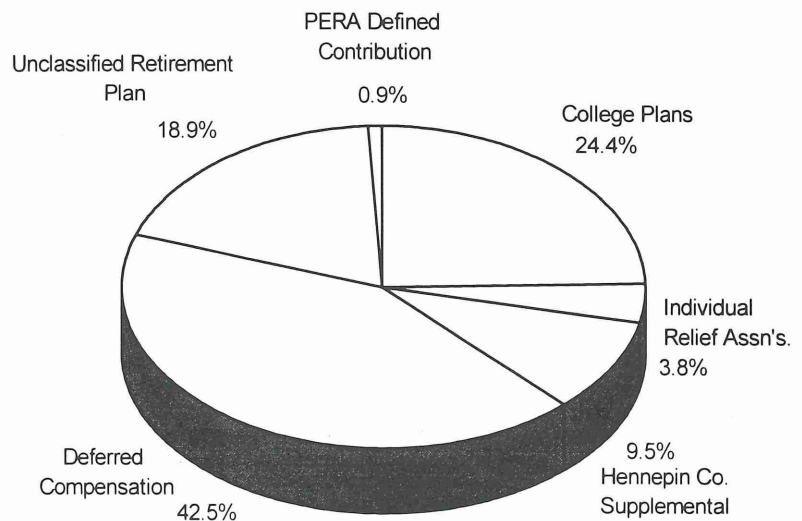


Figure 25. Participation by Plan



## Supplemental Investment Fund

### Income Share Account

#### Objective

The Income Share Account resembles the Basic and Post Retirement Funds in terms of investment objectives. The 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.

The SBI invests the Income Share Account in a balanced portfolio of common stocks and fixed income securities with the following long-term asset mix: 60% domestic 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.

At the close of fiscal year 1996, the value of the Income Share Account was \$389 million.

#### Management

The Income Share Account's investment management structure combines internal and external management. SBI staff manage the entire fixed income segment. The entire common stock segment is managed externally as part of a passively managed index fund designed to track the Wilshire 5000. Since July 1995, the manager for this portion of the Account has been Barclays Global Investors.

#### Performance

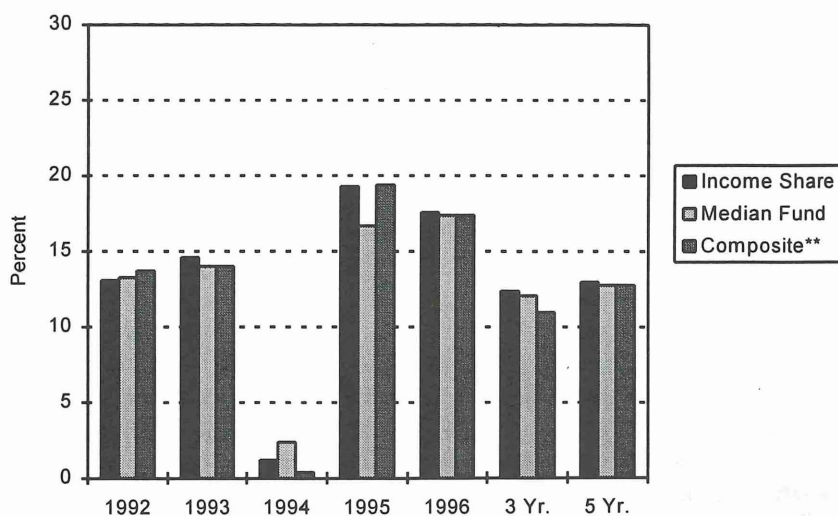
Similar to the other SBI funds which utilize a multi-manager investment structure, the Board evaluates the performance of the Income Share Account on two levels:

- **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 long term asset allocation. In addition, over time, 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 (adjusted for the SBI's liquor and tobacco restrictions through 3/31/93 and American Home Products through 10/31/93). The internal bond manager for the Account is expected to exceed the performance of the Lehman Brothers Aggregate Bond Index.

The Income Share Account provided a return of 17.6% for fiscal year 1996, outperforming the median fund and its composite index. Over the most recent five years, the Income Share Account has exceeded both its composite and the median fund. A five year history of performance results is presented in Figure 26.

Figure 26. Income Share Account FY 1992-1996



	1992	1993	1994	1995	1996	3 Yr.	5 Yr.
Income Share	13.1%	14.6%	1.2%	19.3%	17.6%	12.4%	13.0%
Median Fund*	13.2	13.9	2.5	16.7	17.4	12.1	12.8
Composite**	13.7	14.0	0.4	19.4	17.4	12.1	12.8

\* TUCS Median Master Trust

\*\* 60% Wilshire 5000 Adj./35% Lehman Brothers Aggregate Bond Index/5% T-Bill Composite. The Wilshire 5000 has been adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93. Prior to 7/1/94, the Salomon Broad Investment Grade Bond Index was used as a component of the Composite.



## Supplemental Investment Fund

### Growth Share Account

#### Objective

The Board has established above-average capital appreciation as the primary investment objective of the Growth Share Account. To achieve this objective, the Account maintains a large equity exposure with the following long-term asset allocation: 95% domestic 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.

At the close of fiscal year 1996, the value of the Growth Share Account was \$157 million.

#### Management

The SBI has assigned the entire common stock portfolio of the Growth Share Account to external active managers. The allocation to active management, rather than to an index fund, reflects the more aggressive investment policy of the Growth Share Account. Currently, these assets are managed by the same active managers utilized by the Basic and Post Retirement Funds in the Domestic Stock Pool.

#### 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 long term asset allocation. The Account's performance is also expected to surpass the performance of the median fund

from a universe of managed equity portfolios.

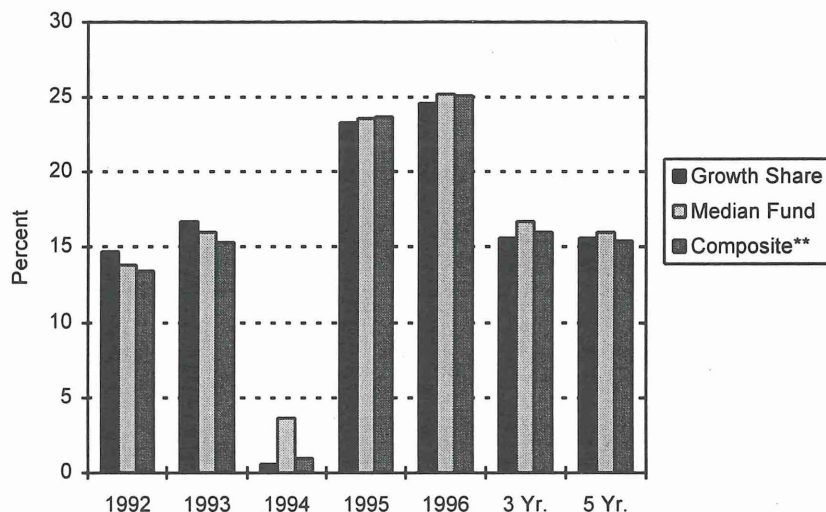
#### — Individual Manager.

Performance objectives for the individual managers are described in the **Investment Pool** section.

The Growth Share Account provided a return of 24.6% for the fiscal year, under performing both the composite index and median equity fund. Over the most recent five years, the Account has exceeded its composite index and trailed the median equity fund.

A five year history of performance results is shown in Figure 27.

Figure 27. Growth Share Account FY 1992-1996



	1992	1993	1994	1995	1996	Annualized	
Growth Share	14.7%	16.7%	0.6%	23.3%	24.6%	3 Yr.	5 Yr.
Median Pool*	14.4	16.2	2.4	23.9	25.2	16.7	16.0
Composite**	13.4	15.3	1.0	23.7	25.1	16.0	15.4

\* TUCS Median Equity Pool

\*\* 95% Wilshire 5000 Adj./5% T-Bill Composite. The Wilshire 5000 has been adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93.

## Supplemental Investment Fund

### Common Stock Index Account

#### Objective

The investment objective of the Common Stock Index Account is to generate returns that track the performance of the entire U.S. 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 domestic stocks. At the end of fiscal year 1996, it had a market value of \$96 million.

#### Management

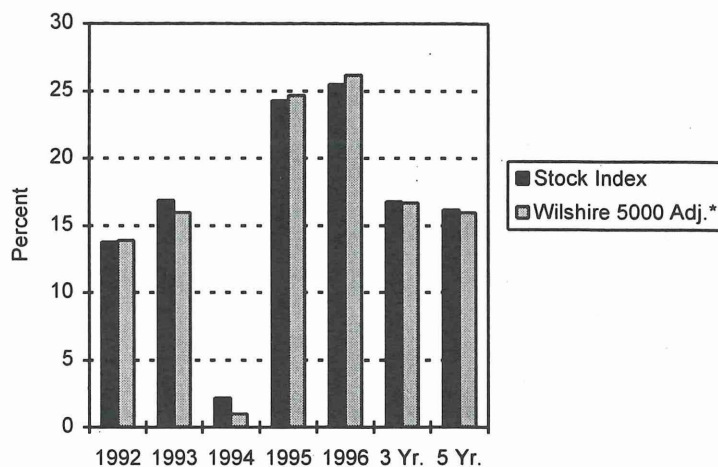
Prior to July 1, 1995, the Common Stock Index Account was managed by Wilshire Asset Management. Since July 1, 1995, the Account has been invested entirely by Barclays Global Investors.

#### Performance

The performance objective of the Common Stock Index Account is straightforward. The Account is expected to track closely the performance of the Wilshire 5000 (adjusted for the SBI's restrictions on liquor and tobacco through 3/31/93 and American Home Products through 10/31/93). The SBI recognizes that the Account's returns may deviate slightly from those of the Wilshire 5000 due to the effects of management fees, timing of new contributions and tracking error.

During fiscal year 1996, the Common Stock Index Account produced a return of 25.5%, which was 0.7 percentage point below the Wilshire 5000. Over the most recent five years, the Account has exceeded its index by 0.2 percentage point annualized. Total Account results for the last five years are shown in Figure 28.

Figure 28. Common Stock Index Account FY 1992-1996



\* Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and American Home Products restriction through 10/31/93.



## Supplemental Investment Fund

### International Share Account

The International Share Account was added to the Supplemental Investment Fund in September 1994. At the end of fiscal year 1996, it had a market value of nearly \$14 million.

#### Objective

The investment objective of the International Share Account is to earn a high rate of return by investing in the stock of companies outside the U.S.

Typically, a majority of the Account is invested in the four largest international markets (Japan, United Kingdom, Germany and France). Most of the remainder is invested in other well established markets in Canada, Europe and the Pacific region. In addition, a portion of the Account may be invested in developing countries or "emerging markets" around the world including those in Latin America, Asia and Africa.

#### Management

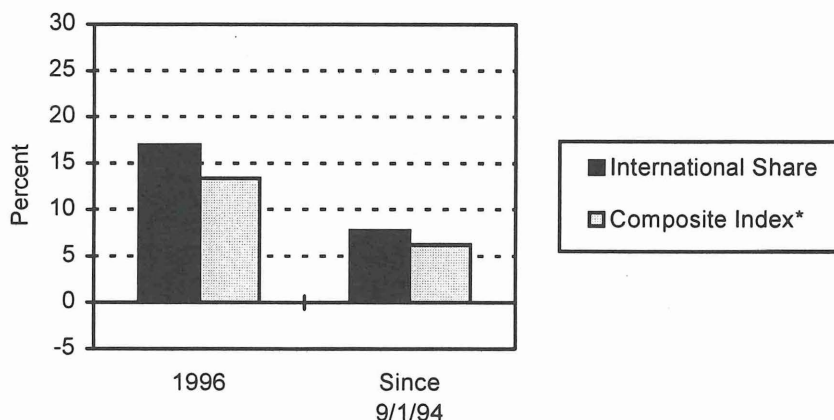
The structure of the International Share Account combines both active and passive management. Approximately one half of the Account is passively managed and is designed to consistently and inexpensively track the return of the Morgan Stanley Capital International index of Europe, Australia and the Far east (EAFE Free). The remainder of the Account is actively managed by a group of international stock managers who buy and sell stocks in an attempt to maximize market value. The Account uses the same active and passive managers utilized by the Basic and Post Retirement Funds in the International Stock Pool.

#### Performance

The International Share Account is expected to exceed the performance of a composite of international indices. During fiscal year 1996, the International Share Account produced a return of 17.0%, which was 4.4 percentage points above its composite index. Since inception of the Account in September 1994, returns exceeded the index by 1.5% annualized.

Total Account results since its inception are shown in Figure 29.

Figure 29. International Share Account Performance



	1996	Since 9/1/94
International Share	17.0%	7.7%
Composite Index*	13.4	6.2

\*EAFE Free through 4/31/96. Composite of EAFE-Free and Emerging Markets Free since 5/1/96.

## Supplemental Investment Fund

### Bond Market Account

#### Objective

The Bond Market Account is invested in investment-grade government bonds, corporate bonds and mortgage securities with intermediate to long maturities. As such, it is a more conservative investment alternative than any of the accounts described in the previous sections. At the end of fiscal year 1996, the market value of the Account was \$24 million.

The Account earns investment returns through interest income and capital appreciation. Because bond prices move inversely with interest rates, the Account entails some risk for investors. However, historically, it represents a lower risk alternative than the investment options that include common stocks.

#### Management

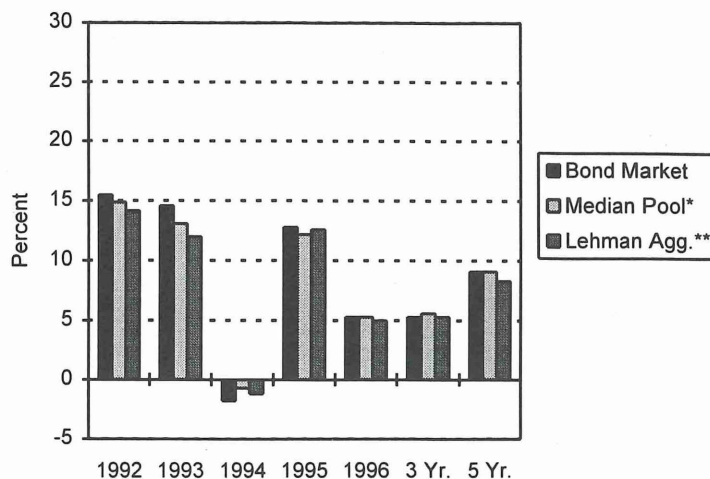
The SBI has assigned the entire bond portfolio to external active managers. These assets are managed by the same active managers utilized by the Basic and Post Retirement Funds in the Bond Pool. A discussion of the SBI's active bond managers is presented in the **Investment Pool** section of this report.

#### Performance

The Bond Market Account is expected to exceed the performance of the bond market, as represented by the Lehman Brothers Aggregate Bond Index. For fiscal year 1996 and for the most recent five years, the Bond Market Account outperformed this target and matched the return of the median bond fund.

Total Account results for the last five years are shown in Figure 30.

Figure 30. Bond Market Account FY 1992-1996



	1992	1993	1994	1995	1996	Annualized	
Bond Market	15.5%	14.6%	-1.8%	12.8%	5.3%	3 Yr.	5 Yr.
Median Pool*	15.0	13.3	-0.7	12.4	5.3	5.6	9.1
Lehman Aggregate**	14.2	12.0	-1.2	12.6	5.0	5.3	8.3

\* TUCS Median Fixed Income Pool

\*\* Lehman Brothers Aggregate Bond Index. Prior to 7/1/94 the Salomon Broad Investment Grade Bond Index was the benchmark.



## Supplemental Investment Fund

### Money Market Account

#### Objective

The Money Market Account invests solely in short-term, liquid debt securities. The Account's investment objectives are to preserve capital and offer competitive money market returns. At the end of fiscal year 1996, the Money Market Account had a market value of \$50 million.

#### Management

The Account utilizes the same cash manager as the Basic and Post Retirement Funds, which is State Street Bank & Trust Company.

#### Performance

The Account is expected to produce returns competitive with those available from short-term debt securities. The Money Market Account exceeded that target in fiscal year 1996 with a 5.8% return versus a return on 91 Day Treasury Bills of 5.4%. Total account results for prior years are shown in Figure 31.

### Fixed Interest Account

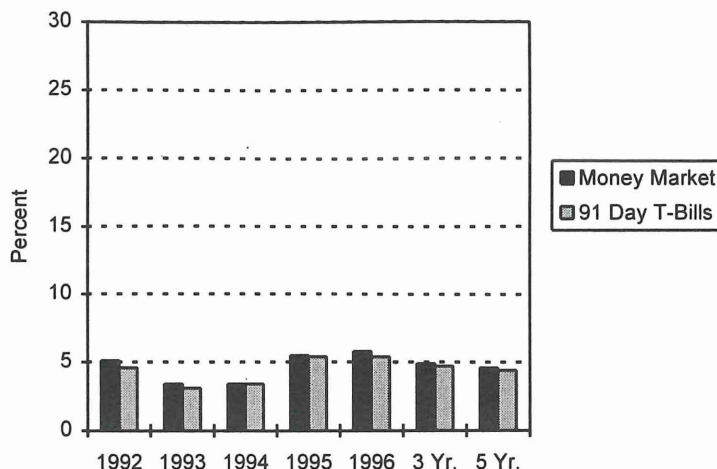
#### Objective

The investment objectives of the Fixed Interest Account are to protect investors from loss of their original investment and to provide competitive interest rates using somewhat longer term investments than typically found in a money market account. At the end of fiscal year 1996, the Account totaled \$69 million.

#### Current Structure

Contributions made on or after November 1, 1994 are invested in a pool of guaranteed investment contracts (GIC's) and GIC-type investments offered by major U.S.

Figure 31. Money Market Account FY 1992-1996



	1992	1993	1994	1995	1996	Annualized 3 Yr.	Annualized 5 Yr.
Money Market	5.1%	3.4%	3.4%	5.5%	5.8%	4.9%	4.6%
91 Day T-Bills	4.6	3.1	3.4	5.4	5.4	4.7	4.4

insurance companies and banks. The pool has a blend of maturities and a credited interest rate that changes monthly. The manager for this GIC pool since its creation has been Galliard Capital Management, a unit of Norwest Bank, N.A.

The pool provided participants with a return of 6.7% during fiscal year 1996. Since inception (1.67 years) the pool has returned 6.8% annualized.

#### Previous Structure

Prior to November 1, 1994, the SBI invested the Fixed Interest Account in separate three-year GIC's offered by major U.S. insurance companies and banks. Annually, the SBI accepted bids from banks and insurance companies that met financial quality criteria defined by State statute. Generally, the insurance company or bank who bid the highest

three-year GIC interest rate was awarded the contract for the three-year period. Participants who made contributions over the following twelve months received the fixed rate for the remainder of the three year contract period.

At the close of fiscal year 1996, one prior contract was still outstanding. The 1993-96 contract was awarded to Principal Mutual and Hartford Life at an annual effective interest rate of 4.625%.

## Assigned Risk Plan

**The Minnesota Workers Compensation Assigned Risk Plan was established in 1983 to provide workers' compensation coverage to Minnesota employers rejected by a private insurance carrier. On June 30, 1996 the market value of the Plan's portfolio was \$542 million.**

The Assigned Risk Plan operates as a non-profit, tax-exempt entity and is administered by the Department of Commerce. The Plan provides disability income, medical expenses, retraining expenses and death benefits, with payments being made either periodically or in lump sum. Investment management responsibility for the Assigned Risk Plan was transferred from the Department of Commerce to the State Board of Investment (SBI) effective May 1991.

### Investment Objectives

The SBI recognizes that the Assigned Risk Plan has limited tolerance for risk due to erratic cash flows, no allowance for surplus, and generally short duration liabilities.

The SBI has therefore established two investment objectives for the Plan:

- to minimize mismatch between assets and liabilities
- to provide sufficient liquidity (cash) for payment of on-going claims and operating expenses

Performance relative to these objectives is measured against a composite index that reflects the asset allocation of the portfolio.

### Asset Allocation

The SBI believes that due to the uncertainty of premium and liability cash flows, the Plan should be invested very conservatively.

The **bond** segment is invested to fund the shorter-term liabilities (less than 10 years) and the common stock segment invested to fund the longer-term liabilities. This creates a high fixed income allocation which minimizes the possibility of a future fund deficit. The smaller **stock** exposure provides higher expected returns and hedges some of the inflation risk associated with the liability stream.

In the future, the actual asset mix will fluctuate in response to changes in the liability stream projected by

the Plan's actuary and further analysis by the SBI staff.

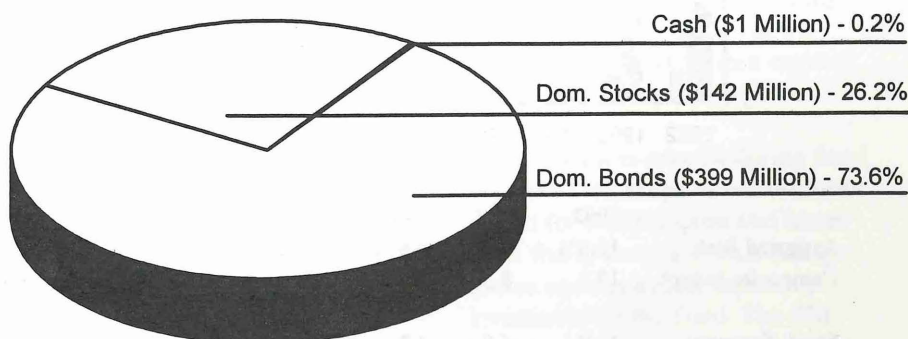
Figure 32 presents actual asset mix of the Assigned Risk Plan at the end of fiscal year 1996. The current long term asset allocation targets for the Fund are as follows:

Domestic Stocks	20%
Domestic Bonds	80

### Investment Management

Voyageur Asset Management has managed the bond segment of the Assigned Risk Plan since inception with the SBI. GE Investment Management has managed the equity segment since January 1995.

Figure 32. Asset Mix as of June 30, 1996



Note: Percentages may differ slightly due to rounding of values.



## Assigned Risk Plan

### Bond Segment

During fiscal year 1996, the Board allocated 80% of the Assigned Risk Plan to bonds to fund the shorter-term liabilities of the Plan with a target duration of 3 years. The segment is actively managed to add incremental value through sector, security and yield curve decisions.

### Stock Segment

During fiscal year 1996, the Board allocated 20% of the Assigned Risk Plan to common stocks to fund the longer-term liabilities of the Plan. Currently, the equity segment is semi-passively managed with a broadly diversified portfolio of high quality, large capitalization companies. Prior to fiscal year 1995, the stock segment was actively managed.

### Investment Performance

Due to the focus on liability matching, the composition of the Assigned Risk Plan's investment portfolio is conservatively structured. While active management is utilized, return enhancement plays a secondary role.

The Assigned Risk Plan is measured against a composite index which is weighted to reflect the asset allocation of the Plan. During fiscal year 1996:

- the target for the equity component was the S&P 500.
- the target for the fixed income component reflected the duration target established for the bond

segment (approximately 3 years) as well as the manager's suggested sector allocation.

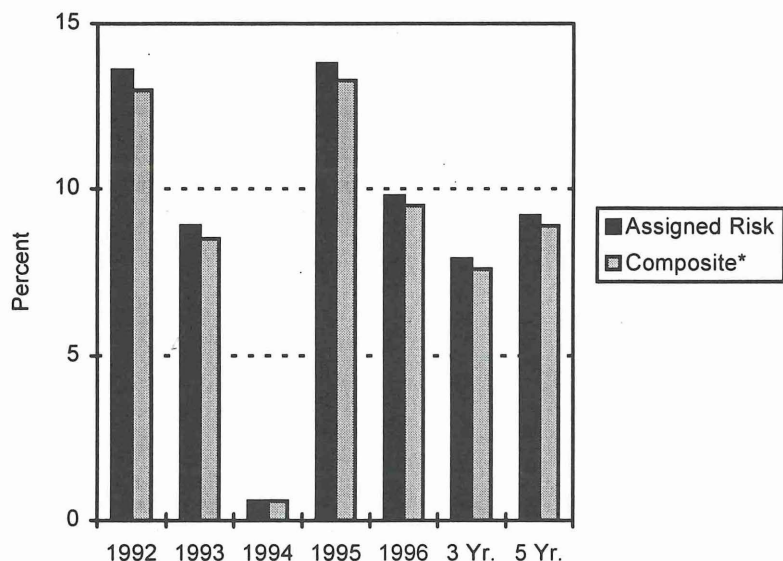
During fiscal year 1996, the **bond** segment underperformed its benchmark (5.4% ARP vs. 5.6% benchmark). The **stock** segment also underperformed its benchmark (25.2% ARP vs. 26.2% benchmark).

**Overall**, the Assigned Risk Plan provided a return of 9.8% for fiscal year 1996, outperforming its composite index by 0.3 percentage point, annualized. The stock segment was overweighted during much of the year. Due to the strong performance of stocks relative to bonds, the total fund outperformed its composite index for the period despite the underperformance of the stock and bond segments noted above.

Over the last five years, the total portfolio has outperformed its composite index by 0.3 percentage point annualized. The outperformance was attributable to the portfolio's overweighting in stocks in the last fiscal year as well as above benchmark performance in the bond segment of the portfolio during the entire period.

Historical performance results are presented in Figure 33.

Figure 33. Assigned Risk Plan Performance FY 1992-1996



	1992	1993	1994	1995	1996	Annualized 3 Yr.	Annualized 5 Yr.
Assigned Risk	13.6%	8.9%	0.6%	13.8%	9.8%	7.9%	9.2%
Composite Index*	13.0	8.5	0.6	13.3	9.5	7.6	8.9
Stock Segment	11.9	6.0	-1.2	25.9	25.2	15.9	13.1
Benchmark	13.3	5.9	0.4	26.1	26.2	16.9	13.9
Bond Segment	14.2	9.6	0.9	10.8	5.4	5.6	8.1
Benchmark	12.8	8.9	0.8	10.2	5.6	5.5	7.6

\*Weighted 20% stocks, 80% bonds since 11/93.

Weighted 15% stocks, 85% bonds prior to 11/93.

## Permanent School Trust Fund

*The Permanent School Trust 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, lake shore and other leases are invested in the Fund. Income generated by the Fund's assets is used to offset state school aid payments. On June 30, 1996 the market value of the Fund was \$419 million.*

### Investment Objective

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

### Constraints

The Fund's investment objectives are influenced by the legal provisions under which its investments must be managed. These provisions require that the Fund's principal remain inviolate. Any net realized capital gains from stock or bond investments must be added to principal.

Moreover, if the Fund realizes net capital losses, these losses must be offset against interest and dividend income before such income can be

distributed. Finally, all interest and dividend income must be distributed in the year in which it is earned.

These legal provisions limit the investment time horizon over which the Permanent School Trust Fund is managed. 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 Fund's assets to produce the maximum amount of current income, within the constraint of maintaining adequate portfolio quality.

### Asset Allocation

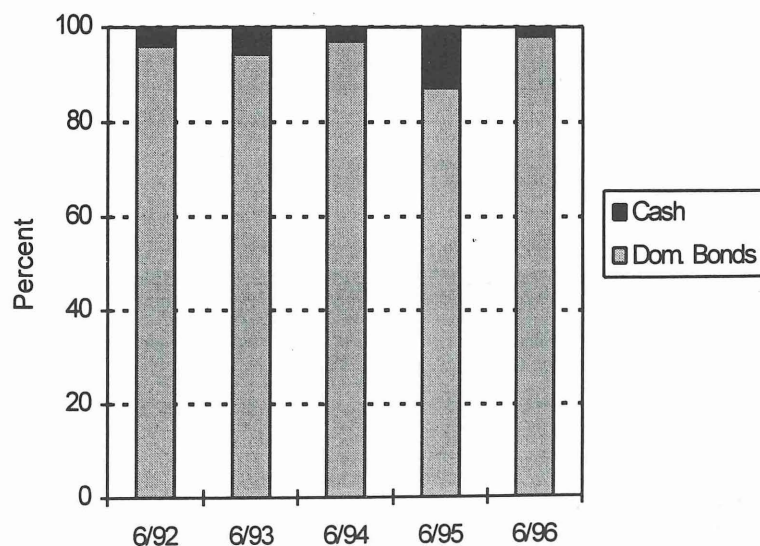
The SBI has maximized current income by investing all of the Permanent School Trust Fund's assets in fixed income securities.

The SBI has had a strong incentive not to invest in equity assets:

- 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 Trust Fund's principal. Therefore, common stock price volatility cannot be smoothed out by including past realized capital gains in spendable income.

Legislation was enacted during fiscal year 1992 to change the amortization period for realized gains and losses from five to ten years. This change makes equities a more attractive investment for the Fund. The SBI hopes to re-introduce equities to the portfolio in future years in order to grow the principal over time. However, since this change would reduce spendable income over the near term, the transition should not

Figure 34. Historical Asset Mix FY1992-1996





## Permanent School Trust Fund

occur without the knowledge and agreement of the Legislature.

During the 1995 Legislative Session, "rider" language was added to legislation which will allow equities to be introduced into the Fund when income levels reach a predetermined level. Due to declining bond yields during fiscal year 1996, the income target was not reached. Therefore, the fund remained invested in fixed income securities throughout the year.

Historical asset mix data for the Fund are shown in Figure 34.

### Investment Management

SBI staff manage all assets of the Permanent School Fund. Given the unique constraints of the Fund, management by SBI staff is considered to be the most cost effective at this time.

Prior to fiscal year 1994, staff used a "buy-and-hold" laddered maturity approach to manage the portfolio. As such, the portfolio was dominated by long duration Treasury issues to minimize reinvestment risk and reduce the chance of realizing any losses which would negatively impact spendable income.

Due to the statutory changes regarding amortization of gains and losses, staff moved the portfolio to a more traditional active bond management approach during fiscal year 1994. This approach includes more corporate and mortgage securities as well as a shorter overall duration but should maintain or increase the yield for the Fund. At the same time, the structural change is compatible with the long range goal of reintroducing equities into the total portfolio.

### Investment Performance

Corresponding to the change in investment management structure, the Permanent School Fund may now appropriately be measured against market indices which reflect total rates of return.

For fiscal year 1996, the Fund produced a total rate of return of 5.1% which was slightly higher than the return provided by the Lehman Aggregate Bond Index. On June 30, 1996, the Fund's bond portfolio had a duration (a measure of average life) of 4.8 years which was 0.1 year longer than the duration of the Lehman Aggregate.

Duration	4.8 years
Current Yield	7.1%
Average Quality	AAA

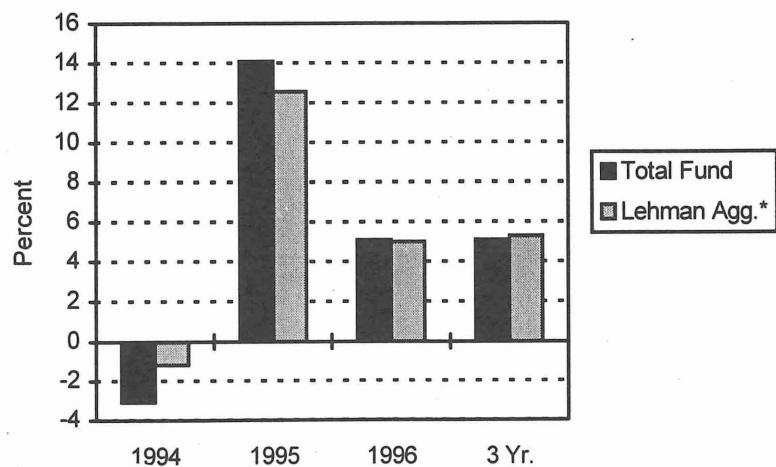
### Spendable Income

Spendable income generated by the portfolio over the last five fiscal years is shown below:

Fiscal Year	Millions
1992	\$35
1993	\$34
1994	\$33
1995	\$31
1996	\$30

While total rate of return was not an appropriate measure of the buy-and-hold strategy prior to fiscal year 1994, the total return for the Fund for the most recent five year period was calculated at 10.3% annualized. On June 30, 1996, the Fund had the following characteristics:

Figure 35. Permanent School Performance FY1994-1996



	1994	1995	1996	Annualized 3 Yr.
Total Fund	-3.1%	14.1%	5.1%	5.1%
Lehman Agg.*	-1.2	12.6	5.0	5.3

\* Lehman Brothers Aggregate Bond Index. Prior to 7/1/94, the Salomon Broad Investment Grade Bond Index was used.

## Environmental Trust Fund

**The Environmental Trust Fund was established in 1988 by the Minnesota Legislature to provide a long-term, consistent and stable source of funding for activities that protect and enhance the environment. On June 30, 1996 the market value of the Fund was \$140 million.**

In 1990, a constitutional amendment was approved which mandates that 40 percent of the net proceeds from the state lottery be credited to the Fund until the year 2001. The Legislature may fund projects from a portion of revenue deposited in the Fund through 1997 and, thereafter, from earnings on the principal of the Fund. By statute, the State Board of Investment (SBI) invests the assets of the Environmental Trust Fund.

### Investment Objective

The Environmental Trust Fund's investment objective is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity.

### Investment Constraints

The Fund's investment objectives are influenced by the legal provisions under which its investments must be managed. As with the Permanent School Fund, these provisions require that the Fund's principal remain inviolate. Any net realized capital gains from stock or bond investments must be added to principal. Moreover, if the Fund realizes net capital losses, these losses must be offset against interest and dividend income before such income can be distributed. Finally, all interest and dividend income must be distributed in the year in which it is earned.

### Asset Allocation

By 1993, the Fund had received sufficient contributions to warrant an investment policy that incorporated allocations to longer-term assets such as stocks and bonds. SBI staff worked with the Legislative Commission on Minnesota Resources to establish an asset allocation policy that is consistent with the Commission's goals for spendable income and growth of the Fund.

Over the long-term, the principal of the Fund will be invested in a balanced portfolio of 50% common stocks and 50% bonds. The Commission endorsed this approach in a resolution passed on February 6, 1992. However, prior to this resolution, the Legislature enacted spending plans for fiscal year 1993

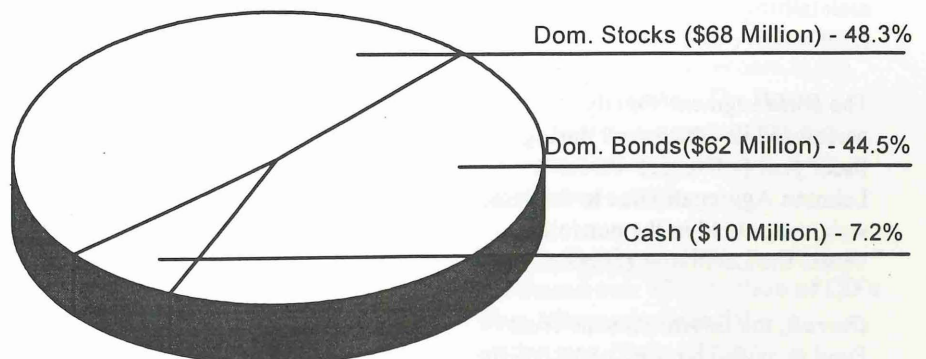
that required a higher level of income than could be generated by a balanced portfolio of stocks and bonds. As a result, the Commission agreed with the SBI staff's recommendation to invest the portfolio entirely in fixed income securities until the end of fiscal year 1993.

During fiscal year 1994, the SBI introduced equities into the portfolio and moved to the targeted 50% allocation to domestic common stocks.

Figure 36 presents actual asset mix of the Environmental Trust Fund at the end of fiscal year 1996. The current long term asset allocation targets for the Fund are:

Domestic Stocks	50%
Domestic Bonds	48
Cash	2

Figure 36. Asset Mix as of June 30, 1996



Note: Percentages may differ slightly due to rounding of values.



## Environmental Trust Fund

### Investment Management

SBI staff manage all assets of the Environmental Trust Fund (ETF). Given the unique constraints of the Fund, along with its relatively small size, management by SBI staff is considered to be the most cost effective at this time.

### Stock Segment

The *stock* segment of the Fund is passively managed to track the performance of the S&P 500.

### Bond Segment

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions and its performance is measured against the Lehman Brothers Aggregate Bond Index.

### Investment Performance

The *stock* segment accomplished its objective of closely tracking the return of the S&P500 benchmark (26.0% ETF vs. 26.2% Benchmark). By investing in most of the stocks in the benchmark at their index weighting, the segment was able to track the benchmark return on a monthly and annual basis. The segment was periodically rebalanced using an optimization model to minimize trading costs while still maintaining an acceptable tracking error relative to the benchmark.

The *bond* segment slightly under performed its benchmark during the fiscal year (4.8% ETF vs. 5.0% Lehman Aggregate) due to the sector weightings held in the portfolio versus the Lehman Aggregate.

**Overall**, the Environmental Trust Fund provided a return of 14.6% for fiscal year 1996, under performing its composite index by 0.6 percentage point. Stock and bond performance accounted for only a small portion of the under

performance. The fund experienced a more significant drag on returns due to the accumulation of spendable income within the Fund. The lower return on these cash equivalents reduced total fund performance relative to the composite index for the year.

The same circumstance reduced total fund returns in fiscal year 1995 relative to the composite and accounts for the lag in the three year annualized return. In the future, spendable income will be transferred out of the portfolio on a periodic basis.

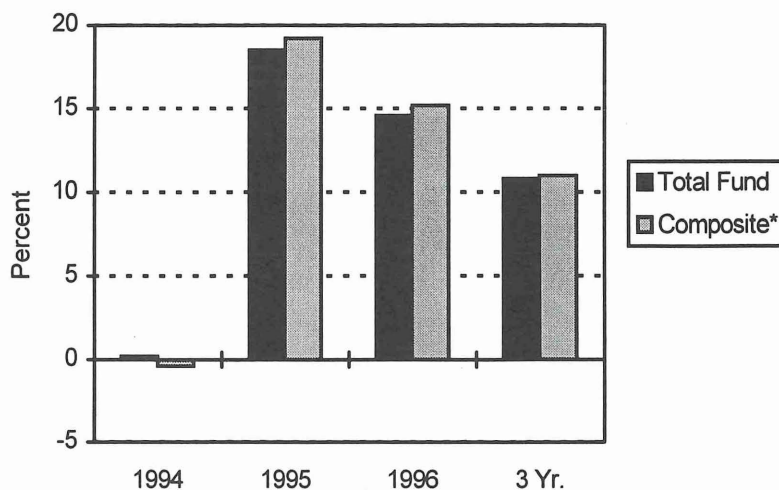
Performance results are presented in Figure 37.

### Spendable Income

Spendable income generated by the Fund is shown below:

Fiscal Year	Millions
1994	\$3.9
1995	\$5.2
1996	\$6.0

Figure 37. Environmental Trust Fund Performance



	1994	1995	1996	Annualized 3 Yr.
<b>Total Fund</b>	<b>0.2%</b>	<b>18.5%</b>	<b>14.6%</b>	<b>10.8%</b>
<b>Composite*</b>	<b>-0.4</b>	<b>19.2</b>	<b>15.2</b>	<b>11.0</b>
<b>Stock Segment</b>	<b>1.5</b>	<b>26.0</b>	<b>26.0</b>	<b>17.2</b>
<b>S&amp;P500</b>	<b>1.5</b>	<b>26.1</b>	<b>26.2</b>	<b>17.3</b>
<b>Bond Segment</b>	<b>0.4</b>	<b>12.7</b>	<b>4.8</b>	<b>5.8</b>
<b>Lehman Aggregate</b>	<b>-1.2</b>	<b>12.6</b>	<b>5.0</b>	<b>5.3</b>

\* Weighted 50% S&P500, 48% Lehman Aggregate, 2% 91 Day T-Bills.

## Cash Management & Related Programs

**The State Board of Investment (SBI) manages the cash balances in more than 400 state agency accounts with the objectives of preserving capital and providing competitive money market returns. On June 30, 1996, the total value of these accounts was \$4.5 billion.**

### Internal Cash Pools

The SBI invests these cash accounts in short-term, liquid, high quality debt securities on a non-leveraged basis. These investments include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, and commercial paper. On June 30, 1996 the combined value of all agency cash balances was \$4.5 billion.

#### Pool Structure

Most of the cash accounts are managed by SBI staff through two pooled investment vehicles, which operate much like money market mutual funds:

- **Trust Fund Pool.** This pool contains cash balances of trust fund retirement-related accounts that are managed internally. The Trust Fund Pool had an average daily balance of \$140 million during the year.
- **Treasurer's Cash Pool.** This pool contains cash balances from the Invested Treasurer's Cash and other accounts necessary for the operation of state agencies. The Treasurer's Cash Pool had an average daily balance of \$2.9 billion during the year.

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

### Performance

For fiscal year 1996, both the Trust Fund Pool and the Treasurer's Cash Pool outperformed the total return on 91 Day Treasury Bills.

<b>Trust Fund Pool</b>	<b>5.9%</b>
91 Day Treasury Bills	5.4
<b>Treasurer's Cash Pool</b>	<b>5.7</b>
Benchmark	5.8
91 Day Treasury Bills	5.4

The SBI also measures the performance of the Treasurer's Cash Pool against a customized benchmark which reflects the maturity structure of the pool. For the benchmark, 75% of the return is tied to the SBI's custodian bank's Short Term Investment Fund and 25% is tied to the return of the Merrill Lynch 1 to 3 year bond index.

### Securities Lending Program

The SBI participates in securities lending programs in which securities held by the SBI are loaned to banks and security dealers for a daily fee. These loans are fully collateralized. Currently, the majority of the SBI's securities lending activity is undertaken by the SBI's master custodian bank, State Street Bank and Trust. Securities lending generated additional income of approximately \$6.2 million during fiscal year 1996 for all portfolios controlled by the SBI.

### Certificate of Deposit Program

The SBI also manages a certificate of deposit (CD) program in which it purchases CD's from Minnesota financial 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 the retirement funds are used in the program. The Federal Deposit Insurance Corporation (FDIC) provides \$100,000 in insurance coverage for each retirement plan in the Basic Funds in each of the financial institutions participating in the program. Therefore, the maximum CD investment in any financial institution is \$750,000. Within these limits, all CD's purchased by the SBI are fully insured by the FDIC.

The SBI's Certificate of Deposit program provides a reliable source of capital to Minnesota financial institutions, regardless of size, many of which do not have access to the national CD market. The Board designed the program so that no single institution is favored in the allocation of assets.

During fiscal year 1996, the SBI purchased over \$229 million of CD's from Minnesota financial institutions. Since it began the program in 1980, the SBI has purchased over \$2.2 billion of CD's from approximately 500 financial institutions throughout the state.



## Major Policy Initiatives

### Legislative Update Police and Fire Fund Activity

#### Legislation

The State Board of Investment (SBI) did not initiate any legislative proposals for the 1996 Legislative Session. The Legislature did, however, enact several measures that impact SBI operations.

The Omnibus Pension Bill was enacted as *Laws of Minnesota 1996*, Chapter 438. It contains the following provisions of interest to the SBI:

— The SBI will invest the assets of the ambulance service personnel longevity award program. This program is funded by state general fund appropriations and will be administered by the newly created emergency medical services regulatory board. Since the award program is not considered a qualified retirement plan under Internal Revenue Service regulations, the assets will be invested in non-retirement asset pools managed by the SBI staff.

— The Defined Contribution Plan of the Public Employees Retirement Association was expanded to include physicians employed by local units of government. These new members will use the Supplemental Investment Fund as their investment vehicle along with other participants in the same plan.

— The law authorizes the Historical Society to offer a defined contribution plan to its employees under the Minnesota State Colleges and Universities (MnSCU) Retirement Plan. The Historical Society may choose up to two of the MnSCU product providers for their employees. The law also provides that the SBI must approve any contracts and conduct periodic reviews of the vendor(s) selected by the Historical Society.

— The law creates a special task force to review investment attribution reporting by pension funds sponsored by state and local units of government. The task force includes the SBI Executive director (or designee) along with seven representatives of local police and fire plans, four legislative representatives, one representative of a local unit of government, the State Auditor or designee, and one representative of the first class city teacher plans.

#### Police and Fire Fund Activity

In 1987, legislation was enacted that establishes procedures for voluntary consolidation of local police and firefighter plans with the Public Employees Retirement Association (PERA). When a merger is approved, assets are transferred from the local

plan to the State Board of Investment (SBI).

By statute, the Executive Director of the SBI has authority to accept assets in-kind or to require that individual holdings be converted to cash prior to the transfer. Since the investments made by local plans are similar to those made by the SBI, most assets can be transferred at their stated market value.

Two plans consolidated during fiscal year 1996 with assets of \$8 million. Since 1987, 37 plans with total assets of \$546 million have merged with PERA. After consolidation, these assets are managed as part of the Basic and Post Retirement Funds.

Police and fire plans that are not consolidated with PERA may invest their assets with the SBI through the Supplemental Investment Fund.

During fiscal year 1996, 14 additional plans selected the SBI to manage all or a portion of their retirement related assets. This brought the total number of police and fire plans participating in the Supplemental Investment Fund to 103 by the end of the fiscal year.

The SBI expects this growth trend to continue as plans become more familiar with the SBI and its ability to offer a variety of investment options at a low administrative cost.

## Major Policy Initiatives

### Asset Allocation Review

The State Board of Investment (SBI) determines overall strategy for each fund through its long term asset allocation policy. This decision is the single largest determinant of a fund's return and overwhelms all other policy and implementation decisions. It also reflects the Board's tolerance for volatility/risk. The last major changes were made in 1992 and 1993 when international stocks were introduced in the Basic and Post Funds.

During the FY96 review, staff proposed incremental changes that would enhance the funds' long term risk/return profile:

- increase the allocation to international stocks from 10% to 15% of each fund.
- expand exposure to emerging markets within the international stock program (up to 15% of the international stock segment or up to 2% of the total fund)
- increase the use of non dollar bonds on a tactical basis (up to 20% of the bond segment or up to 5% of the total fund)

The Asset Allocation Committee met in August 1995 to review the above proposals and the accompanying background research. They endorsed the proposals as presented and further recommended that the SBI modify how it treats uninvested allocations to alternative investments:

- Since alternative assets in the *Basics* are focused on equity-oriented vehicles, the Committee recommended that assets not yet

invested should be held in *domestic equities*. (Previously, these assets were held in bonds.)

- Since alternative assets in the *Post* are focused on yield oriented vehicles, the Committee recommended that assets not yet invested should be held in *bonds*. (This is the same as previous policy.)

After discussion at the full Investment Advisory Council (IAC), the Council endorsed all of the above proposals. The Board approved the modifications at its meeting in October 1995.

Figure 38 compares the previous targets with the new policy approved by the Board. The increase to international stocks was funded gradually over the remainder of fiscal year 1996 by reducing allocations to domestic stocks and to bonds. By the close of the fiscal year, the international segment was 14.4% of the Combined Funds.

Figure 38. Long Term Asset Allocation Targets

	Basics Previous	Basics Revised	Post Previous	Post Revised
<b>Equities</b>	<b>60%</b>	<b>60%</b>	<b>60%</b>	<b>65%</b>
Domestic	50	45	50	50
International	10	13	10	13
Emerging Mkts.*	--	2	--	2
<b>Alternative Assets**</b>	<b>15%</b>	<b>15%</b>	<b>5%</b>	<b>5%</b>
Private Equity	7.5	9	--	--
Real Assets	7.5	6	--	--
Yield Oriented	--	--	5	5
<b>Fixed Income</b>	<b>25%</b>	<b>25%</b>	<b>35%</b>	<b>30%</b>
Domestic Bonds	24	19	32	22
Non Dollar Bonds***	--	5	--	5
Cash Equivalents	1	1	3	3

\*Up to 15% of the entire international segment.

\*\*Market value. Market value plus unfunded commitments may be up to 5 percentage points higher.

\*\*\*To be used tactically, up to 20% of the entire bond pool.



## Major Policy Initiatives

### Emerging Markets

In October 1995, the State Board of Investment (SBI) increased its long term allocation to international equities from 10% to 15% of the Combined Retirement Funds. As part of this increase, the Board approved an allocation of up to 2% of the total portfolio to the stock of emerging markets. At this level, emerging market equities would represent approximately 13-15% of the SBI's international stock pool.

During fiscal year 1996, staff worked with the International Manager Committee to finalize an implementation plan for the new allocation and to identify emerging markets specialists that could be considered as potential managers.

#### Investment Rationale

There is no uniform definition of what constitutes an "emerging market." Typically, economies are considered emerging markets if they have the following attributes: relatively rapid economic growth; an immature public equities market; a government which promotes growth through the private sector; and a trend toward stable economic, financial and political institutions.

By the end of 1994, emerging markets comprised almost 13% of world stock market capitalization. According to the International Monetary Fund, annual economic growth in these countries is projected to be 5-6%. This is approximately double the projected annual growth for developed markets.

While emerging markets exhibit a high degree of volatility on a year-to-year basis, they have provided superior returns over longer time periods. In addition, their low correlations with the returns of

developed markets provide diversification benefits to the total portfolio.

#### Implementation

Staff prepared a position paper which discussed the rationale for an allocation to emerging markets. It also described the opportunities and limitations of emerging markets investing and recommended a management structure for the SBI's investments in these markets. Key elements of the recommended structure are outlined below:

- **Definition.** The SBI should define emerging markets as all non-EAFE, non-North American markets that have a functional stock exchange which is open to foreign investors and a convertible currency or capital-plus-repatriation plan. While it is currently part of EAFE, staff also recommended that Malaysia be considered an emerging market since it more typical of an emerging market than a developed market.
- **Benchmark.** The SBI should use the Morgan Stanley Capital Emerging Markets Free (EMF) as its performance standard for emerging markets. Once the emerging markets allocation is fully implemented, a composite index should be used for the international pool which is weighted 85% EAFE and 15% EMF. This weighting reflects the SBI's long term asset allocation targets for the international segment of the Combined Funds.
- **Impact on Existing Managers.** In order to avoid an unintended overweighting to emerging

markets, the SBI's existing active international managers should limit their exposure to emerging markets to no more than 15% of their individual portfolios. A manager's exposure to Malaysia should be included in this limit.

- **Management Structure.** Since passive investing is not widely used among institutional investors, the SBI should focus on active management approaches at the present time. Manager selection should focus on a firm's quality and depth of resources, stability of its management team, the firm's attention to trading costs, size of assets under management as well as length of track record.

In December 1995, the IAC recommended six firms as finalists for the emerging markets manager search. The Search Committee subsequently recommended that the SBI retain three firms: City of London, Genesis Asset Managers and Montgomery Asset Management.

This recommendation, along with a position paper on emerging markets investing, was endorsed by the IAC and adopted by the Board in March 1996. Funding for the managers began in May 1996 and will continue in fiscal year 1997.

## Major Policy Initiatives

### Currency Management

The State Board of Investment (SBI) began investing internationally in October 1992. At that time, the Board adopted an unhedged benchmark as its asset class target for the international stock program. The passive component was left unhedged and the active managers were allowed to hedge opportunistically as part of their investment strategy.

When this program structure was initiated, staff advised the Board that the issue of currency management warranted further study. During fiscal year 1995, staff intensified its research on currency issues. Recommendations were finalized in early fiscal year 1996 when the Board approved a staff position paper on currency management and retained a currency overlay manager to address currency exposure in the passive component of the international stock program.

#### Background

Generally, securities are denominated in the currency of the country where they are issued. As a result, US investors incur foreign currency exposure at the same time they add international securities to their portfolios. The exchange rate in effect at the time of purchase affects the investor's initial cost in dollar terms. During the holding period, the exchange rate will move up or down from the rate in effect at the time of purchase. When those changes are translated back into dollars, the portfolio will register gains or losses due to the fluctuation in exchange rates during the holding period. Currency impact can be positive or negative and can vary widely from year to year.

The currency exposure of an international portfolio can be altered by hedging, or selling an amount of foreign currency equal to the value of the underlying foreign securities. If a portfolio of international stocks were fully hedged, exchange rate fluctuations would have no impact on returns measured in US dollar terms.

#### Policy Decisions

Staff suggested that the SBI make two distinct decisions with respect to currency management:

- **Constant Hedging.** Should the SBI hedge currency exposure at all times? This is a decision that affects the risk profile of the total fund. Therefore, staff recommended that this decision should be made within the context of the SBI's long term asset allocation policy.
- **Tactical Hedging.** Should the SBI attempt to move in and out of foreign currency exposure at particular points in time? This is a tactical decision that is similar to the decision to use or not use active management. Therefore, the decision should be made based on a belief that tactical hedging provides an opportunity to add value to the policy benchmark.

#### Constant Hedging

Constant currency hedging can insulate international portfolios from the effect of currency fluctuations and thereby reduce the risk, or volatility, of returns associated with currency exposure. Research suggests that constant hedging does

not generate significant risk reduction benefits for the total fund if the international allocation is less than 20%. Consequently, staff recommended that the SBI reject constant hedging at the present time. If the SBI's international allocation exceeds 20% at some point in the future, staff suggested that this recommendation should be reconsidered.

The Investment Advisory Council (IAC) endorsed this conclusion and agreed with staff's recommendation that the SBI's asset class target for the international program should remain unhedged at the present time.

#### Tactical Hedging

The goal of tactical hedging is to add value by increasing and decreasing exposure to particular currencies as they strengthen or weaken relative to other currencies. Tactical hedging adds value by hedging during periods of dollar strength/appreciation and not hedging during periods of dollar weakness/depreciation.

Generally, the SBI's active international stock managers take a fundamental approach to currency management and their currency views are embedded in their country and stock selection decisions. They may also make an explicit decision to increase/decrease exposure to a particular currency through hedging activity. Since currency exposure is already being addressed by the active managers, staff recommended that no further action be taken in this portion of the program.

As noted earlier, the currency exposure of the EAFE index fund has been totally unmanaged. Given the



## Major Policy Initiatives

large impact that currency can have on returns, staff recommended that the SBI consider a currency overlay program for this portion of the international program.

Staff also recommended that the SBI limit the program to currencies that comprise 5% or more of the exposure of the EAFE index. This includes Japanese Yen, British Pound Sterling, German Mark, French Franc and Swiss Franc. Together, these five currencies comprise over 75% of the EAFE index.

### Currency Overlay

Currency overlay styles generally fall into two groups: a *forecasting approach* which attempts to anticipate the direction and level of exchange rates or a *systematic approach* which moves in and out of currencies in reaction to short term currency trends or fluctuations. Staff recommended that the SBI select a manager who utilizes a systematic approach to currency management since it would provide a more predictable pattern of returns.

During the last half of fiscal year 1995 and the first portion of fiscal year 1996, staff worked with the International Manager Committee of the IAC to explore a variety of currency management approaches. As part of its research, the Committee focused on firms who employ systematic strategies that provide an option-like pay-off profile (i.e., protection against loss and participation in gains due to currency movements). The firms were asked to simulate their pattern of returns under alternative scenarios (dollar strength, dollar weakness, dollar flat/choppy) and to identify the costs associated with their management processes. In addition, the Committee considered placing a passive hedge on the portfolio for an unspecified period of time.

During discussion at both the Committee and full IAC levels, it was apparent that IAC members differ in how tactical they believe the SBI should be concerning currency management and had varying opinions on what form of management is likely to yield the best results for the SBI. However, after extensive review and debate, a majority of the IAC recommended that the SBI employ a systematic approach to currency management in the passive component of the international program. They also recommended that *Record Treasury Management* be retained to implement a form of dynamic hedging which is designed to protect the portfolio from the negative effects of foreign currency depreciation versus the US dollar. These recommendations were discussed and adopted by the Board at its meeting in October 1995.

Record Treasury began the overlay program in December 1995. Since the program is being phased-in over a twelve month period, full coverage will not be in place until the middle of fiscal year 1997.

From December 1995 through June 1996, the overlay program provided 0.2 percentage point value added to the passive component of the international pool. The EAFE index fund provided a return of 9.3% for the seven month period. With the addition of the currency overlay program, the return was 9.5%.

## Major Policy Initiatives

### Guidelines on International Investing

As noted in prior sections of this report, the State Board of Investment (SBI) made its first international stock investments in 1992. The case for international investing lies in three areas: increased investment opportunity, greater diversification and potential for higher return. Nearly two-thirds of the world's markets now lie outside the U.S.

Japan, U.K., Germany and France comprise about three quarters of the value of the international markets. Sixteen (16) other countries in Europe and the Pacific Basin make up the remainder of the more well established stock markets. Emerging markets in Central and South America, Eastern Europe, Africa and Asia are growing rapidly and pose special investment considerations and limitations.

#### Task Force

The Board has established an International Investing Guidelines Task Force to recommend guidelines that address these limitations as well as other concerns related to international investing.

The membership of the Task Force includes a representative of each Board member, a representative of each statewide retirement system, two private sector representatives from the Investment Advisory Council, two representatives from organized labor and one representative from environmental groups. The SBI executive director and the SBI's international consultant are also members of the Task Force.

#### Guidelines

Based on information compiled from U.S. State Department reports, the Task Force grouped countries into three broad categories. *It is important to note that the guidelines listed below do not prohibit an active stock manager from purchasing the stock of any country.* Rather, in certain instances they require additional notification or presentation by the manager regarding the firm's investment strategy.

**Group I.** These countries have legal structures that generally respect worker and human rights. Because these countries have strong worker and human rights protections, there is little concern that economic and social disruptions may occur which would have an adverse effect on financial markets. As a result, active stock managers should be authorized to invest in companies domiciled in these countries without additional notification to the SBI.

**Group II.** These countries have legal protections for worker and human rights but violations of these rights have been cited in the State Department reports. Because violations of legally protected worker and human rights continue to occur in these countries, there is some concern that economic and social disruptions may occur which may have an adverse effect on their financial markets. An active stock manager may invest in companies domiciled in the countries shown under "Group II" if the manager believes that it would be a breach of fiduciary responsibility not to do so. If a manager chooses to invest in one or more of these markets, the

manager must notify the SBI in writing.

**Group III.** These countries lack basic protections for worker and human rights and do not appear to be making adequate progress in establishing an appropriate legal structure to address these issues. Because of this basic lack of human and worker rights, the potential exists for economic, political and social unrest that could adversely affect the stability of the financial markets within these countries. An active stock manager may invest in companies domiciled in countries shown under "Group III" if the manager believes that it would be a breach of fiduciary responsibility not to do so. If a manager chooses to invest in one or more of these markets, the manager must appear at the SBI to present its reasons for the decision to do so.

#### Review Process

When the Task Force made its original report to the Board in December 1992, the Task Force assumed that the country groupings would be updated periodically to reflect changes in the world markets. At its meeting in June 1994, the Board adopted the following review process regarding guidelines:

- Staff will review reports from the US State Department regarding worker and human rights issues and designate countries "Group I, II or III" using the existing policy guidelines recommended by the Task Force and adopted by the Board.



## Major Policy Initiatives

- Staff designations will be reviewed with the SBI Administrative Committee. This includes any movement of countries between categories as well as categorizations of any new countries that need to be added to the list of available markets.
- A manager who elects to purchase stocks of companies domiciled in Group III countries will appear before the SBI Administrative Committee to discuss their investment decision.

### FY 1996 Changes

During fiscal year 1996, SBI staff reviewed country designations based on the most recent information published by the U.S. State Department and input from the newly retained emerging markets specialists. The SBI Administrative Committee adopted the expanded country groupings as presented in Figure 39 at its June 1996 meeting and they became effective at that time. This information was reported to the Board at its September 1996 meeting.

*Figure 39. International Investing Guidelines  
Expanded Country Groupings as of June 1996*

Group I	Group II	Group III
Australia	Argentina	China, Peoples Republic of
Austria	Bangladesh	Croatia
Barbados	Bolivia	Indonesia
Belgium	Botswana	Jordan
Canada	Brazil	Kuwait
Costa Rica	Chile	Lebanon
Czech Republic	Cote d'Ivoire	Morocco
Denmark	Columbia	Myanmar (Burma)
Finland	Ecuador	Nigeria
France	Egypt	Peru
Germany	Estonia	Pakistan
Greece	Ghana	Swaziland
Hong Kong	India	United Arab Emirates
Hungary	Israel	Vietnam
Italy	Jamaica	
Ireland	Kazakhstan	
Japan	Kenya	
Luxembourg	Korea, Republic of	
Netherlands	Latvia	
New Zealand	Lithuania	
Norway	Malawi	
Poland	Malaysia	
Portugal	Mauritius	
Singapore	Mexico	
Slovak Republic	Mongolia	
Slovenia	Namibia	
Spain	Nepal	
Sweden	Panama	
Switzerland	Papua New Guinea	
United Kingdom	Philippines	
Uruguay	Romania	
	Russia	
	South Africa	
	Sri Lanka	
	Taiwan	
	Thailand	
	Trinidad & Tobago	
	Tunisia	
	Turkey	
	Venezuela	
	Ukraine	
	Zambia	
	Zimbabwe	

## **Major Policy Initiatives**

### **Securities Repurchase Program**

Since 1980, the SBI has invested in banks throughout Minnesota through the SBI's Certificate of Deposit (CD) program. In recent years, community banks throughout Minnesota have experienced an increased need for funds due to a reduction in local deposits and a reduced ability to sell investments held in bank portfolios due to changes in federal accounting requirements. The SBI created the Securities Repurchase Program to help meet the increased needs of banks throughout the state.

#### **Structure**

Under the new program, the SBI temporarily buys securities such as Treasuries and Governments from banks under a repurchase agreement. At the end of the agreement period, the securities are returned to the selling banks (i.e. "repurchased") and the bank pays the SBI principal and interest.

The transactions are fully collateralized and range in size from \$100,000 to \$2 million per institution. Amounts above \$500,000 are based on availability of funds and other factors such as a bank's preferred lending ranking by the Small Business Administration (SBA).

For ease of administration, the program uses the same rates, offering dates and maturity dates as the SBI's CD program. (See page 39 for a description of the CD program.)

#### **Implementation**

With the support of both the Minnesota Department of Commerce and the SBA, a proposal for a pilot program was approved by the Board at its meeting in December 1995. The initial offering was made in April 1996 with 10 banks participating in the placement of \$6.5 million.



## Major Policy Initiatives

### Mandate on Northern Ireland

#### Requirements

In 1988, the Legislature enacted statutory provisions concerning the Board's investments in U.S. companies with operations in Northern Ireland. The statute requires the State Board of Investment (SBI) to:

- Annually compile a list of U.S. corporations with operations in Northern Ireland in which the SBI invests.
- Annually determine whether those corporations have taken affirmative action to eliminate religious or ethnic discrimination. The statute lists nine goals modeled after the MacBride Principles.
- Sponsor, co-sponsor and support resolutions that encourage U.S. companies to pursue affirmative action in Northern Ireland, where feasible.

The statute does not require the SBI to divest existing holdings in any companies and does not restrict future investments by the SBI.

#### Implementation

The SBI uses the services of the Investor Responsibility Research Center (IRRC), Washington D.C., to monitor corporate activity in Northern Ireland. In January 1996, the SBI held stocks or bonds in 40 out of 44 corporations identified by IRRC as having operations in Northern Ireland.

The SBI filed shareholder resolutions with 12 of these corporations during the 1996 proxy season. The resolutions asked corporations to sign the MacBride Principles, to implement affirmative action programs or to report on the steps they have taken to alleviate religious or ethnic discrimination.

Five (5) resolutions were withdrawn when the targeted companies agreed to provide information on their employment activity in Northern Ireland. Two (2) companies challenged the proposed resolutions and received a no-action letter from the SEC stating that the proposal could be omitted on ordinary business grounds.

The voting results on the remaining 5 resolutions are shown below:

Company	Affirmative Vote
American Brands	10.6%
Baker Hughes	19.1
Dun & Bradstreet	14.7
Ford Motor Co.	5.9
Xerox	17.1

## Major Policy Initiatives

### 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. These resolutions range from routine issues, such as those involving the election of corporate directors and ratification of auditors, to matters such as merger proposals and corporate social responsibility issues. In effect, as a shareholder the SBI can participate in shaping corporate policies and practices.

### Voting Process

The Board recognizes its fiduciary responsibility to cast votes on proxy issues. Except for the shares held by active international managers, the SBI does not delegate the duty to its external investment managers. Rather, the SBI actively votes all shares according to guidelines established by its Proxy Committee.

The Board delegates proxy voting responsibilities to its Proxy Committee which is comprised of a designee of each Board member. The five member Committee meets only if it has a quorum and casts votes on proxy issues based on a majority vote of those present. In the unusual event that it reaches a tie vote or a quorum is not present, the Committee will cast a vote to abstain.

### Voting Guidelines

The Committee has formulated guidelines by which it votes on a wide range of corporate governance and social responsibility issues. Each year the Proxy Committee reviews existing guidelines and determines which issues it will review on a case-by-case basis.

#### **Corporate Governance Issues**

The voting guidelines for major corporate governance issues are summarized below:

**Routine Matters.** In general, the SBI supports management on routine matters such as uncontested election of directors; selection of auditors; and limits on director and officer liability or increases in director and officer indemnification permitted under the laws of the state of incorporation.

**Shareholder Rights Issues.** In general, the SBI opposes proposals that would restrict shareholder ability to effect change. Such proposals include instituting super-majority requirements to ratify certain actions or events; creating classified boards; barring shareholders from participating in the determination of the rules governing the board's actions, such as quorum requirements and the duties of directors; prohibiting or limiting shareholder action by written consent; and granting certain stockholders superior voting rights over other stockholders.

In general, the SBI supports proposals that preserve or enhance shareholder rights to effect change. Such proposals include requiring

shareholder approval of poison pill plans; repealing classified boards; adopting secret ballot of proxy votes; reinstating cumulative voting; and adopting anti-greenmail provisions.

**Executive Compensation.** In general, the SBI supports efforts to have boards of directors comprised of a majority of independent directors, to have compensation committees made up entirely of independent directors, and to have executive compensation linked to a company's long-term performance.

**Buyout Proposals.** In general, the SBI supports friendly takeovers and management buyouts.

**Special Cases.** The Proxy Committee evaluates hostile takeovers, contested election of directors, compensation agreements that are contingent upon corporate change in control, and re-capitalization plans on a case-by-case basis. In addition, the Committee reviews all corporate governance issues affecting companies incorporated or headquartered in Minnesota on a case-by-case basis.

#### **Social Responsibility Issues**

The voting guidelines for major social responsibility issues are shown below:

**Northern Ireland.** The SBI supports resolutions that call for the adoption of the MacBride Principles as a means to encourage equal employment opportunities in Northern Ireland. Also, the SBI supports resolutions that request companies to submit reports to shareholders concerning their labor practices or their sub-contractors' labor practices in Northern Ireland.



## Major Policy Initiatives

**Tobacco and Liquor.** In general, the SBI supports a variety of tobacco and liquor related resolutions including those that call for corporations to limit their promotion of tobacco and liquor products and to report on their involvement in tobacco issues.

**Environmental Protection.** In general, the SBI supports resolutions that require a corporation to report or disclose to shareholders company efforts in the environmental arena. In addition, the SBI supports resolutions that request a corporation to report on progress toward achieving the objectives of the Ceres Principles, (formerly known as the Valdez Principles) an environmental code of conduct for corporations.

**Other Social Responsibility Issues.** In general, the SBI supports proposals that require a company to report or disclose to shareholders company efforts concerning a variety of social responsibility issues. In the past, these reporting resolutions have included issues such as affirmative action programs, animal testing procedures, nuclear plant safety procedures and criteria used to evaluate military contract proposals.

### Summary of FY 1996 Proposals

During fiscal year 1996, the SBI voted proxies for more than 3,700 U.S. corporations and approximately 1,200 international companies.

As in past years, the issues on corporate ballots included a broad range of proposals in the *corporate governance* area, as reflected in information provided by the Investor Responsibility Research Center (IRRC), Washington, D.C.:

- Shareholder proposals regarding executive compensation were supported by an average of 11.5% of the shares voted. Shareholders submitted 31 proposals on various compensation issues.
  - Shareholders submitted 9 proposals to redeem “poison pills” (an anti-takeover device) or submit them to shareholder vote. These proposals received average support of 52.3%.
  - Four (4) proposals were submitted concerning confidential voting. These proposals received average support of 29.0%.
  - Shareholders submitted 15 proposals to restrict or cancel non-employee director pensions or shift at least half of board members’ pay to equity. These proposals received average support of 33.8%.
  - Other proposals included the repeal of classified boards which were supported by an average of 40.2% of shares voted; limitations of severance packages to top executives (“golden parachutes”) which received support from an average of 42.7% of shares voted; cumulative voting which was supported by an average of 24.5% of shares voted; and requirements for directors to hold a specified minimum number of shares which received support from an average of 13.6% of shares voted.
- In the *social responsibility* area, tobacco, environmental and equal employment resolutions dominated, as reflected in information provided by the IRRC.
- Resolutions asking corporations to spin off tobacco business, or add warning labels to all promotional items and logos were on 17 ballots with an average support of 6.7%, which matched the support level from the previous year.
  - Ceres Principles and other energy issues received 8 resolutions with average support of 10.3%.
  - Equal employment issues received 7 resolutions with an average support of 10.0%.
  - Military issues received 5 resolutions with an average support level of 9.9%.
  - Northern Ireland issues received 6 proposals this year with an average support of 13.2%.
  - Resolutions asking 6 corporations to report on operations of U.S. companies’ Maquiladoras operations received average support of 7.8%.

## Investment Manager Summaries

### Domestic Common Stock Managers

#### **Alliance Capital Management**

Alliance searches for companies likely to experience high rates of earnings growth on either a cyclical or secular basis. Alliance invests in a wide range of medium to large growth companies and the firm does not tend to concentrate 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. The firm was retained by the SBI in March 1983.

#### **Barclays Global Investors**

Barclays manages both passive and semi-passive portfolios for the SBI. For the *semi-passive* account, the firm uses a Core Alpha Model which segregates individual equity returns for each of the 3500 stocks in their universe into three components: fundamental, expectation, and technical. The fundamental factors look at measures of underlying company value including earnings, book value, cash flow, and sales. These factors help identify securities that trade at prices below their true economic value. The expectational factors incorporate future earnings and growth rate forecasts made by over 2500 security analysts. The technical factors provide a measure of recent changes in company fundamentals, consensus expectations, and performance. Estimated alphas are used in a portfolio optimization algorithm to identify the optimal portfolio that

maximizes the portfolio's alpha while maintaining a risk level specified by the client. For the *passive* account, Barclays passively manages the portfolio against the Wilshire 5000 by minimizing tracking error and trading costs, and maximizing control over all investment and operational risks. Their strategy is to fully replicate the larger capitalization segments of the market and to use an optimization approach for the smaller capitalization segments. The optimizer weighs the cost of a trade against its contribution to expected tracking error to determine which trades should be executed.

The firm was retained by the SBI for semi-passive management in January 1995 and for passive management in July 1995.

#### **Brinson Partners**

Brinson Partners uses a relative value approach to equity investing. They believe that the market price will ultimately reflect the present value of the cash flows that the security will generate for the investor. They also believe both a macroeconomic theme approach and the bottom-up stock selection process can provide insight into finding opportunistic investments. Brinson uses their own discounted free cash flow model as their primary analytical tool for estimating the intrinsic value of a company. Brinson was retained by the SBI in July 1993.

#### **CIC Asset Management**

##### **(Emerging Manager Program)**

CIC Asset Management uses a disciplined relative value approach to managing equities. The firm believes that purchasing companies at attractive prices provides superior long-term performance with lower volatility. This investment process is designed for clients who desire equity market exposure with both

incremental value added and downside protection due to reasonable dividend yields, moderate price to book values and low normalized price to earning ratios. Finally, the process provides a synergy between quantitative valuation techniques and "Graham & Dodd" fundamental analyses. CIC was retained by the SBI in April 1994.

#### **Cohen Klingenstein & Marks Inc.**

##### **(Emerging Manager Program)**

Cohen Klingenstein & Marks Inc., seeks to outperform the market by focusing on two variables: economic cycles and security valuation. Within economic cycles, they believe that stocks exhibit predictable patterns that reflect changing expectations on corporate profits and interest rates. Similarly, they believe that stock prices normally reflect earnings expectations. The firm exploits short run inefficiencies through an unbiased process that relates the price of a stock to consensus earnings expectations. The firm was retained by the SBI in April 1994.

#### **Compass Capital Management**

##### **(Emerging Manager Program)**

Compass Capital Management combines aspects of growth and value investing to achieve the proper blend of return (growth) and risk (value). They use a computer based data network to screen for large, well established companies whose earnings grow in spite of a weak economy. In addition, they look for companies whose earnings have grown well over long time periods, but which may experience earnings pressure with downturns in the economy. Particular focus is given to growth in sales, earnings, dividends, book value and the underlying industry. Due to their "growing company" orientation, their portfolios generally hold no utility, bank, deep cyclical, or oil and gas



## Investment Manager Summaries

stocks. Compass was retained by the SBI in April 1994.

### **Forstmann Leff Associates**

Forstmann Leff is a classic example of a “rotational” manager. The firm focuses almost exclusively on sector weighting decisions. Based upon its macroeconomic outlook, the firm will move aggressively into and out of equity sectors over the course of a market cycle. The firm tends to purchase liquid, medium to large capitalization stocks that will benefit the most during the current phase of the market cycle. The firm was retained by the SBI in March 1983.

### **Franklin Portfolio Associates**

Franklin Portfolio Associates manages both active and semi-passive portfolios for the SBI. Franklin’s investment decisions are quantitatively driven and controlled. The firm believes that consistent application of integrated multiple valuation models produces superior investment results. The firm’s stock selection model is a composite model comprised of 30 valuation measures each of which falls into one of the following groups: fundamental momentum, relative value, future cash flow, and economic cycle analysis. For the *active* product, Franklin’s portfolio management process adds value by focusing on buying and selling the right stock rather than attempting to time the market or pick the right sector or industry groups. For the *semi-passive* product, Franklin adds incremental value to a benchmark by buying stocks ranked the highest and selling stocks ranked the lowest, while maintaining the portfolio’s systematic risk and industry weightings at levels similar to the benchmark. For semi-passive accounts, Franklin attempts to allocate 75% or more of the total risk level set by the client to specific stock selection and the rest to

systematic and industry risk. The firm always remains fully invested. Franklin was retained by the SBI as an active manager in April 1989 and as a semi-passive manager in January 1995.

### **GeoCapital Corp.**

GeoCapital invests primarily in small capitalization equities with the intent to hold them as they grow into medium and large capitalization companies. The firm uses a theme approach and individual-stock selection analysis to invest in the growth/technology and intrinsic value areas of the market. In the growth/technology area, GeoCapital looks for companies that will have above average growth due to strong product development and limited competition. In the intrinsic value area, the key factors are corporate assets, free cash flow, and an unrecognized catalyst that will cause a positive change in the company. The firm generally stays fully invested, with any cash positions due to the lack of attractive investment opportunities. GeoCapital was retained by the SBI in April 1990.

### **Investment Advisers, Inc.-Regional**

Investment Advisers Inc. seeks to own the highest quality companies which demonstrate sustainable growth. IAI tries to achieve this objective by investing at least 80% of the portfolio in companies which have their headquarters in Minnesota, Wisconsin, Illinois, Iowa, Nebraska, Montana, North Dakota and South Dakota. Twenty percent of the portfolio can be used to purchase large capitalization stocks that display the same quality and growth characteristics but have headquarters outside this region. The portfolio uses the same discipline as the IAI, Inc.-Regional Mutual Fund. IAI was retained by the SBI in July 1993.

### **IDS Advisory Group**

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 both sector weighting and stock selection decisions. Over a market cycle IDS invests in a wide range of industries. The firm tends to buy liquid, large capitalization stocks. Based on their internal research, they purchase stocks that will incur the highest growth rates within the sectors they favor. The firm was retained by the SBI in March 1983.

### **Independence Associates**

Independence believes that individual stocks which outperform the market always have two characteristics: 1) they are intrinsically cheap; and 2) their business is in the process of improving. Independence ranks their universe using a multifactor model. Using input primarily generated by their internal analysts, the model ranks each stock based on ten discreet criteria. Independence constrains their portfolio by using the top 60% of their ranked universe and optimizing it relative to the benchmark selected by the client to minimize the market and industry risks. Independence maintains a fully invested portfolio and rarely holds more than a 1% cash position. The firm was retained by the SBI in February 1992.

### **J.P. Morgan Investment Management**

J.P. Morgan manages a semi-passive portfolio for the SBI and believes that superior stock selection is necessary to achieve excellent investment results. To accomplish this objective, they use fundamental research and a systematic valuation model. Analysts forecast earnings and dividends for the 650 stock universe and enter these into a stock



## **Investment Manager Summaries**

valuation model that calculates an expected return for each security. The stocks are ranked according to their expected return within their economic sector. Stocks most undervalued are placed in the first quintile. The portfolio includes stocks from the first four quintiles, favoring the highest ranking stocks whenever possible, and sells those in the fifth quintile. In addition, the portfolio will closely approximate the sectors and style of the benchmark. The firm remains fully invested at all times. The firm was retained by the SBI in January 1995.

### **Jundt Associates**

Jundt Associates' investment philosophy is growth oriented with a focus on companies generating significant revenue increases. They concentrate on larger-capitalization companies, with at least half the equity securities consisting of companies with annual revenues over \$750 million. Within these parameters, the firm aims to establish equity positions in 30 to 50 of the fastest growing corporations in America. Particular emphasis is placed on companies the firm believes will achieve annual revenue growth of 15% or greater. Jundt utilizes a bottom-up stock selection process combined with a top-down theme overlay. The firm attempts to identify five to seven investment themes and typically invests three to five stocks within each theme. The firm was retained by the SBI in July 1993.

### **Kennedy Capital Management (Emerging Manager Program)**

Kennedy Capital Management is dedicated to exploiting pricing inefficiencies in under-followed and misunderstood small capitalization stocks. They believe that stocks are efficiently priced where there is a proper distribution of information. However, many emerging growth

companies suffer from lack of analytical coverage and information flow, and therefore, are "invisible" to institutional investors. The firm believes it is this lack of information which creates pricing inefficiencies. They anticipate that by closing this information gap they can transform these holdings into attractive institutional candidates. This, in turn, should increase the price of the stock. Kennedy was retained by the SBI in April 1994.

### **Lincoln Capital Management**

Lincoln Capital concentrates on established, medium to large capitalization companies that have demonstrated historically strong growth and will continue to grow. The firm uses traditional fundamental company analysis and relative price/earnings valuation disciplines in its stock selection process. In addition, companies held by Lincoln generally exhibit premium price/book ratios, high return on equity, strong balance sheets and moderate earnings variability. Lincoln was retained by the SBI in July 1993.

### **New Amsterdam Partners (Emerging Manager Program)**

New Amsterdam Partners believe that investment results are evaluated by actual return, and therefore, investment opportunities should be evaluated by expected return. They believe that all valid techniques depend on forecasts of the amounts and timing of future cash flows. Thus, the firm focuses on forecasted earnings growth, yield, price-to-book ratio, and forecasted return on equity. They believe that the disciplined application of their valuation techniques in conjunction with sound financial analysis of companies, is the key to understanding and maximizing investment returns. New Amsterdam was retained by the SBI in April 1994.

### **Oppenheimer Capital**

Oppenheimer's objectives are to: 1) preserve capital in falling markets; 2) manage risk in order to achieve less volatility than the market; and 3) produce returns greater than the market indices, the inflation rate and a universe of comparable portfolios with similar objectives. The firm achieves its objectives by purchasing securities considered to be undervalued on the basis of known data and strict financial standards. In addition, Oppenheimer will make moderate shifts between cash and equities based on its outlook on the market and the economy. The firm focuses on five key variables when evaluating companies: management, financial strength, profitability, industry position and valuation. Oppenheimer was retained by the SBI in July 1993.

### **Valenzuela Capital Management (Emerging Manager Program)**

Valenzuela Capital Management believes that stock selection and adherence to valuation analysis are the backbone of superior performance. Their investment philosophy is one of risk averse growth. The firm seeks companies undergoing strong rates of change in earnings, cash flow and returns. These companies are experiencing positive changes in revenues, gross and operating margins and financial structure. To be considered for investment, these stocks must sell at or below market valuations. The firm believes that below market valuations provide downside protection during weak market periods. In strong markets the portfolios will be driven by both earnings growth and multiple expansion. Valenzuela was retained by the SBI in April 1994.

### **Waddell & Reed**

Waddell & Reed focuses primarily on small to medium capitalization



## Investment Manager Summaries

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 levels of cash at various points in the market cycle. Waddell & Reed was retained by the SBI in March 1983.

### **Weiss, Peck & Greer**

Weiss, Peck & Greer's dynamic growth process concentrates on small to medium size growth companies that have demonstrated consistent superior earnings growth rates. The process emphasizes companies in new or dynamic, rapidly growing industries where there is a potential for a major acceleration in earnings growth. The firm also believes that superior stock selection can be achieved through in-depth fundamental company research. The firm was retained by the SBI in July 1993.

### **Wilke/Thompson Capital Management Inc. (Emerging Manager Program)**

The investment philosophy of Wilke/Thompson is to invest in high quality growth companies that demonstrate the ability to sustain strong secular earnings growth, notwithstanding overall economic conditions. The firm's investment approach involves a bottom-up fundamental process. The stock selection process favors companies with strong earnings, high unit growth, a proprietary market niche, minimum debt, conservative accounting and strong management practices. They formulate investment ideas by networking with the corporate managers of their current and prospective holdings, as well as with regional brokers, venture capitalists, and other buy-side portfolio managers. The firm was retained by the SBI in April 1994.

### **Winslow Capital Management (Emerging Manager Program)**

Winslow Capital Management believes that investment in companies with above average earnings growth provide the best opportunities for superior portfolio returns over time. The firm believes that a high rate of earnings growth is often found in medium capitalization growth companies of \$1 to \$10 billion market capitalization. Thus, to seek superior portfolio returns while maintaining good liquidity, Winslow emphasizes a growth strategy buying securities of both medium and large capitalization companies. The objective is to achieve a weighted average annual earnings growth rate of 15-20% over a 2-3 year time horizon. Winslow was retained by the SBI in April 1994.

### **Zevenbergen Capital Inc. (Emerging Manager Program)**

Zevenbergen Capital is a growth manager. Its investment philosophy is based on the belief that earnings drive stock prices while quality provides capital protection. Hence, portfolios are constructed with companies showing above-average earnings growth prospects and strong financial characteristics. They consider diversification for company size, expected growth rates and industry weightings to be important risk control factors. The firm uses a bottom-up fundamental approach to security analysis. Research efforts focus on finding companies with superior products or services showing consistent profitability. Attractive buy candidates are reviewed for sufficient liquidity and to potential for diversification. The firm does not believe in market timing. Zevenbergen was retained by the SBI in April 1994.

**Portfolio statistics for each of the domestic equity managers can be**

**found in the Statistical Data section of this report.**

## International Stock Managers

### **Baring International Investment Ltd.**

Barings manages an active country/passive stock portfolio for the SBI. Baring's strategic policy team is responsible for country and currency decisions. Country decisions are based on a macroeconomic framework to identify growing economies as evidenced by positive changes in gross domestic product and interest rates. Barings uses State Street Global Advisors to manage the passive stock portion of the portfolio. Barings advises State Street of the allocation decisions and State Street invests accordingly in their various country index funds. State Street also implements any hedging activity at the direction of Barings. Barings was retained by the SBI in April 1993.

### **Brinson Partners, Inc.**

Brinson manages an active country/passive stock portfolio for the SBI. Brinson uses a proprietary valuation model to rank the relative attractiveness of individual markets based on fundamental considerations. Inputs include forecasts for growth, inflation, risk premiums and foreign exchange movements. Quantitative tools are used to monitor and control portfolio risk, while qualitative judgments from the firm's professionals are used to determine final country allocations. The passive stock portion of the portfolio is managed internally. Brinson constructs its country index funds using a proprietary optimization system. Brinson was retained by the SBI in April 1993.



## Investment Manager Summaries

### **Genesis Asset Managers**

Genesis is an emerging markets specialist. Genesis believes that the critical factor for successful investment performance in emerging markets is stock selection. They also believe that structural changes in emerging markets will continue to create both winners and losers in the corporate sector. Finally, they believe that following index stocks will not necessarily expose an investor to the highest returns since those stocks are typically concentrated in large capitalization companies that have already attained a certain level of recognition. They identify those countries in which structural change will most likely generate growth opportunities for business and/or where the environment is supportive of a flourishing private sector. Stock selection is based on Genesis' estimate of the value of the company's future real earnings stream over five years relative to its current price. The portfolio consists of the most undervalued stocks across all markets with emphasis on growth with value. The SBI retained Genesis in May 1996.

### **Marathon Asset Management**

Marathon uses a blend of flexible, qualitative disciplines to construct portfolios which exhibit a value bias. Style and emphasis will vary over time and by market, depending on Marathon's perception of lowest risk opportunity. Since the firm believes that competition determines profitability, Marathon is attracted to industries where the level of competition is declining and they will hold a sector position as long as the level of competition does not increase. At the stock level, Marathon tracks a company's competitive position versus the attractiveness of their products or services and attempts to determine whether the company is following an appropriate reinvestment strategy for

their current competitive position. Marathon was retained by the SBI in November 1993.

### **Montgomery Asset Management**

Montgomery is an emerging markets specialist. The firm combines quantitative investment techniques and fundamental stock selection to take advantage of market inefficiencies and low correlation within the emerging markets. Their top-down analysis begins with a quantitative approach which evaluates historical volatility and correlations between markets. The model identifies attractive countries which are then qualitatively analyzed for "event risk" which the model cannot take into account. Fundamental analysis is used to evaluate the financial condition, quality of management, and competitive position of each stock. Stocks will come from two tiers. Tier 1 will be 60-100 blue chip stocks. Tier 2 will be 100-150 smaller cap stocks with substantial growth potential. Characteristics of selected stocks may include low PE's to internal growth rates, above average earnings growth potential or undervalued/hidden assets. Montgomery was retained by the SBI in May 1996.

### **Record Treasury Management**

Record Treasury manages a currency overlay program for the SBI. Record Treasury avoids all forms of forecasting in its approach to currency overlay. Rather, the firm employs a systematic model which uses a form of dynamic hedging. The firm creates a portfolio of synthetic currency options using forward contracts. Like traditional options, Records' "in-house options" allow the client to participate in gains associated with foreign currency depreciation. As with all dynamic hedging programs, Record Treasury will tend to sell foreign currency as it

weakens and buy as it strengthens. The SBI retained Record Treasury in December 1995.

### **Rowe Price-Fleming International, Inc.**

Rowe Price-Fleming believes that world stock markets are segmented. The firm attempts to add value by identifying and exploiting the resulting pricing inefficiencies. In addition, they believe that growth is frequently under priced in the world markets. The firm establishes its economic outlook based largely on interest rate trends and earnings momentum. The portfolio management team then assesses the country, industry and currency profile for the portfolio. Within this framework, stock selection is the responsibility of regional portfolio managers. Stocks are selected using fundamental analysis that emphasizes companies with above-market earnings growth at reasonable valuations. Information derived from the stock selection process is a key factor in country allocation as well. Rowe Price-Fleming was retained by the SBI in November 1993.

### **Scudder, Stevens & Clark**

Scudder believes that successful international investing requires knowledge of each country's economy, political environment and financial market obtained through continuous and thorough research of individual markets and securities. The investment process focuses on three areas: country analysis, global themes and unique situations. Ideas from all three areas are integrated into Scudder's research universe. Using their own internal research, the firm seeks companies with potential for earnings and dividend growth, strong or improving balance sheets, superior management, conservative accounting practices and dominant position in growing industries.



## Investment Manager Summaries

Scudder was retained by the SBI in November 1993.

### **State Street Global Advisors**

State Street manages an international index portfolio designed to track the Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE index). State Street uses a full replication strategy to construct index modules on a country by country basis. These modules are then combined to form a portfolio which will track the entire index. State Street was retained by the SBI in October 1992.

### **Templeton Investment Counsel, Inc.**

Templeton's goal is to identify those companies selling at the greatest discount to future intrinsic value. The firm takes a long-term approach to investing and believes that, over time, markets are efficient and patience will reward those who have identified undervalued stocks. Stock selection dominates Templeton's investment approach; country, sector and industry weightings are a residual of the stock selection process. Stock ideas are obtained from a worldwide network of research sources and screens of their own global database. From this preliminary list, analysts conduct fundamental analysis to distinguish a "cheap" stock from a "bargain." The firm seeks stocks that are cheap relative to their own price history, their global industry and their domestic market. Each stock on the resulting "bargain list" has established buy and sell price targets and is purchased and sold accordingly. Templeton was retained by the SBI in November 1993.

**Portfolio statistics for each of the international managers can be found in the Statistical Data section of this report.**

## Bond Managers

### **BEA Associates**

BEA Associates' investment approach focuses on security and sector selection rather than forecasts of short term interest rates. BEA keeps the duration close to the benchmark but may be slightly longer or shorter depending on its long-term economic outlook. The firm's approach is distinguished by 1) a quantitative approach which avoids market timing; 2) contrarian weighting of bond sectors; and 3) rigorous call and credit analysis rather than yield driven management. The firm was retained by the SBI in July 1993.

### **BlackRock Financial Management**

BlackRock manages a semi-passive bond portfolio and uses a controlled duration style of management. BlackRock's enhanced index strategy can be described as active management with tighter duration and sector constraints to ensure that the portfolio's aggregate risk characteristics and tracking error never significantly differ from the designated index. BlackRock's value added is derived primarily from sector and security selection driven by relative value analysis while applying disciplined risk control techniques. BlackRock was retained by the SBI in April 1996.

### **Goldman Sachs Asset Management**

Goldman Sachs manages a semi-passive bond portfolio designed to track the Lehman Aggregate index. The firm models Treasury coupons with an arbitrage based pricing model. This model determines the spread between actual and intrinsic market yields and determines whether the security is rich or cheap. Goldman takes a highly quantitative and analytical approach to value

mortgage securities as well. The firm uncovers undervalued securities using proprietary research and internally developed models. In the corporate sector, Goldman performs its own credit review of each issue. The firm adds value to the corporate sector with extensive research, market knowledge and trading skill. Goldman was retained by the SBI in July 1993.

### **IDS Advisory Group**

IDS Advisory Group emphasizes on corporate and treasury securities for the SBI. The firm uses duration management combined with in-depth fundamental analysis of the corporate sector to add value to the portfolio. Active duration management begins with an economic overview and interest rate outlook. These factors help IDS determine the direction of both short and long-term interest rates which leads to the portfolio duration decision. After IDS determines duration, they use their extensive corporate research capabilities to determine corporate sector allocation and to select individual issues. The firm was retained by the SBI in July 1993.

### **Investment Advisers Inc.**

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

## Investment Manager Summaries

selection receives very limited emphasis and focuses largely on specific bond characteristics such as call provisions. Investment Advisers was retained by the SBI in July 1984.

### **Lincoln Capital Management**

Lincoln Capital manages a diversified semi-passive bond portfolio designed to track the Lehman Aggregate index. Lincoln employs quantitative disciplines that model the Lehman index according to a variety of risk variables. Lincoln seeks to enhance returns relative to the index by modest alterations to sector weightings, with the use of undervalued securities, and through an aggressive trading strategy in mortgage securities. The objective is to provide modest increments to the index return on a consistent basis. Lincoln was retained by the SBI in July 1988.

### **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. In addition, the firm will move in and out of cash gradually over an interest rate cycle. The firm never takes extremely high cash positions and keeps total portfolio maturity within an intermediate three-to-seven year duration band. Unlike other firms that also invest in mortgage securities, Miller Anderson intensively researches and, in some cases, manages the mortgage pools in

which it invests. Miller was retained by the SBI in July 1984.

### **Standish, Ayer & Wood**

Standish, Ayer & Wood adds value by capitalizing on market inefficiencies and trading actively through intra and inter-sector swapping. The firm does not forecast interest rates but adds value to the portfolio by buying non-Treasury issues. Key to the approach is active sector trading and relative spread analysis of both sectors and individual issues. In addition to sector spreads, the firm also analyzes how secular trends affect bond pricing. The firm believes that 65% of its value added comes from inter-sector swapping in non-government sectors. Standish was retained by the SBI in July 1993.

### **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. Western was retained by the SBI in July 1984.

**Portfolio statistics for each of the bond managers can be found in the Statistical Data section of this report.**

## Alternative Investment Managers

### Basic Retirement Funds

### Real Estate

#### **Aetna Realty Investors**

##### **Fund: RESA**

Real Estate Separate Account (RESA) is an open-end commingled real estate fund managed by the AetnaRealty Investors. The fund was formed in January 1978 and the SBI's commitment was made in April 1982. The fund has no termination date; investors have the option to withdraw all or a portion of their investments. 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.

#### **Colony Advisors**

##### **Fund: Colony Investors II, L.P.**

Colony Investors II is a closed-end commingled real estate fund managed by Colony Capital Inc. Of Los Angeles, California. The fund's strategy is to invest in undervalued equity and debt real estate-related assets. The SBI committed to the Fund in September 1994. The fund is expected to terminate in 2003.

#### **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 and the SBI's commitment was made in October 1981. The fund has no termination date and investors retain the option to withdraw all or a portion of their investment. The fund makes equity investments in existing real estate and is diversified by



## Investment Manager Summaries

location and property type. Management of the fund's properties is contracted to outside firms or is conducted by joint venture partners.

### **First Asset Realty**

#### **Funds: First Asset Realty Fund**

First Asset Realty Fund (FAREEF), was created by First Bank in 1981 as an open-end real estate fund and in 1990 adopted a closed-end format. The fund is currently in liquidation and property sale proceeds are being distributed to unit holders. The SBI received this investment through Police and Fire Fund consolidations.

### **Heitman Advisory Corp. (HAC)**

#### **Funds: HAC Group Trust I**

##### **HAC Group Trust II**

##### **HAC Group Trust III**

##### **HAC Group Trust V**

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. Heitman manages the trusts' wholly-owned properties. Heitman Advisory is based in Chicago. The SBI committed to the Group Trusts in August 1984, November 1985, February 1987 and December 1991. The funds are expected to terminate in 1999, 2001, 2002, and 2005.

### **LaSalle Advisors**

#### **Fund: LaSalle Income Parking Fund**

The Income Parking Fund is a closed-end commingled fund managed by LaSalle Advisors of Chicago, Illinois. The fund's strategy is to acquire unleveraged parking facilities to maximize current return to the investors. In special situations, the fund may develop new parking facilities, but only when yield requirements can be maintained. LaSalle has considerable expertise in

this area, with close to 100,000 parking spaces under management in the U.S. The SBI committed to the Fund in September 1991. The fund is expected to terminate in 2005.

### **Rosenberg Real Estate Equity Funds (RREEF)**

#### **Fund: RREEF USA III**

RREEF USA III is a closed-end commingled fund managed by the Rosenberg Real Estate Equity Funds. 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. The SBI committed to the fund in May 1984. The Fund has reached the end of its investment term and is liquidating its property holdings.

### **State Street Bank & Trust**

#### **Funds: AEW - State Street Real Estate Fund III**

##### **AEW - State Street Real Estate Fund IV**

##### **AEW - State Street Real Estate Fund V**

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 Walth (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. The SBI committed to the funds in September 1985, September 1986 and December 1987. The funds

are expected to terminate in 1999, 2001, and 2002.

### **TA Associates Realty**

#### **Fund: TA Realty Associates Fund III**

TA Realty Associates Fund III is a closed-end, commingled real estate fund formed in June 1994 and managed by TA Associates Realty of Boston, MA. The fund will invest in small to medium sized properties generally diversified by location and type. On-site management of properties is contracted to outside firms. The SBI committed to the fund in June 1994. The fund has a ten year term.

### **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. The SBI committed to the funds in August 1985 and November 1986. The funds have reached the end of their investment terms and are in the process of liquidating their property holdings.

### **Zell/Merrill Lynch**

#### **Funds: Zell/Merrill Lynch Real Estate II**

##### **Zell/Merrill Lynch Real Estate III**

##### **Zell/Merrill Lynch Real Estate IV**

Zell/Merrill Lynch Real Estate Funds II, and III are based in Chicago,

## Investment Manager Summaries

Illinois. The funds will make equity or equity-related investments in opportunistic real estate situations. The partnerships will acquire office, retail, and residential properties and may also invest in mixed-use and industrial properties. The funds have the authority to acquire convertible or participating mortgages. The SBI committed to the funds in November 1991 and January 1994. The funds are expected to terminate in 2010, 2015, and 2012.

### Private Equity

#### **Allied Capital**

##### **Fund: Allied Venture Partnership**

Allied Venture Partnership was formed in September 1985 with a ten-year term which has been extended until 1998. 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, publicly owned venture capital corporation which was formed in 1958.

#### **Blackstone Group**

##### **Fund: Blackstone Capital Partners Fund II**

The Blackstone Capital Partners Fund II is a limited partnership which was formed in November 1993 and has a ten year term. Based in New York, the fund will invest in a diverse number and type of private equity transactions. Up to 25% of the fund may be invested outside of the United States and Canada.

#### **Brinson Partners**

##### **Funds: Venture Partnership Acquisition Fund I Venture Partnership Acquisition Fund II**

Brinson Partners Venture Partnership Acquisition Funds I and II were

formed in 1988 and 1990, respectively. The limited partnerships have ten year terms. Fund I and II invest exclusively in secondary venture capital limited partnership interests which are sold by investors who, for a variety of reasons, have decided to sell some or all of their venture capital holdings. Brinson Partners is based in Chicago, Illinois.

#### **ChiCorp Management, Inc.**

##### **Fund: Midwest Bank Fund III Banc Fund IV**

Midwest Bank Fund III was formed in October 1992 and has a nine year term. Fund IV was formed in February 1996 and has an eight year term. Based in Chicago, Illinois, the funds will invest primarily in sub-regional banks, located primarily in the Midwest, which have demonstrated above average growth and are likely acquisition targets.

#### **Churchill Capital, Inc.**

##### **Fund: Churchill Capital Partners II**

Churchill Capital Partners II was formed in October 1992 and has a twelve year term. Based in Minneapolis, Minnesota, the fund provides subordinated debt to established small and medium-sized companies. Fund investments will not be restricted to any particular region, although it is anticipated that a substantial portion will be in the Midwest.

#### **Coral Group Inc.**

##### **Funds: IAI Venture Partners Coral Partners I Coral Partners II Coral Partners IV**

The Coral Group Inc. comprised the professional staff of IAI Venture Capital Group prior to the spinout of that group from Investment Advisers, Inc. in the fall of 1993.

Coral Partners I (formerly Superior Ventures) is a Minnesota-based venture capital limited partnership. It was formed in June 1986 and has an eleven-year term. 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.

IAI Venture Partners and Coral Partners II (formerly IAI Ventures II) and IV are also Minnesota-based venture capital limited partnerships managed by the Coral Group. These funds have venture capital investment strategies similar to Coral I's but are more diversified geographically. They were formed in 1984, 1991 and 1994 respectively and have eleven year terms. The term for IAI Ventures has been extended to accommodate orderly liquidation of investments.

#### **DSV Management Ltd.**

##### **Fund: DSV Partners IV**

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.

#### **Golder, Thoma, Cressey and Rauner**

##### **Funds: Golder, Thoma and Cressey Fund III Golder, Thoma and Cressey Fund IV**

Golder, Thoma and Cressey Funds III and IV are venture capital limited partnerships and were formed in



## Investment Manager Summaries

October 1987 and April 1993, respectively. The funds are based in Chicago, Illinois and have ten year terms. The funds will invest in growing private businesses, find and build companies in fragmented industries and invest in small leveraged buyouts. In addition, the portfolio will be diversified geographically and by industry.

### **Hellman and Friedman**

**Fund:** *Hellman and Friedman III*  
Hellman and Friedman (H&F) was organized in 1994 and has a ten year term. Based in San Francisco, the fund will pursue opportunistic private equity investment located in the U.S. and internationally.

### **Inman & Bowman Management**

**Fund:** *Inman & Bowman*  
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 which is currently in its second one-year extension.

### **Kohlberg, Kravis, Roberts & Co. (KKR)**

**Funds:** *KKR 1984 Fund*  
*KKR 1986 Fund*  
*KKR 1987 Fund*  
*KKR 1993 Fund*

KKR's Funds are structured as limited partnerships. The funds invest in large leveraged buyouts but may include other types of investments as well. The partnerships' portfolio companies are often mature, low technology companies with very diversified operations. Kohlberg, Kravis, Roberts and Co. operates offices in New York and San Francisco. The

funds were formed in the years cited above and have terms of twelve years on individual portfolio company investments.

### **Matrix Partners**

**Funds:** *Matrix Partners II*  
*Matrix Partners III*

Matrix Partners II and III are venture capital limited partnerships that were formed in 1985 and 1990, respectively, with terms of ten years. Fund II has extended its term for three more years in order to provide for an orderly liquidation of holdings. Investment emphasis is on high-technology firms in the early and expansion stages of corporate development. However, for diversification the portfolios will include a sizable component of non-technology firms. The portfolios may include several small leveraged buyout investments as well. The funds are managed by five general partners with offices in Boston, San Jose, and San Francisco.

### **Norwest Venture Capital Management**

**Fund:** *Northwest Venture Partners I*

Northwest Venture Partners I was formed in January 1984 and is expected to terminate in 2013. 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, a small business investment company (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.

### **Smith Barney Venture Corp.**

**Fund:** *First Century III*

First Century III was formed in December 1984. It is structured as a limited partnership with a term of twelve years which has been extended two additional 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.

### **Stamps, Woodsum and Co.**

**Funds:** *Summit Ventures I*  
*Summit Ventures II*

Summit Ventures I and II are limited partnerships formed in 1986 and 1988 with ten-year terms. Fund I is in a two year extension. The funds were formed by Stamps, Woodsum & Co., the managing general partners of the fund. Stamps and Woodsum focus on profitable, expansion stage firms that have not yet received any venture backing. The majority of the partnerships investments are in high tech firms. Investments are diversified by location and industry type.

### **The Jacobs Group**

**Fund:** *IMR Fund, L.P.*

The IMR Fund was formed in May 1992 and has a ten year term. The Fund will invest in established operating companies with assets and/or business segments offering opportunities for significantly enhanced appreciation. Investments in financially troubled or excessively leveraged companies, particularly bankrupt or poorly managed companies with high asset bases, will be a focus of the Fund.

## Investment Manager Summaries

### **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 capitalization and illiquid stocks.

### **E.M. Warburg, Pincus & Co., Inc.**

**Fund:** Warburg, Pincus Ventures, L.P.

Warburg Pincus Ventures, L.P. is based in New York, New York. This fund will invest private equity in a wide variety of businesses located domestically and abroad. The SBI committed to the fund in September 1994. The fund has a 12 year term.

### **Zell/Chilmark**

**Fund:** Zell/Chilmark

Zell/Chilmark was formed in July 1990 with a 10 year term. Based in Chicago, Illinois, the Fund focuses on corporate restructuring and rejuvenation situations. The partnership will invest primarily in the assets, debt and/or common and preferred stock of companies with a fair market value of at least \$100 million.

### **Resource Funds**

### **Apache Corporation**

**Fund:** Apache Acquisition Net Profits Interest

Apache Corporation is a Houston based oil and gas company. Apache Acquisition Net Profits Interest is a private placement that was formed in 1986 to acquire a non-operating interest in the net profit generated by oil and gas properties acquired in 1986 from Occidental Petroleum Company. The fund will remain in

effect throughout the producing life of the properties.

### **First Reserve Corp.**

**Funds:** AMGO I  
AMGO II  
AMGO IV  
AMGO V

American Gas and Oil (AMGO) funds were formed in 1981, 1983, 1988, and 1990, respectively, and are structured as limited partnerships. The funds are expected to terminate in 2001, 2001, 1998, and 2000, respectively. 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.

### **J.P. Morgan Investment Management**

**Fund:** Morgan Petroleum Fund II

Morgan Petroleum Fund II was formed in July 1988 and is managed by J.P. Morgan Investment Management, Inc. The fund managers have an office in Houston, Texas. Fund investments will be diversified geographically and by company. Most investments will take the form of an overriding royalty interest and will include, primarily, property acquisitions and development drilling. The fund has a 15 year term.

### **Simmons & Company**

**Funds:** OFS Investments, L.P. II  
OFS Investments, L.P. III

The Funds serve as vehicles for investment in the oil field service (OFS) and equipment industry. The General Partner is located in Houston, Texas and will endeavor to negotiate transactions that display strong fundamentals, value-added opportunities, reasonable pricing and

appropriate financial structuring possibilities. Fund I was formed in 1992 and Fund II was formed in 1994. Both funds have a 10 year term.

## Alternative Investment Managers

### Post Retirement Fund

### Real Estate

#### **Colony Advisors**

**Fund:** Colony Investors II, L.P.

Colony Investors II is a closed-end commingled real estate fund managed by Colony Capital Inc. Of Los Angeles, California. The fund's strategy is to invest in undervalued equity and debt real estate-related assets. The SBI committed to the Fund in September 1994. The fund is expected to terminate in 2003.

#### **Westmark Realty Advisors**

**Fund:** Westmark Commercial Mortgage Fund II

Westmark Commercial Mortgage Fund II is a fund formed in 1995 with a ten year term. Based in Los Angeles, California, the fund focuses on mortgage investment on real estate located throughout the U.S.

### Private Equity

#### **Citicorp Capital Investors, Ltd.**

**Fund:** Citicorp Mezzanine Partners, L.P. II

Citicorp Mezzanine Fund is a limited partnership formed in 1994 by Citicorp Capital Investors Ltd. Of New York, New York. Fund II will invest in a broad range of transactions utilizing subordinated debt and equity securities. The SBI committed to Fund II in September 1994. The fund has expected term of 10 years.



## **Investment Manager Summaries**

### **Kleinwort Benson**

#### **Fund: KB Mezzanine Fund II**

KB Mezzanine Fund II is a limited partnership formed in 1994 by Kleinwort Benson Group, a leading London-based merchant banking firm. Fund II invests in a broad range of transactions including utilizing subordinated debt and equity securities. The SBI committed to the fund in September 1994. The fund has an expected 8 year term.

### **Stamps, Woodsum & Co.**

#### **Fund: Summit Subordinated Debt Fund**

Summit Subordinated Debt Fund is a limited partnership formed in 1994 with a ten year term. The fund was formed by Stamps, Woodsum & Co., the managing general partners of the fund. The fund will invest in many of the same companies as the Summit Venture funds. Investments by this partnership will principally take the form of subordinated debt with equity features. These yield-oriented investments will provide current income over the life of the investment with the potential for additional returns.

### **TCW Crescent Mezzanine, L.L.C.**

#### **Fund: TCW/Crescent Mezzanine Partners, L.P.**

TCW/Crescent is a Los Angeles based limited partnership formed in 1991. The Fund will make mezzanine investments including subordinated debt with equity participations primarily in profitable, middle market companies. The SBI committed to the Fund in 1996. The Fund is expected to terminate in 2006.

### Stock Manager Risk Factor Exposure Glossary

The following definitions describe the risk factors that the State Board of Investment (SBI) uses in monitoring its stock managers. The terms are referred to in the Risk Factor Exposure table that follows this glossary.

SBI analysis of a stock manager's portfolio, in part, utilizes the BARRA E2 risk model. The BARRA model contains a number of risk factors that the SBI has found to correlate highly with a manager's investment style. That is, a manager tends to exhibit consistent exposures to many of these risk factors over time. The benchmark construction process includes identifying these persistent exposures and capturing them in the benchmark portfolio.

Factor exposures are calibrated relative to approximately 1400 of the largest market capitalization (HICAP) companies. An exposure level of 0 for a particular stock to a particular factor indicates that the stock has the same exposure as the capitalization-weighted average of the HICAP stocks. Around that zero exposure, deviations are measured in standard deviation units. Thus, an exposure level of +1 indicates that the stock has a greater exposure to the factor than roughly 68% of the HICAP stocks.

#### **Beta**

Forecasts the sensitivity of a stock's return to the return on the market portfolio. The BARRA E2 beta is a forecasted beta, based on a company's exposure to thirteen common risk factors and fifty-five industries.

#### **Book-to Price (B/P)**

Measures the book value of a company's common equity divided by market capitalization.

#### **Dividend Yield (Div. Yld.)**

Used as a predictor of dividend yield for the coming year.

#### **Earnings-to-Price (E/P)**

Incorporates several variants of a company's earnings-price ratio. Includes the current earnings-price ratio, the normalized (5 year) earnings-price ratio, and analyst's forecasted earnings-price ratio as compiled by the Institutional Brokerage Estimate Services (IBES).

#### **Earnings Variability (Earn. Var.)**

Indicates the variability of a company's earnings. Comprised of six descriptors: historical earnings variance, cash flow variance, earnings covariability with the economy, the level of concentration of the company's earnings from various sources, the incidence of

extraordinary items, and the variability of the company's earnings estimates as compiled by IBES.

#### **Equity Allocation (Eq. Alloc.)**

Measures the percent of the manager's total portfolio invested in common stocks, preferred stocks and convertible securities.

#### **Financial Leverage**

Measures the extent to which a company utilizes financial leverage to finance its operations. Comprised of three descriptors: debt-to-total assets (at market), debt-to-total assets (at book), and uncovered fixed charges.

#### **Foreign Income (For. Inc.)**

Measures the extent to which a company's operating income is generated outside of the U.S.

#### **Growth**

Indicates potential growth in a company's earnings over the next five years. Comprised of seven descriptors: most recent five-year dividend payout, most recent five-year dividend yield, most recent five-year earnings-price ratio, change in capital structure, normalized (5 year) earnings-price ratio, recent earnings change, and forecasted earnings growth.

#### **Labor Intensity (Labor Int.)**

Measures the degree to which labor, as opposed to capital, is used by a company as a factor of production. Derived from three descriptors: labor expense relative to assets, fixed plant and equipment (inflation adjusted) relative to equity, and depreciated plant value relative to gross plant value.

#### **Monthly Turnover (Mo. T/O)**

Measures the total equity asset sales divided by the average value of the equity assets in the manager's portfolio.

#### **Size**

Indicates the relative size of the company. It includes three descriptors: market capitalization, total assets, and the length of earnings history.

#### **Success (Suc.)**

Describes the extent to which a company has been "successful" in the recent past, in terms of both earnings and stock prices. Composed of six descriptors: most recent five-year earnings growth, most recent one-year earnings growth, forecasted next year's earnings growth, historical alpha, and relative strength. (The last two descriptors are



## **Statistical Data**

calculated over the most recent year and most recent five years).

### ***Trading Activity (Trad. Act.)***

Measures the trading characteristics of a company's stock. Comprised of six descriptors: most recent five-year share turnover, most recent year share turnover, quarterly share turnover, stock price, trading volume relative to stock price variance, and the number of IBES analysts following the stock.

### ***Variability in Markets (Var. Mkts.)***

Measures the volatility of a stock's return related to its past behavior and the behavior of its options. Variants of the factor are calculated for optioned stocks, listed but not optioned stocks, and thinly traded stocks. A partial list of the descriptors that make up this factor include: historical beta, option-implied standard deviation of return, daily standard deviation of return, cumulative price range, stock price, and share turnover.

## EXTERNAL ACTIVE STOCK MANAGERS

### Risk Factor Exposures July 1991-June 1996

	Beta	Var. Mkts.	Suc.	Size	Trad. Act.	Growth	E/P	B/P	Earn. Var.	Finl.	For. Inc.	Labor Int.	Div. Yld.	Mo. T/O	Eq. Alloc.
<b>Alliance Capital</b>															
Minimum	1.14	0.17	0.10	0.22	0.26	0.38	-0.24	-0.49	-0.02	0.01	-0.26	0.15	-0.81	0.77	92%
Average	1.19	0.36	0.35	0.31	0.37	0.64	-0.07	-0.39	0.08	0.14	-0.05	0.26	-0.66	3.66	97%
Maximum	1.25	0.54	0.57	0.46	0.55	0.77	0.11	-0.26	0.28	0.28	0.22	0.42	-0.40	10.03	100%
Bmrk. Avg.	1.12	0.24	0.15	-0.06	0.15	0.43	-0.07	-0.30	-0.06	0.01	-0.07	0.36	-0.50	N.A.	95%
<b>Brinson Partners*</b>															
Minimum	1.01	-0.01	-0.32	-0.54	0.13	-0.01	-0.25	0.09	0.18	0.09	-0.39	0.04	-0.32	0.71	94%
Average	1.04	0.13	-0.14	-0.46	0.24	0.11	0.04	0.20	0.35	0.25	-0.18	0.13	-0.15	3.84	97%
Maximum	1.09	0.31	0.01	-0.37	0.52	0.29	0.29	0.28	0.60	0.42	0.01	0.18	-0.03	7.53	99%
Bmrk. Avg.	1.01	0.14	-0.10	-0.51	0.15	0.05	-0.01	0.15	0.16	-0.08	-0.26	0.04	-0.04	N.A.	98%
<b>Forstmann Leff</b>															
Minimum	1.04	0.11	-0.28	-1.31	0.07	0.12	-0.43	-0.11	0.13	-0.15	-0.54	-0.37	-0.81	1.62	64%
Average	1.13	0.55	0.16	-0.77	0.46	0.41	-0.07	0.16	0.40	0.14	-0.21	-0.06	-0.57	7.73	90%
Maximum	1.25	1.08	0.70	-0.29	0.86	0.83	0.16	0.50	0.68	0.40	0.04	0.23	-0.33	16.96	99%
Bmrk. Avg.	1.14	0.54	0.07	-0.68	0.52	0.38	-0.05	-0.02	0.23	-0.04	-0.24	0.16	-0.37	N.A.	90%
<b>Franklin Portfolio</b>															
Minimum	1.01	0.10	0.04	-0.58	0.01	-0.12	0.16	0.01	0.00	-0.23	-0.62	-0.25	-0.27	0.54	95%
Average	1.04	0.20	0.17	-0.39	0.18	0.06	0.33	0.15	0.15	-0.10	-0.34	0.03	-0.09	7.78	99%
Maximum	1.07	0.30	0.32	-0.23	0.32	0.17	0.46	0.34	0.39	0.03	-0.01	0.17	0.12	21.79	100%
Bmrk. Avg.	1.03	0.15	0.00	-0.40	0.15	0.07	0.01	0.05	0.09	-0.05	-0.26	0.06	-0.09	N.A.	97%
<b>GeoCapital Corp.</b>															
Minimum	1.03	0.62	0.04	-2.27	0.17	0.78	-0.50	-0.42	0.19	-0.32	-0.71	0.29	-1.03	0.19	88%
Average	1.17	0.99	0.36	-2.13	0.49	0.95	-0.37	-0.25	0.37	0.06	-0.61	0.43	-0.88	2.36	97%
Maximum	1.28	1.38	0.91	-1.95	0.91	1.13	-0.24	-0.05	0.52	0.61	-0.51	0.60	-0.63	9.05	100%
Bmrk. Avg.	1.23	1.25	0.66	-2.08	0.81	1.21	-0.52	-0.30	0.55	-0.03	-0.49	0.50	-1.03	N.A.	98%

Bmrk. Avg. = Benchmark average.

\* Manager retained as of 7/1/93. Data covers period from 7/1/93-6/30/96 only.



EXTERNAL ACTIVE STOCK MANAGERS

Risk Factor Exposures Con't.  
July 1991-June 1996

	Beta	Var. Mkts.	Suc.	Size	Trad. Act.	Growth	E/P	B/P	Earn. Var.	Finl.	For. Inc.	Labor Int.	Div. Yld.	Mo. T/O	Eq. Alloc.
<b>Investment Advisers*</b>															
Minimum	0.96	0.01	0.02	-1.93	-0.20	0.27	-0.20	-0.24	-0.18	-0.41	-0.62	0.31	-0.88	3.89	77%
Average	1.02	0.28	0.30	-1.44	0.03	0.49	-0.04	-0.13	0.04	-0.21	-0.41	0.53	-0.57	10.36	86%
Maximum	1.10	0.66	0.76	-0.95	0.35	0.72	0.12	-0.05	0.32	0.01	-0.12	0.67	-0.35	32.00	96%
Bmrk. Avg.	1.00	0.12	0.02	-0.78	-0.07	0.19	-0.02	0.02	0.04	-0.09	-0.37	0.25	-0.21	N.A.	95%
<b>IDS Advisory</b>															
Minimum	1.06	-0.03	0.01	-0.24	0.11	-0.01	-0.28	-0.18	-0.10	-0.21	-0.33	-0.11	-0.54	0.00	81%
Average	1.11	0.22	0.22	0.20	0.32	0.21	-0.01	-0.03	0.19	0.03	-0.02	0.05	-0.28	5.62	91%
Maximum	1.19	0.61	0.63	0.51	0.54	0.42	0.35	0.14	0.34	0.29	0.27	0.35	-0.09	15.07	100%
Bmrk. Avg.	1.07	0.11	0.10	0.11	0.18	0.13	-0.02	-0.07	0.04	0.06	0.09	0.14	-0.16	N.A.	94%
<b>Independence Investment Associates**</b>															
Minimum	0.99	-0.17	-0.09	0.21	-0.04	-0.22	0.04	-0.04	-0.10	0.03	-0.29	-0.14	0.05	0.00	97%
Average	1.01	-0.08	0.01	0.29	0.04	-0.16	0.13	0.03	0.00	0.13	-0.01	-0.04	0.13	5.40	99%
Maximum	1.02	-0.02	0.12	0.36	0.12	-0.11	0.21	0.10	0.07	0.22	0.13	0.05	0.20	14.39	100%
Bmrk. Avg.	1.00	-0.09	-0.05	0.32	-0.01	-0.09	0.02	-0.01	-0.03	0.06	0.06	-0.04	0.07	N.A.	99%
<b>Jundt Associates*</b>															
Minimum	1.22	0.99	0.32	-1.14	0.72	1.09	-0.90	-0.79	0.24	-0.59	-0.49	0.18	-1.20	0.06	63%
Average	1.28	1.15	0.82	-1.01	0.90	1.25	-0.68	-0.65	0.33	-0.37	-0.24	0.35	-1.05	4.84	87%
Maximum	1.35	1.31	1.40	-0.81	1.13	1.37	-0.44	-0.49	0.42	-0.24	0.02	0.47	-0.86	20.16	99%
Bmrk. Avg.	1.19	0.67	0.48	-0.57	0.60	0.69	-0.28	-0.37	0.10	-0.12	0.06	0.47	-0.68	N.A.	92%
<b>Lincoln Capital Management*</b>															
Minimum	1.08	-0.16	-0.19	0.39	-0.19	0.13	-0.26	-0.45	-0.45	-0.06	0.05	0.30	-0.51	1.17	84%
Average	1.10	-0.03	0.10	0.53	-0.06	0.22	-0.08	-0.39	-0.39	0.05	0.32	0.36	-0.38	4.08	95%
Maximum	1.12	0.19	0.30	0.69	0.07	0.34	0.11	-0.27	-0.24	0.13	0.66	0.40	-0.25	10.50	99%
Bmrk. Avg.	1.11	0.15	0.07	0.09	0.09	0.36	-0.14	-0.35	-0.25	-0.03	0.09	0.38	-0.41	N.A.	95%

Bmrk. Avg. = Benchmark average.

\* Manager retained as of 7/1/93. Data covers period from 7/1/93-6/30/96 only.

\*\* Manager retained as of 2/1/92. Data covers period from 2/1/92-6/30/96 only.

EXTERNAL ACTIVE STOCK MANAGERS

Risk Factor Exposures Con't.  
July 1991-June 1996

	Beta	Var. Mkts.	Suc.	Size	Trad. Act.	Growth	E/P	B/P	Earn. Var.	Finl.	For. Inc.	Labor Int.	Div. Yld.	Mo. T/O	Eq. Alloc.
<b>Oppenheimer Capital*</b>															
Minimum	1.03	-0.12	-0.12	-0.08	0.03	-0.12	0.27	-0.08	-0.23	0.03	-0.04	0.20	-0.22	0.16	86%
Average	1.05	0.00	0.02	0.02	0.09	-0.04	0.34	0.02	-0.11	0.14	0.09	0.29	-0.12	1.99	92%
Maximum	1.07	0.12	0.23	0.15	0.23	0.05	0.42	0.06	0.09	0.23	0.32	0.36	-0.05	6.27	97%
Bmrk. Avg.	0.99	-0.09	-0.08	-0.02	-0.04	-0.11	0.11	0.04	-0.09	-0.05	-0.15	0.05	0.05	N.A.	95%
<b>Waddell &amp; Reed</b>															
Minimum	0.99	0.36	0.11	-1.32	0.36	0.52	-0.50	-0.26	0.26	-0.38	-0.50	0.08	-0.95	0.52	48%
Average	1.21	0.84	0.54	-0.84	0.70	0.80	-0.17	-0.12	0.46	-0.04	-0.18	0.34	-0.78	9.75	79%
Maximum	1.31	1.25	1.04	-0.39	1.00	1.05	0.37	0.14	0.69	0.34	0.61	0.51	-0.57	27.52	97%
Bmrk. Avg.	1.15	0.74	0.07	-1.49	0.50	0.62	-0.25	0.10	0.46	0.02	-0.30	0.34	-0.62	N.A.	92%
<b>Weiss Peck &amp; Greer*</b>															
Minimum	1.16	1.23	-0.02	-2.59	0.71	1.15	-0.87	-0.32	0.62	-0.31	-0.55	0.35	-1.17	4.43	95%
Average	1.21	1.36	0.41	-2.46	0.90	1.25	-0.62	-0.20	0.71	-0.24	-0.37	0.48	-1.01	9.12	98%
Maximum	1.30	1.50	0.97	-1.88	1.11	1.37	-0.41	-0.08	0.85	-0.15	-0.24	0.60	-0.84	33.92	100%
Bmrk. Avg.	1.24	1.38	0.54	-2.19	0.86	1.29	-0.53	-0.22	0.71	-0.07	-0.45	0.42	-1.06	N.A.	97%
<b>Aggregate</b>															
Minimum	1.13	0.30	0.11	-0.54	0.28	0.38	-0.16	-0.21	0.10	-0.07	-0.32	0.14	-0.67	N.A.	N.A.
Average	1.17	0.45	0.28	-0.41	0.39	0.48	-0.06	-0.13	0.21	0.05	-0.16	0.20	-0.51	N.A.	N.A.
Maximum	1.21	0.73	0.60	-0.31	0.58	0.64	0.08	-0.05	0.28	0.16	-0.01	0.27	-0.38	N.A.	N.A.

Bmrk. Avg. = Benchmark average.

Aggregate includes data only for active managers retained on 6/30/95.

\* Manager retained as of 7/1/93. Data covers period from 7/1/93-6/30/96 only.



## Statistical Data

### EXTERNAL EMERGING STOCK MANAGERS

#### Risk Factor Exposures April 1994-June 1996

	Beta	Var. Mkts.	Suc.	Size	Trad. Act.	Growth	E/P	B/P	Earn. Var.	Finl.	For. Inc.	Labor Int.	Div. Yld.	Mo. T/O	Eq. Alloc.
<b>CIC Asset Management</b>															
Minimum	0.93	-0.25	-0.36	-0.37	-0.16	-0.38	0.21	0.07	-0.16	-0.19	-0.32	-0.24	0.18	2.87	91%
Average	0.99	-0.20	-0.22	0.13	-0.08	-0.29	0.33	0.19	-0.08	0.00	-0.19	0.01	0.28	7.77	94%
Maximum	1.02	-0.11	-0.10	0.26	0.10	-0.19	0.47	0.41	0.11	0.12	-0.02	0.20	0.37	18.06	98%
<b>Cohen, Klingenstein &amp; Marks</b>															
Minimum	1.09	0.19	0.03	-0.50	0.36	0.14	0.12	-0.33	0.09	0.02	-0.14	0.14	-0.32	0.00	90%
Average	1.13	0.36	0.15	-0.44	0.55	0.26	0.21	-0.24	0.18	0.12	0.02	0.37	-0.27	3.31	97%
Maximum	1.18	0.50	0.34	-0.37	0.87	0.47	0.30	-0.15	0.34	0.21	0.22	0.48	-0.22	15.86	99%
<b>Compass Capital</b>															
Minimum	1.00	-0.12	-0.27	-0.41	-0.28	0.05	-0.27	-0.34	-0.51	-0.40	-0.12	0.41	-0.32	0.00	93%
Average	1.04	0.01	-0.17	-0.37	-0.19	0.12	-0.15	-0.30	-0.43	-0.33	0.04	0.52	-0.27	2.23	98%
Maximum	1.08	0.20	-0.03	-0.31	-0.12	0.16	0.04	-0.24	-0.32	-0.29	0.15	0.62	-0.19	5.54	100%
<b>Kennedy Capital</b>															
Minimum	0.82	0.15	-0.42	-3.46	-0.44	-0.09	0.04	0.32	0.43	-0.23	-0.82	0.23	-0.26	1.69	37%
Average	0.86	0.35	-0.13	-3.27	-0.33	0.15	0.43	0.62	0.62	-0.13	-0.74	0.35	-0.09	8.02	92%
Maximum	0.94	0.61	0.12	-3.05	-0.21	0.51	0.69	0.78	0.85	0.05	-0.66	0.44	0.08	44.27	98%
<b>New Amsterdam</b>															
Minimum	1.02	0.18	-0.31	-1.29	-0.05	0.18	-0.06	-0.10	-0.23	-0.30	-0.60	0.04	-0.44	0.00	96%
Average	1.05	0.31	-0.10	-1.04	0.15	0.24	0.11	0.11	-0.17	-0.14	-0.45	0.12	-0.37	3.44	98%
Maximum	1.09	0.52	0.09	-0.76	0.32	0.33	0.32	0.30	-0.12	0.05	-0.25	0.19	-0.32	9.60	99%
<b>Valenzuela Capital</b>															
Minimum	1.01	0.04	-0.16	-1.06	-0.04	0.01	-0.25	-0.05	-0.06	-0.20	-0.53	0.37	-0.40	0.00	86%
Average	1.03	0.13	-0.04	-0.91	0.14	0.12	-0.10	0.03	0.06	-0.02	-0.17	0.49	-0.30	6.21	91%
Maximum	1.06	0.22	0.08	-0.78	0.23	0.24	0.03	0.11	0.19	0.12	0.08	0.62	-0.24	9.88	94%
<b>Wilke Thompson</b>															
Minimum	1.07	0.85	0.17	-2.72	0.33	1.07	-0.71	-0.46	-0.01	-0.70	-0.70	0.46	-1.14	0.00	94%
Average	1.12	1.01	0.68	-2.56	0.52	1.15	-0.56	-0.36	0.16	-0.60	-0.56	0.51	-1.03	3.28	97%
Maximum	1.15	1.17	1.10	-2.48	0.69	1.23	-0.40	-0.22	0.32	-0.52	-0.36	0.56	-0.91	7.85	100%

## Statistical Data

### EXTERNAL EMERGING STOCK MANAGERS

#### Risk Factor Exposures Con't. April 1994-June 1996

	Beta	Var. Mkts.	Suc.	Size	Trad. Act.	Growth	E/P	B/P	Earn. Var.	Finl.	For. Inc.	Labor Int.	Div. Yld.	Mo. T/O	Eq. Alloc.
<b>Winslow Capital</b>															
Minimum	1.16	0.51	0.16	-0.57	0.42	0.82	-0.56	-0.67	0.01	-0.32	-0.30	0.24	-1.02	1.44	95%
Average	1.22	0.73	0.47	-0.40	0.55	0.91	-0.43	-0.53	0.10	-0.19	-0.07	0.34	-0.86	5.16	98%
Maximum	1.26	0.87	0.86	-0.28	0.68	1.07	-0.21	-0.42	0.18	-0.02	0.17	0.45	-0.74	10.76	100%
<b>Zevenbergen Capital</b>															
Minimum	1.12	0.27	-0.14	-0.70	0.23	0.50	-0.62	-0.49	-0.02	-0.13	-0.29	0.22	-0.89	0.70	68%
Average	1.17	0.53	0.19	-0.32	0.34	0.75	-0.47	-0.35	0.13	0.03	-0.10	0.32	-0.71	9.29	96%
Maximum	1.24	0.83	0.60	0.01	0.48	0.95	-0.33	-0.16	0.27	0.21	0.09	0.50	-0.49	25.50	100%
<b>Aggregate Emerging Managers</b>															
Minimum	1.05	0.32	0.02	-1.11	0.17	0.35	-0.16	-0.18	-0.03	-0.18	-0.29	0.27	-0.50	3.50	85%
Average	1.07	0.37	0.10	-0.97	0.20	0.39	-0.08	-0.12	0.05	-0.14	-0.23	0.34	-0.41	5.22	96%
Maximum	1.10	0.45	0.24	-0.90	0.25	0.44	0.03	-0.06	0.14	-0.10	-0.19	0.39	-0.36	8.85	98%

Aggregate includes data only for managers retained on 6/30/96.



## Statistical Data

### EXTERNAL ACTIVE STOCK MANAGERS

#### Sector Weights Actual Portfolio Less Benchmark Portfolio July 1991-June 1996

	Cons. Non Dur.	Cons. Dur.	Basic Mat.	Cap. Goods	Energy	Tech.	Trans.	Util.	Finl.
<b>Alliance Capital</b>									
Minimum	-11.46	-4.03	-5.79	-4.14	-2.32	-5.05	-2.65	-2.47	0.61
Average	-3.30	-1.76	-4.30	-2.33	-1.29	2.21	1.37	0.07	9.33
Maximum	9.03	0.54	-2.65	0.61	0.93	7.50	5.10	1.60	16.72
Bmrk. Avg.	52.47	4.42	6.07	6.17	1.50	10.84	2.13	3.28	13.13
<b>Brinson Partners*</b>									
Minimum	-6.66	-2.50	-1.29	-2.14	-2.62	-7.08	-0.39	-7.48	1.59
Average	0.52	-0.55	0.57	-0.10	-1.36	-1.15	2.42	-4.81	4.44
Maximum	6.39	1.82	3.29	2.66	0.36	2.58	7.08	-2.28	7.45
Bmrk. Avg.	34.32	3.62	8.56	7.66	5.78	8.90	2.30	12.63	16.24
<b>Forstmann Leff</b>									
Minimum	-19.65	-8.91	-7.36	-5.27	-3.28	-7.87	-1.64	-8.97	-9.83
Average	2.32	-0.17	-0.36	-2.07	3.66	-3.51	1.56	-2.62	1.19
Maximum	28.98	9.10	8.09	3.79	8.49	3.27	6.41	5.79	9.82
Bmrk. Avg.	41.01	6.20	8.17	6.20	5.94	8.48	3.18	8.05	12.76
<b>Franklin Portfolio</b>									
Minimum	-14.06	-2.99	-8.15	-4.95	-3.05	-1.26	-2.60	-2.26	-2.03
Average	-1.98	0.64	-2.96	-2.06	0.36	2.53	0.16	0.70	2.61
Maximum	5.63	4.08	2.89	1.65	3.41	5.62	1.85	4.62	7.42
Bmrk. Avg.	33.38	4.88	10.47	6.52	5.95	7.98	2.43	11.41	16.99
<b>GeoCapital Corp.</b>									
Minimum	-6.37	-1.43	-1.64	-8.25	-4.15	-23.15	-2.26	-5.89	-0.70
Average	4.91	0.43	0.28	-5.43	-1.51	-8.85	0.13	-1.80	11.83
Maximum	12.42	2.15	2.67	-2.19	0.00	-0.91	1.30	1.35	24.23
Bmrk. Avg.	58.52	1.34	2.55	5.77	1.53	13.46	0.81	4.21	11.81

Bmrk. Avg. = Benchmark average

\* Manager retained as of 7/1/93. Data covers period from 7/1/93-6/30/96 only.

**EXTERNAL ACTIVE STOCK MANAGERS**

**Sector Weights Con't.**  
**Actual Portfolio Less Benchmark Portfolio**  
**July 1991-June 1996**

	Cons. Non Dur.	Cons. Dur.	Basic Mat.	Cap. Goods	Energy	Tech.	Trans.	Util.	Finl.
<b>Investment Advisers*</b>									
Minimum	-9.61	-3.15	-4.98	-2.87	-2.22	-3.45	-3.27	-10.01	-9.06
Average	-3.30	1.61	0.91	4.60	-0.04	2.45	-0.13	-4.66	-1.70
Maximum	4.17	5.38	5.30	11.69	2.32	10.76	5.33	3.82	6.58
Bmrk. Avg.	38.24	4.70	8.70	11.08	2.77	5.97	2.73	8.97	16.84
<b>IDS Advisory</b>									
Minimum	-22.11	-3.23	0.65	-2.16	-1.90	-4.85	-0.93	-11.73	-6.42
Average	-15.45	2.52	5.22	1.47	2.70	0.35	3.74	-4.84	4.28
Maximum	2.04	8.99	9.87	4.85	7.12	9.05	8.75	1.16	14.97
Bmrk. Avg.	39.55	4.04	7.69	6.17	5.28	10.73	2.87	9.13	14.53
<b>Independence Investment Associates**</b>									
Minimum	-6.59	-1.58	-3.17	-1.05	-2.45	-3.70	-0.93	-5.81	1.65
Average	-2.78	1.07	-0.16	0.60	0.39	-0.60	0.21	-1.80	3.07
Maximum	-0.50	3.08	3.14	4.48	2.77	1.53	1.53	2.31	5.42
Bmrk. Avg.	35.54	4.45	8.38	6.71	8.01	7.25	1.87	14.10	13.70
<b>Jundt Associates*</b>									
Minimum	1.26	-4.23	-7.03	-4.05	-1.65	-11.96	-3.61	4.12	-8.26
Average	7.85	-2.88	-4.96	-1.43	-1.37	-2.66	-1.66	11.02	-3.92
Maximum	19.29	-2.08	-2.79	0.93	-0.82	7.12	-0.35	18.02	1.17
Bmrk. Avg.	58.75	2.90	4.96	3.80	1.39	17.90	1.66	1.96	6.68
<b>Lincoln Capital Management*</b>									
Minimum	-11.85	-1.26	-2.30	-2.60	-0.57	-4.70	-0.40	-4.16	-3.31
Average	-3.26	-0.38	-0.49	0.95	-0.33	1.33	0.26	-0.72	2.63
Maximum	7.29	0.16	1.63	4.36	-0.02	6.74	0.69	1.31	7.01
Bmrk. Avg.	62.40	2.08	3.78	5.22	0.38	8.97	0.29	4.25	12.62

Bmrk. Avg. = Benchmark average

\* Manager retained as of 7/1/93. Data covers period from 7/1/93-6/30/96 only.

\*\* Manager retained as of 2/1/92. Data covers period from 2/1/92-6/30/96 only.



**EXTERNAL ACTIVE STOCK MANAGERS**

**Sector Weights Con't.  
Actual Portfolio Less Benchmark Portfolio  
July 1991-June 1996**

	Cons. Non Dur.	Cons. Dur.	Basic Mat.	Cap. Goods	Energy	Tech.	Trans.	Util.	Finl.
<b>Oppenheimer Capital*</b>									
Minimum	-14.15	-1.82	-4.53	1.62	-5.81	-4.56	-2.85	-9.16	11.27
Average	-3.06	-0.29	-0.70	3.50	-4.42	-1.72	-1.85	-7.62	16.15
Maximum	6.75	1.27	4.03	6.17	-2.74	1.19	-0.33	-5.71	19.55
Bmrk. Avg.	35.11	4.25	10.26	6.81	6.37	5.72	2.55	11.38	17.55
<b>Waddell &amp; Reed</b>									
Minimum	-10.23	-6.20	-14.19	-9.60	-5.32	-9.74	-5.44	-1.97	-9.23
Average	3.42	-2.42	-5.19	-3.60	-2.47	2.88	0.13	1.17	6.09
Maximum	17.96	3.39	13.93	4.81	5.23	19.85	6.67	8.24	26.73
Bmrk. Avg.	39.75	6.66	12.99	8.63	5.08	13.58	3.77	2.10	7.45
<b>Weiss Peck &amp; Greer*</b>									
Minimum	-4.41	-1.41	-3.99	-8.81	-1.40	-8.80	0.15	-2.30	-1.78
Average	2.57	0.29	-1.25	-4.15	0.36	-1.44	2.89	-0.15	0.87
Maximum	9.67	2.59	1.77	-0.51	3.12	3.04	5.69	0.80	2.65
Bmrk. Avg.	49.62	4.41	5.92	8.48	3.80	14.99	3.00	2.76	7.02
<b>Aggregate</b>									
Minimum	-5.33	-2.11	-3.55	-2.86	-1.14	-3.30	-0.42	-2.92	0.77
Average	-0.80	-0.26	-1.70	-1.49	-0.03	-0.83	0.83	-1.27	5.55
Maximum	6.46	1.44	0.72	0.50	1.94	2.16	1.77	0.22	9.65

Bmrk. Avg. = Benchmark average

Aggregate includes data only for active managers retained on 6/30/95.

\* Manager retained as of 7/1/93. Data covers period from 7/1/93-6/30/96 only.

**EXTERNAL EMERGING STOCK MANAGERS**

**Sector Weights  
April 1994-June 1996**

	Cons. Non Dur.	Cons. Dur.	Basic Mat.	Cap. Goods	Energy	Tech.	Trans.	Util.	Finl.
<b>CIC Asset Management</b>									
Minimum	10.55	4.06	4.50	3.18	5.17	2.71	2.39	2.96	15.34
Average	21.46	8.74	9.31	9.75	7.28	5.41	3.72	9.66	24.67
Maximum	28.24	13.39	21.41	14.81	11.55	9.91	5.14	19.37	31.15
<b>Cohen, Klingenstein &amp; Marks</b>									
Minimum	34.26	6.06	4.40	0.00	0.00	2.69	0.00	0.00	15.91
Average	40.68	8.86	8.43	4.88	1.12	9.84	1.08	0.48	24.63
Maximum	45.40	13.05	13.24	8.31	4.03	17.91	3.14	3.43	30.95
<b>Compass Capital</b>									
Minimum	59.14	1.16	2.71	12.30	0.00	3.36	0.00	0.00	0.18
Average	65.42	2.90	8.05	16.21	0.00	4.05	0.00	0.00	3.37
Maximum	71.43	8.72	11.12	19.15	0.00	4.69	0.00	0.00	8.21
<b>Kennedy Capital</b>									
Minimum	23.18	4.29	8.93	15.72	2.48	3.09	0.00	1.86	10.29
Average	27.94	7.05	19.36	18.49	4.27	5.12	0.19	3.43	14.14
Maximum	36.55	10.13	23.09	24.31	6.07	7.24	0.69	6.27	20.34
<b>New Amsterdam</b>									
Minimum	32.86	5.62	6.79	0.00	3.20	6.41	2.11	6.62	13.95
Average	37.15	10.05	8.46	1.05	5.72	10.85	2.45	8.81	15.47
Maximum	43.46	15.05	10.71	3.44	6.74	13.85	2.92	11.22	18.65
<b>Valenzuela Capital</b>									
Minimum	33.77	0.00	6.59	5.70	4.38	2.84	0.00	0.00	12.64
Average	38.72	3.07	11.98	13.71	6.78	4.09	1.52	2.06	18.06
Maximum	46.27	7.66	15.95	18.36	9.38	5.78	8.65	5.27	28.85
<b>Wilke Thompson</b>									
Minimum	64.68	0.84	0.00	1.39	0.00	7.57	0.00	0.00	0.00
Average	80.35	3.02	3.09	3.43	0.00	8.91	0.00	0.00	1.20
Maximum	88.47	9.22	7.07	6.37	0.00	12.21	0.00	0.00	4.42



**EXTERNAL EMERGING STOCK MANAGERS**

**Sector Weights Con't.  
April 1994-June 1996**

	Cons. Non Dur.	Cons. Dur.	Basic Mat.	Cap. Goods	Energy	Tech.	Trans.	Util.	Finl.
<b>Winslow Capital</b>									
Minimum	52.24	0.00	0.00	0.73	0.00	8.86	1.21	5.87	1.73
Average	62.96	0.91	0.08	3.75	0.00	14.56	2.12	8.92	6.71
Maximum	69.28	3.45	0.39	7.32	0.00	22.38	3.98	11.84	17.18
<b>Zevenbergen Capital</b>									
Minimum	42.91	0.22	0.07	2.19	0.27	7.53	0.00	2.70	1.16
Average	58.52	2.73	1.31	5.93	1.45	11.70	1.35	9.50	7.52
Maximum	67.67	7.02	3.90	12.63	3.45	15.49	4.44	12.90	16.81
<b>Aggregate Emerging Managers</b>									
Minimum	44.85	3.38	6.23	6.51	2.08	6.79	0.88	4.23	9.96
Average	48.98	5.22	7.47	8.30	2.83	8.40	1.39	4.70	12.72
Maximum	51.76	8.38	9.21	9.73	3.46	10.96	2.62	5.14	14.59

Aggregate includes data only for managers retained on 6/30/96.

**EXTERNAL SEMI-PASSIVE STOCK MANAGERS**

**Risk Factor Exposures  
January 1995-June 1996**

	Beta	Var. Mkts.	Suc.	Size	Trad. Act.	Growth	E/P	B/P	Earn. Var.	Finl.	For. Inc.	Labor Int.	Div. Yld.	Mo. T/O	Eq. Alloc.
<b>Barclays Global Investors</b>															
Minimum	0.91	-0.20	-0.08	-0.21	-0.22	-0.30	0.09	0.19	-0.02	-0.04	-0.23	-0.26	0.18	2.71	99%
Average	0.93	-0.15	0.00	-0.16	-0.19	-0.23	0.21	0.26	0.02	0.00	-0.19	-0.18	0.21	5.10	99%
Maximum	0.94	-0.12	0.05	-0.13	-0.17	-0.17	0.27	0.32	0.06	0.05	-0.15	-0.14	0.28	11.48	100%
<b>Franklin Portfolio Associates</b>															
Minimum	0.92	-0.23	-0.14	-0.16	-0.27	-0.29	0.14	0.20	0.00	-0.01	-0.22	-0.24	0.21	3.05	99%
Average	0.93	-0.18	-0.09	-0.12	-0.22	-0.23	0.24	0.26	0.02	0.02	-0.19	-0.19	0.24	5.62	100%
Maximum	0.95	-0.12	-0.03	-0.07	-0.18	-0.20	0.32	0.34	0.05	0.06	-0.13	-0.14	0.27	8.56	100%
<b>J.P. Morgan</b>															
Minimum	0.91	-0.27	-0.20	-0.13	-0.29	-0.30	0.10	0.17	-0.05	-0.01	-0.25	-0.20	0.21	0.68	99%
Average	0.92	-0.22	-0.16	-0.09	-0.24	-0.23	0.13	0.19	-0.01	0.03	-0.21	-0.18	0.24	5.73	100%
Maximum	0.94	-0.16	-0.12	-0.03	-0.22	-0.18	0.17	0.23	0.02	0.06	-0.17	-0.16	0.30	9.38	100%
<b>Aggregate Semi-Passive Equity</b>															
Minimum	0.92	-0.21	-0.11	-0.16	-0.25	-0.29	0.11	0.19	-0.02	-0.01	-0.23	-0.23	0.21	N.A.	N.A.
Average	0.93	-0.18	-0.08	-0.12	-0.22	-0.23	0.18	0.23	0.01	0.02	-0.19	-0.18	0.23	N.A.	N.A.
Maximum	0.94	-0.13	-0.05	-0.10	-0.20	-0.18	0.23	0.29	0.03	0.05	-0.15	-0.15	0.27	N.A.	N.A.
<b>Benchmark Average*</b>															
	0.92	-0.23	-0.16	-0.11	-0.29	-0.23	0.11	0.19	-0.02	0.05	-0.18	-0.17	0.25	N.A.	99.5%

\* All semi-passive managers use the same benchmark.



## Statistical Data

### EXTERNAL SEMI-PASSIVE STOCK MANAGERS

#### Sector Weights Actual Portfolio Less Benchmark Portfolio January 1995-June 1996

	Cons. Non Dur.	Cons. Dur.	Basic Mat.	Cap. Goods	Energy	Tech.	Trans.	Util.	Finl.
<b>Barclays Global Investors</b>									
Minimum	-2.12	-0.72	-1.18	-0.85	-0.98	-1.38	-1.23	-0.65	-1.45
Average	-1.04	0.00	0.73	0.18	-0.22	-0.05	-0.87	0.31	0.95
Maximum	-0.09	1.22	2.07	1.14	0.55	0.95	-0.47	1.70	3.42
<b>Franklin Portfolio Associates</b>									
Minimum	-0.74	-1.24	-0.02	-1.77	-0.73	-1.04	-1.75	-0.21	-1.83
Average	0.58	-0.44	1.49	-0.25	-0.17	-0.25	-1.24	0.61	-0.33
Maximum	2.09	0.88	2.53	0.61	0.34	0.37	-0.81	1.26	1.02
<b>J.P. Morgan</b>									
Minimum	-0.70	0.04	-0.57	-0.60	-0.39	-0.70	-0.31	-0.69	-1.25
Average	-0.20	0.39	-0.21	-0.01	0.03	-0.01	-0.05	0.27	-0.22
Maximum	1.22	0.89	0.16	0.45	0.39	0.52	0.10	0.83	0.87
<b>Aggregate Semi-Passive Equity</b>									
Minimum	-0.55	-0.54	-0.47	-0.66	-0.50	-0.55	-1.06	-0.15	-1.29
Average	-0.23	-0.01	0.66	-0.02	-0.12	-0.10	-0.71	0.39	0.14
Maximum	1.02	0.87	1.48	0.36	0.25	0.19	-0.49	1.09	1.12
<b>Benchmark Average*</b>	27.37	3.67	9.07	7.64	7.90	4.76	1.91	17.23	20.44

\* All semi-passive managers use the same benchmark.

## Statistical Data

### EXTERNAL DOMESTIC STOCK MANAGERS

#### Quarterly Performance

July 1991-June 1996

	Alliance		Brinson		Forstmann		Franklin		GeoCapital	
	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk
3Q91	10.0	5.9	Manager retained 3Q93.		11.1	5.1	5.7	6.1	17.9	10.3
4Q91	15.0	10.6			6.6	6.4	9.0	7.9	16.7	12.0
1Q92	-2.0	-3.6			-2.0	1.3	-1.7	-0.3	-3.0	-1.0
2Q92	-0.8	-1.2			-5.1	-0.9	0.3	0.4	-9.4	-9.7
3Q92	4.4	3.6			-0.4	2.1	3.9	3.7	-0.4	3.0
4Q92	9.6	10.0			12.3	7.9	9.3	9.2	16.1	18.8
1Q93	3.9	-1.0			1.0	3.3	8.5	4.9	-0.6	1.2
2Q93	-0.9	-3.1			-0.1	0.4	4.0	0.9	0.5	6.2
3Q93	5.4	2.4	2.6	4.0	6.0	2.0	5.1	4.3	10.8	9.4
4Q93	2.2	3.4	2.2	1.7	3.0	2.7	-1.2	1.8	4.5	3.5
1Q94	-4.5	-2.6	-3.4	-3.3	-3.0	-3.0	-2.2	-3.3	-2.9	-4.2
2Q94	-2.2	-1.5	2.8	-0.8	-4.6	-3.3	-1.3	-1.0	-6.9	-4.6
3Q94	4.0	5.2	5.4	5.5	4.6	8.8	4.4	5.5	8.0	14.0
4Q94	1.0	0.4	-3.4	-1.1	-3.3	-1.3	-0.3	-0.8	-2.2	-0.1
1Q95	8.0	8.9	9.4	9.5	10.4	8.7	9.7	9.7	8.5	10.9
2Q95	14.7	10.5	9.6	9.0	6.6	8.3	8.2	8.7	6.6	4.9
3Q95	9.7	8.6	9.5	8.0	8.2	9.0	11.3	8.7	12.2	16.8
4Q95	1.6	3.3	7.3	4.4	3.7	3.2	0.2	3.8	-0.1	5.6
1Q96	5.7	6.7	7.7	5.8	11.6	7.2	9.7	6.0	5.4	4.8
2Q96	4.3	4.0	3.3	3.1	5.5	3.0	1.2	2.9	7.2	5.7

## Statistical Data

### EXTERNAL DOMESTIC STOCK MANAGERS

#### Quarterly Performance Con't. July 1991-June 1996

	IAI		IDS		Independence		Jundt		Lincoln	
	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk
3Q91	Manager retained 3Q93.		5.6	5.3	Manager retained 1Q92.		Manager retained 3Q93.		Manager retained 3Q93.	
4Q91			10.9	8.1						
1Q92			-0.8	1.3						
2Q92			0.1	1.3						
3Q92			2.1	3.1						
4Q92			10.1	8.3						
1Q93			4.6	4.8						
2Q93			0.8	0.7						
3Q93	9.7	5.7	3.3	4.1	4.4	2.6	2.6	4.2	0.7	-0.5
4Q93	-0.2	0.9	2.9	1.8	1.4	1.9	1.1	3.0	3.3	3.3
1Q94	-2.0	-2.9	-2.6	-3.0	-3.9	-3.7	-1.0	-2.8	-3.1	-2.9
2Q94	-4.3	-0.2	-0.3	0.1	0.9	0.4	-8.2	-2.7	0.5	-0.2
3Q94	7.0	6.2	3.0	5.0	3.1	4.9	15.9	8.5	4.9	6.4
4Q94	0.4	0.3	0.9	0.4	-0.9	0.0	-0.2	1.2	1.9	1.3
1Q95	7.1	9.0	6.2	8.9	9.4	9.7	2.9	8.9	10.1	9.7
2Q95	8.3	8.1	9.9	10.4	9.7	9.6	6.1	11.2	11.1	9.6
3Q95	7.3	8.8	8.2	8.2	9.8	8.1	10.8	9.1	7.8	7.8
4Q95	7.0	4.5	8.1	5.0	4.6	5.9	-2.3	1.2	7.2	5.7
1Q96	4.2	5.1	3.1	5.8	5.0	5.8	3.4	2.7	6.8	5.3
2Q96	5.5	3.0	3.3	4.7	4.5	4.5	9.3	6.2	7.1	6.7

\* Manager retained 2/92. Therefore, only 2 months of return data are available for this quarter.



## Statistical Data

### EXTERNAL DOMESTIC STOCK MANAGERS

#### Quarterly Performance Con't. July 1991-June 1996

	Oppenheimer		Waddell & Reed		Weiss Peck & Greer		Emerging		Barclays (S/P)	
	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk
3Q91	Oppenheimer Manager retained 3Q93.		6.6	5.4	Weiss Peck & Greer Manager retained 3Q93.		Emerging Manager group retained 2Q94.		Barclays (S/P) Manager retained 1Q95	
4Q91			5.3	5.4						
1Q92			3.4	3.6						
2Q92			-3.1	-3.4						
3Q92			4.7	2.3						
4Q92			9.4	9.9						
1Q93			1.9	3.6						
2Q93			6.2	1.9						
3Q93	4.4	3.5	6.1	6.4	8.7	8.2				
4Q93	0.7	0.8	-0.8	4.5	-1.8	1.7				
1Q94	-2.8	-2.7	1.7	-1.4	-4.3	-3.4				
2Q94	0.6	0.4	-4.4	-3.5	-10.8	-7.1	-2.1	-0.8		
3Q94	4.2	4.2	5.3	7.9	12.1	10.6	6.0	7.8		
4Q94	-1.3	-0.7	-1.3	-1.4	-3.3	-0.4	0.0	0.4		
1Q95	12.0	9.5	5.5	7.9	6.2	9.0	7.5	7.7	9.1	9.1
2Q95	11.1	8.0	10.0	10.1	9.7	11.8	9.0	9.8	9.3	8.1
3Q95	9.5	8.0	9.9	8.9	13.4	13.6	8.5	10.2	10.3	8.6
4Q95	4.9	5.8	0.3	2.2	5.8	0.1	2.4	4.4	6.3	6.1
1Q96	8.0	6.3	4.7	6.8	8.9	4.3	7.0	5.3	5.2	5.1
2Q96	3.1	3.1	0.9	1.7	8.6	4.1	4.2	4.7	4.0	4.0

## Statistical Data

### EXTERNAL DOMESTIC STOCK MANAGERS

#### Quarterly Performance Con't. July 1991-June 1996

	Franklin (S/P)		J.P. Morgan (S/P)		Barclays (Passive)		Aggregate*	Mkt. Index	
	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk		W5000	W5000 Adj.**
	Manager retained 1Q95.		Manager retained 1Q95		Manager retained 3Q95		6.7	6.4	6.2
3Q91									
4Q91							9.0	8.7	8.5
1Q92							-1.1	-1.3	-1.1
2Q92							-0.6	-0.1	0.0
3Q92							2.5	3.1	3.1 <sup>4</sup>
4Q92							8.0	7.3	7.2
1Q93							4.4	4.3	4.1
2Q93							0.6	0.8	0.7
3Q93							4.1	4.0	3.7
4Q93							1.4	1.8	2.0
1Q94							-3.5	-3.7	-3.7
2Q94							-1.1	-0.8	-0.8
3Q94							5.1	5.4	5.4
4Q94							-1.1	-0.8	-0.8
1Q95	8.7	9.1	9.1	9.1			8.5	9.0	9.0
2Q95	8.2	8.1	8.5	8.1			9.0	9.3	9.3
3Q95	9.1	8.6	8.7	8.6	8.5	8.5	9.2	9.1	9.1
4Q95	5.4	6.1	6.4	6.1	4.9	4.9	4.5	4.9	4.9
1Q96	6.0	5.1	5.4	5.1	5.6	5.6	5.9	5.6	5.6
2Q96	2.7	4.0	3.8	4.0	4.4	4.4	4.2	4.4	4.4

\* Aggregate performance numbers include returns of any managers retained during the time period shown but subsequently terminated by the Board.

\*\* Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and AHP restriction through 10/31/93.

**EXTERNAL DOMESTIC STOCK MANAGERS**

**Annualized Performance Summary  
Periods Ending June 30, 1996**

	1 Year		3 Years		5 Years	
	Actual	Benchmark	Actual	Benchmark	Actual	Benchmark
<b>Active Managers</b>						
Alliance	23.0%	24.4%	17.2%	17.1%	18.4%	14.4%
Brinson	30.8	22.9	18.5	15.8		
Forstmann Leff	32.1	24.3	16.7	15.6	14.5	14.7
Franklin	23.8	23.1	15.3	15.9	17.4	16.4
GeoCapital	26.7	36.7	17.4	23.3	17.8	22.2
IAI	26.3	23.1	17.4	16.9		
IDS Advisory	24.5	25.7	15.9	17.9	16.5	17.7
Independence	26.1	26.6	16.6	17.3		
Jundt	22.4	20.5	13.4	17.6		
Lincoln	32.3	28.1	20.6	18.6		
Oppenheimer	28.0	25.2	19.0	16.0		
Waddell & Reed	16.4	20.8	12.8	17.4	14.9	16.4
Weiss Peck & Greer	41.9	23.4	17.7	17.9		
<b>Emerging Managers (1)</b>						
CIC Asset	27.6	24.8				
Cohen	25.0	20.7				
Compass Capital	24.2	27.2				
Kennedy Capital	35.5	26.3				
New Amsterdam	21.4	19.2				
Valenzuela Capital	23.7	23.6				
Wilke/Thompson	16.3	27.7				
Winslow Capital	19.2	22.2				
Zevenbergen Capital	23.6	23.6				
<b>Semi-Passive Managers (2)</b>						
Franklin	25.2	26.1				
J.P. Morgan	26.4	26.1				
Barclays Global	28.4	26.1				
<b>Passive Manager</b>						
Barclays Global	25.5	25.5				
<b>Aggregate (3)</b>	<b>25.9%</b>		<b>16.0%</b>		<b>11.5%</b>	
<b>Capital Markets Data</b>						
Wilshire 5000	26.2%	---	16.8%	---	16.1%	---
Wilshire 5000 Adj. (4)	26.2	---	16.7	---	16.0	---
91-Day Treasury Bills	5.4	---	4.7	---	4.4	---
Inflation	2.8	---	2.8	---	2.9	---

(1) Emerging Managers were retained on 4/1/94.

(2) Semi-Passive Managers were retained on 1/1/95. Data is for two quarters only.

(3) Aggregate of all domestic stock managers retained during the time period shown.

(4) Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and AHP restriction through 10/31/93.



## **Statistical Data**

### **Bond Manager Portfolio Characteristics Glossary**

The bond manager portfolio statistics glossary is designed to define terminology the State Board of Investment uses in evaluating a bond manager's investment philosophy, risk characteristics and performance data. The definitions refer to categories shown in the Portfolio Characteristics table that follows this glossary.

#### ***Average Quality Weightings (Avg. Qual.)***

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.

#### ***Bond Allocation (Bond Alloc.)***

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 (Cur. Yield)***

The annual interest payment produced by the manager's total portfolio stated as a percent of the portfolio's market value.

#### ***Duration***

A measure of the average life of the total portfolio. Duration is a weighted average maturity where 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.

#### ***Number of Issues (# of Issues)***

The number of different bond issues held in the manager's portfolio.

#### ***Quarterly Turnover (Qtr. T/O)***

The manager's total bond sales during the quarter divided by the average value of the manager's bond portfolio over the quarter.

#### ***Term to maturity (Term. to Mat.)***

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.

#### ***Yield to Maturity (Yield to Mat.)***

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.

**EXTERNAL ACTIVE BOND MANAGERS**

**Portfolio Characteristics**

**July 1991 - June 1996**

	<b>Qtr T/O</b>	<b>#Of Issues</b>	<b>Bond Alloc.</b>	<b>Coupon</b>	<b>Yield To Mat.</b>	<b>Avg. Qual.</b>	<b>Dur.</b>	<b>Term To Mat.</b>
<b>BEA Associates*</b>								
Minimum	91	54	90%	2.86%	6.00%	AAA	4.40 Yrs.	8.00 Yrs.
Average	164	116	95	7.33	7.03	AAA	4.85	8.51
Maximum	367	161	100	9.59	8.60	AAA	5.31	8.84
<b>IDS Advisory*</b>								
Minimum	0	21	76	6.01	5.88	AAA/AA	5.44	9.54
Average	11	30	92	6.97	6.58	AAA/AA	6.32	11.90
Maximum	35	53	100	7.81	7.15	AAA	7.87	14.94
<b>Investment Advisers</b>								
Minimum	2	17	87	5.41	5.57	AAA	3.68	6.70
Average	89	40	98	6.26	6.69	AAA	5.63	9.83
Maximum	185	71	100	7.28	7.60	AAA	6.90	13.80
<b>Miller Anderson</b>								
Minimum	18	60	91	4.70	6.00	AA+	4.50	9.67
Average	84	130	97	9.65	7.40	AAA	6.02	10.80
Maximum	206	231	100	21.08	8.61	AAA	7.00	13.88
<b>Standish, Ayer &amp; Wood*</b>								
Minimum	35	96	96	6.14	5.90	AAA-	4.43	8.10
Average	81	205	99	8.10	7.34	AAA	4.98	8.61
Maximum	257	283	100	10.72	8.25	AAA	5.70	9.02
<b>Western</b>								
Minimum	33	72	80	5.25	5.50	AA	5.20	8.74
Average	91	111	93	6.59	7.15	AA	5.56	13.80
Maximum	209	197	100	8.60	9.00	AAA	6.10	18.40
<b>Market Index**</b>								
Minimum				7.23	5.48	Agency	4.39	7.32
Average				7.81	6.79	Agency	4.64	8.63
Maximum				8.79	8.21	Agency	5.16	9.41

\* Manager retained as of 7/1/93. Data covers period from 7/1/93 - 6/30/96 only.

\*\* Salomon Broad Investment Grade Bond Index through 6/94. Lehman Brothers Aggregate Bond Index thereafter.

## Statistical Data

### EXTERNAL ACTIVE BOND MANAGERS

**Sector Weights**  
**July 1991 - June 1996**

	(In Percentages)										
	Treas	Agcy	Total Govt	Ind	Util	Fin	Tran	Total Corp	Mtgs	Misc	Cash
<b>BEA Associates*</b>											
Minimum	19	0	21	1	0	5	0	27	19	0	0
Average	28	2	30	5	3	7	0	35	33	0	5
Maximum	36	4	36	9	6	10	0	45	44	0	10
<b>IDS Advisory*</b>											
Minimum	42	6	56	4	5	6	0	19	0	0	0
Average	53	12	64	8	8	8	0	27	0	0	8
Maximum	62	17	76	15	10	10	0	37	0	0	24
<b>Investment Advisers</b>											
Minimum	25	0	35	0	0	0	0	0	14	0	0
Average	43	13	55	3	1	4	0	17	24	1	2
Maximum	58	23	81	8	3	7	0	31	34	20	13
<b>Miller Anderson</b>											
Minimum	1	0	1	4	0	5	0	12	34	0	0
Average	22	2	24	6	2	8	1	17	49	6	3
Maximum	38	7	44	10	5	14	2	23	65	10	9
<b>Standish, Ayer &amp; Wood*</b>											
Minimum	4	0	4	7	0	17	0	43	23	0	1
Average	12	1	13	13	0	21	0	50	35	3	1
Maximum	30	4	33	23	0	29	0	58	47	5	4
<b>Western</b>											
Minimum	6	6	12	18	3	1	0	29	17	3	0
Average	19	8	26	22	7	5	0	36	24	8	7
Maximum	29	12	36	26	11	11	0	42	42	17	20
<b>Market Index**</b>											
Minimum			52					17	28		
Average			53					18	29		
Maximum			54					19	30		

#### Abbreviations:

Treas	Treasuries	Fin	Financials
Agcy	Government agencies	Tran	Transportation
Ind	Industrials	Mtgs	Mortgages
Util	Utilities	Misc	Miscellaneous or other

\* Manager retained as of 7/1/93. Data covers period from 7/1/93 - 6/30/96 only.

\*\* Salomon Broad Investment Grade Bond Index through 6/94. Lehman Brothers Aggregate Bond Index thereafter.



**EXTERNAL SEMI-PASSIVE BOND MANAGERS**

**Portfolio Characteristics**

**As of June 30, 1996**

	<b>Qtr T/O</b>	<b>#Of Issues</b>	<b>Bond Alloc.</b>	<b>Coupon</b>	<b>Yield To Mat.</b>	<b>Avg. Qual.</b>	<b>Dur.</b>	<b>Term To Mat.</b>
<b>BlackRock</b>	523	666	89%	6.82%	7.01%	AA+	4.45 Yrs.	7.80 Yrs.
<b>Goldman</b>	257	275	100	6.00	7.00	AAA-	4.75	8.64
<b>Lincoln</b>	136	879	99	7.60	6.74	AAA	4.51	8.55
<b>Aggregate Average</b>	305	607	96	6.81	6.92	AAA-	4.57	8.33
<b>Lehman Agg.</b>	N/A	5,492	N/A	7.23	6.97	N/A	4.76	8.76

**EXTERNAL SEMI-PASSIVE BOND MANAGERS**

**Sector Weights**

**As of June 30, 1996**

	<b>(In Percentages)</b>										
	<b>Treas</b>	<b>Agcy</b>	<b>Total Govt</b>	<b>Ind</b>	<b>Util</b>	<b>Fin</b>	<b>Tran</b>	<b>Total Corp</b>	<b>Mtgs</b>	<b>Misc</b>	<b>Cash</b>
<b>BlackRock</b>	22	1	23	6	0	9	0	25	42	0	11
<b>Goldman</b>	21	5	26	15	0	13	0	39	34	0	1
<b>Lincoln</b>	33	11	44	5	3	5	0	23	33	0	1
<b>Aggregate Average</b>	25	6	31	9	1	9	0	29	36	0	4
<b>Lehman Agg.</b>	45	7	52	6	3	5	0	18	30	0	0

# Statistical Data

## EXTERNAL BOND MANAGERS

### Quarterly Performance July 1991-June 1996

	BEA		IDS		IAI		Miller Anderson		Standish	
	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk
3Q91	Manager retained 3Q93		Manager retained 3Q93		7.0	6.0	7.3	5.7	Manager retained 3Q93	
4Q91					6.0	5.0	7.2	5.0		
1Q92					-2.7	-1.2	-2.3	-1.2		
2Q92					4.4	4.1	4.1	4.1		
3Q92					5.9	4.3	4.1	4.3		
4Q92					0.2	0.3	1.3	0.3		
1Q93					5.3	4.2	4.5	4.2		
2Q93					3.8	2.8	3.9	2.8		
3Q93	3.0	2.6	4.3	3.4	3.7	2.6	3.5	2.6	3.0	2.6
4Q93	0.2	0.0	-0.9	-0.3	-0.6	0.0	-0.3	0.0	0.1	0.0
1Q94	-3.0	-2.8	-3.4	-3.1	-3.5	-2.8	-2.9	-2.8	-3.3	-2.8
2Q94	-1.4	-1.0	-1.1	-1.2	-1.7	-1.0	-2.0	-1.0	-1.2	-1.0
3Q94	-0.3	0.6	0.3	0.5	0.1	0.6	0.4	0.6	0.2	0.6
4Q94	1.3	0.4	0.8	0.4	1.2	0.4	0.1	0.4	0.3	0.4
1Q95	5.1	5.0	4.7	5.0	4.2	5.0	5.4	5.0	4.5	5.0
2Q95	6.9	6.1	7.1	6.4	4.6	6.1	6.1	6.1	5.9	6.1
3Q95	0.8	0.2	2.0	1.9	2.0	2.0	2.3	2.0	2.2	2.0
4Q95	4.1	4.3	5.4	4.6	4.4	4.3	4.1	4.3	4.2	4.3
1Q96	-1.3	-1.8	-3.2	-1.8	-2.0	-1.8	-1.0	-1.8	-1.5	-1.8
2Q96	0.9	0.6	-0.1	0.6	0.3	0.6	0.6	0.6	0.9	0.6

## Statistical Data

### EXTERNAL BOND MANAGERS

#### Quarterly Performance Con't. July 1991-June 1996

	Western		BlackRock		Goldman		Lincoln		Aggregate*	Mkt. Index**
	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk		
3Q91	6.3	5.8	Manager retained 2Q96		Manager retained 3Q93		5.6	5.7	6.0	5.7
4Q91	5.4	5.0					5.3	5.0	5.5	5.0
1Q92	-0.6	-1.2					-1.2	-1.2	-1.3	-1.2
2Q92	3.8	4.1					3.9	4.1	3.9	4.1
3Q92	4.0	4.3					4.5	4.3	4.4	4.3
4Q92	0.9	0.3					0.3	0.3	0.5	0.3
1Q93	5.2	4.2					4.3	4.2	4.6	4.2
2Q93	4.0	2.8					2.7	2.8	3.2	2.8
3Q93	3.9	2.6			2.8	2.6	2.6	2.6	3.2	2.6
4Q93	0.4	0.0			0.3	0.0	0.1	0.0	0.1	0.0
1Q94	-3.3	-2.8			-2.6	-2.8	-2.6	-2.8	-2.8	-2.8
2Q94	-2.1	-1.0			-0.9	-1.0	-1.1	-1.0	-1.5	-1.0
3Q94	0.9	0.6			0.5	0.6	0.6	0.6	0.7	0.6
4Q94	0.3	0.4			0.9	0.4	0.5	0.4	0.2	0.4
1Q95	5.8	5.0			4.9	5.0	5.3	5.0	5.0	5.0
2Q95	7.1	6.1			5.9	6.1	5.9	6.1	6.1	6.1
3Q95	2.4	2.0			2.1	2.0	1.9	2.0	2.1	2.0
4Q95	4.2	4.3			4.3	4.3	4.3	4.3	4.2	4.3
1Q96	-1.8	-1.8			-1.6	-1.8	-1.8	-1.8	-1.7	-1.8
2Q96	0.9	0.6	0.4	0.6	0.7	0.6	0.5	0.6	0.6	0.6

\* Aggregate performance numbers include returns of any managers retained during the time periods shown but subsequently terminated by the Board.

\*\* Customized benchmarks were used prior to 10/91 when the benchmark changed to the Salomon Broad Investment Grade Bond Index. The benchmark was changed to the Lehman Bros. Agg. Bond Index in 7/94.



## Statistical Data

### EXTERNAL BOND MANAGERS

#### Annualized Performance Summary Periods Ending June 30, 1996

	1 Year		3 Years		5 Years	
	Actual	Benchmark	Actual	Benchmark	Actual	Benchmark
<b>Active Managers</b>						
BEA Associates	4.5%	5.0%	5.4%	5.3%		
IDS Advisory (1)	4.0	5.3	5.2	5.4		
Investment Advisers	4.7	5.0	4.3	5.3	8.7	8.4
Miller Anderson	6.1	5.0	5.4	5.3	9.5	8.3
Standish Ayer & Wood	5.8	5.0	5.1	5.3		
Western	5.7	5.0	6.2	5.3	9.7	8.4
<b>Semi-Passive Managers</b>						
BlackRock (2)	0.4	0.6				
Goldman Sachs	5.5	5.0	5.8	5.3		
Lincoln Capital	5.0	5.0	5.4	5.3	8.4	8.3
<b>Aggregate (3)</b>	<b>5.3%</b>		<b>5.4%</b>		<b>8.8%</b>	
<b>Capital Markets Data</b>						
Lehman Aggregate (4)	5.0%	---	5.3%	---	8.3%	---
91 Day Treasury Bills	5.4	---	4.7	---	4.4	---
Inflation	2.8	---	2.8	---	2.9	---

(1) Prior to 1/1/96, manager had a government/corporate mandate only.

(2) BlackRock retained as of 4/1/96. Performance data is for 2 months only.

(3) Aggregate of all active and semi-passive managers retained during the time period shown.

(4) Lehman Brothers Aggregate Bond Index was used beginning 7/1/94. Prior to that time, the Salomon Broad Investment Grade Bond Index was used.

## Statistical Data

### EXTERNAL INTERNATIONAL STOCK MANAGERS

#### Quarterly Performance October 1992 - June 1996

	Baring	Brinson	Marathon	Rowe	Scudder	Templeton	State Street	Aggregate	Mkt. Index**
4Q92							-3.6	-3.8	-3.9
1Q93							11.9	11.9	11.9
2Q93	5.0	2.7					9.4	8.1	10.1
3Q93	6.6	4.7					7.1	6.8	6.7
4Q93	13.6	2.8	-0.3*	7.5*	4.9*	1.6*	0.9	4.0	0.9
1Q94	-3.6	-0.2	9.8	-2.5	-3.3	1.3	3.3	1.6	3.4
2Q94	3.7	2.9	5.4	0.9	1.6	0.3	5.4	4.0	5.2
3Q94	4.3	2.0	1.5	5.2	2.3	5.4	0.4	1.9	0.2
4Q94	-3.1	-1.3	-0.6	-3.5	-2.6	-3.0	-1.0	-1.7	-1.0
1Q95	-1.1	-3.0	-4.6	-0.8	-0.2	1.4	1.3	-0.1	1.9
2Q95	0.2	3.3	1.2	5.0	6.4	8.4	1.6	2.8	0.8
3Q95	6.8	10.3	6.9	4.8	6.7	4.6	3.8	5.2	4.2
4Q95	5.6	6.2	3.0	3.1	3.2	2.2	4.0	4.0	4.1
1Q96	3.7	3.3	4.4	5.0	6.5	4.8	2.9	3.6	2.9
2Q96	2.7	3.8	4.5	4.0	3.7	5.0	2.3	3.1***	1.6

\* November and December only. Not a full quarter.

\*\* Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE Free) through 4/31/96.  
Composite index of EAFE Free and Emerging Markets Free beginning 5/1/96.

\*\*\* Aggregate data for 2Q96 includes performance of the emerging markets specialists, Genesis and Montgomery from 5/1/96-6/30/96.

**EXTERNAL INTERNATIONAL STOCK MANAGERS**

**Annualized Performance Summary  
Periods Ending June 30, 1996**

	1 Year		Since Inception		
	Actual	Benchmark	Actual	Benchmark	
Active Managers					
Baring	20.1%	13.3% (2)	14.0%	13.0% (2)	Since 4/1/93
Brinson	25.6	13.3 (2)	11.8	13.0 (2)	Since 4/1/93
Marathon	20.3	13.3 (2)	12.0	8.0 (2)	Since 11/1/93
Rowe	18.0	13.3 (2)	10.9	8.0 (2)	Since 11/1/93
Scudder	21.7	13.3 (2)	11.2	8.0 (2)	Since 11/1/93
Templeton	17.6	13.3 (2)	12.3	8.0 (2)	Since 11/1/93
Genesis	N.A.	N.A.	1.4	0.2 (3)	Since 5/1/96
Montgomery	N.A.	N.A.	1.6	0.2 (3)	Since 5/1/96
Passive Manager					
State Street	13.6	13.3 (2)	13.6	13.3 (2)	Since 10/1/92
Aggregate (1)	16.9	13.4 (4)	14.2	13.3 (4)	Since 10/1/92

- (1) Aggregate for entire international program. Includes active, emerging markets and passive managers as well as impact of currency overlay program.
- (2) Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE Free) for the corresponding period.
- (3) Morgan Stanley Capital International Index of Emerging Markets Free for 5/1/96-6/30/96.
- (4) EAFE Free through 4/31/96. Composite of EAFE Free and Emerging Markets Free as of 5/1/96.



## Statistical Data

### ALTERNATIVE INVESTMENTS - REAL ESTATE June 30, 1996

BASIC FUNDS	TOTAL COMMITMENT	FUNDED COMMITMENT	UNFUNDED COMMITMENT	PERIOD (YEARS)
AETNA	\$42,376,529	\$42,376,529	\$0	14.2
AEW				
Fund III	\$20,000,000	\$20,000,000	\$0	10.8
Fund IV	\$17,400,000	\$15,000,000	\$2,400,000	9.8
Fund V	\$15,000,000	\$15,000,000	\$0	8.5
AMERICAN REPUBLIC	\$1	\$1	\$0	6.4
COLONY INVESTORS II	\$40,000,000	\$11,363,896	\$28,636,104	1.2
EQUITABLE	\$40,000,000	\$40,000,000	\$0	14.7
FIRST ASSET REALTY	\$916,185	\$916,185	\$0	2.2
HEITMAN				
Fund I	\$20,000,000	\$20,000,000	\$0	11.9
Fund II	\$30,000,000	\$30,000,000	\$0	10.6
Fund III	\$20,000,000	\$20,000,000	\$0	9.4
Fund V	\$20,000,000	\$20,000,000	\$0	4.6
LASALLE	\$15,000,000	\$14,644,401	\$355,599	4.8
TA REALTY ASSOCIATES III	\$40,000,000	\$32,800,000	\$7,200,000	2.1
RREEF	\$75,000,000	\$75,000,000	\$0	12.2
TCW				
Fund III	\$40,000,000	\$40,000,000	\$0	10.9
Fund IV	\$30,000,000	\$30,000,000	\$0	9.7
ZELL/MERRILL LYNCH				
Fund II	\$40,388,854	\$40,388,854	\$0	4.6
Fund III	\$50,000,000	\$44,406,000	\$5,594,000	2.4
Fund IV	\$50,000,000	\$0	\$50,000,000	0.2
<b>TOTAL REAL ESTATE (BASICS)</b>	<b>\$606,081,569</b>	<b>\$511,895,866</b>	<b>\$94,185,703</b>	
POST FUND	TOTAL COMMITMENT	FUNDED COMMITMENT	UNFUNDED COMMITMENT	PERIOD (YEARS)
WESTMARK COMMERCIAL	\$13,500,000	\$8,380,500	\$5,119,500	1.0
MTG FUND II				
COLONY INVESTORS II	\$40,000,000	\$11,363,896	\$28,636,104	1.5
<b>TOTAL REAL ESTATE (POST)</b>	<b>\$53,500,000</b>	<b>\$19,744,396</b>	<b>\$33,755,604</b>	
<b>TOTAL REAL ESTATE</b>	<b>\$659,581,569</b>	<b>\$531,640,262</b>	<b>\$127,941,307</b>	

## Statistical Data

### ALTERNATIVE INVESTMENTS - PRIVATE EQUITY June 30, 1996

BASIC FUNDS	TOTAL COMMITMENT	FUNDED COMMITMENT	UNFUNDED COMMITMENT	PERIOD (YEARS)
ALLIED	\$5,000,000	\$5,000,000	\$0	10.8
BANK FUND				
Fund III	\$20,000,000	\$20,000,000	\$0	3.7
Fund IV	\$25,000,000	\$3,750,000	\$21,250,000	0.4
BLACKSTONE PARTNERS II	\$50,000,000	\$13,842,197	\$36,157,803	2.6
BRINSON PARTNERS				
VPAF I	\$5,000,000	\$5,000,000	\$0	8.1
VPAF II	\$20,000,000	\$17,237,751	\$2,762,249	5.6
CHURCHILL CAPITAL PARTNERS II	\$20,000,000	\$17,800,000	\$2,200,000	3.7
CORAL PARTNERS				
IAI Ventures I	\$1,146,890	\$1,146,890	\$0	5.3
Fund I (Superior)	\$7,011,923	\$7,011,923	\$0	10.0
Fund II	\$10,000,000	\$8,500,000	\$1,500,000	5.9
Fund IV	\$15,000,000	\$4,500,000	\$10,500,000	1.9
DSV	\$10,000,000	\$10,000,000	\$0	11.2
FIRST CENTURY	\$10,000,000	\$10,000,000	\$0	11.6
GOLDER THOMA				
Fund III	\$14,000,000	\$14,000,000	\$0	8.7
Fund IV	\$20,000,000	\$14,200,000	\$5,800,000	2.4
HELLMAN & FRIEDMAN III	\$40,000,000	\$13,014,411	\$26,985,589	1.8
IMR PARTNERSHIP	\$15,000,000	\$1,524,900	\$13,475,100	3.9
INMAN BOWMAN	\$7,500,000	\$7,500,000	\$0	11.1
KOHLBERG KRAVIS ROBERTS				
1984 Fund	\$25,000,000	\$25,000,000	\$0	12.1
1986 Fund	\$18,365,339	\$18,365,339	\$0	10.2
1987 Fund	\$145,950,000	\$145,950,000	\$0	8.6
1993 Fund	\$150,000,000	\$94,192,910	\$55,807,090	2.5
MATRIX				
Fund II	\$10,000,000	\$10,000,000	\$0	10.9
Fund III	\$10,000,000	\$10,000,000	\$0	6.2
NORWEST VENTURE CAPITAL	\$10,000,000	\$10,000,000	\$0	12.5
SUMMIT PARTNERS				
Fund I	\$10,000,000	\$10,000,000	\$0	11.5
Fund II	\$30,000,000	\$28,500,000	\$1,500,000	8.1
T. ROWE PRICE	\$106,595,061	\$106,595,061	\$0	8.6
WARBURG PINCUS	\$50,000,000	\$20,000,000	\$30,000,000	1.5
ZELL/CHLMARK	\$30,000,000	\$30,000,000	\$0	6.0
<b>TOTAL PRIVATE EQUITY (BASICS)</b>	<b>\$890,569,213</b>	<b>\$682,631,382</b>	<b>\$207,937,831</b>	

POST FUND	TOTAL COMMITMENT	FUNDED COMMITMENT	UNFUNDED COMMITMENT	PERIOD (YEARS)
CITICORP MEZANINE	\$40,000,000	\$11,843,067	\$28,156,934	1.5
CRESCENT/TCW MEZZANINE	\$40,000,000	\$5,389,004	\$34,610,996	0.3
KLEINWORT BENSON	\$25,000,000	\$1,107,066	\$23,892,934	1.0
SUMMIT SUB-DEBT FUND	\$20,000,000	\$13,000,000	\$7,000,000	2.3
<b>TOTAL PRIVATE EQUITY (POST)</b>	<b>\$125,000,000</b>	<b>\$31,339,136</b>	<b>\$93,660,864</b>	
<b>TOTAL PRIVATE EQUITY</b>	<b>\$1,105,569,213</b>	<b>\$713,970,519</b>	<b>\$301,598,694</b>	

## Statistical Data

### ALTERNATIVE INVESTMENTS - RESOURCE June 30, 1996

BASIC FUNDS	TOTAL COMMITMENT	FUNDED COMMITMENT	UNFUNDED COMMITMENT	PERIOD (YEARS)
<b>FIRST RESERVE CORP.</b>				
AMGO I	\$15,000,000	\$15,000,000	\$0	14.8
AMGO II	\$7,000,000	\$7,000,000	\$0	13.4
AMGO IV	\$12,300,000	\$12,300,000	\$0	8.1
AMGO V	\$16,800,000	\$16,408,222	\$391,778	6.2
APACHE III	\$30,000,000	\$30,000,000	\$0	9.5
MORGAN OIL & GAS	\$15,000,000	\$15,000,000	\$0	7.9
<b>SIMMONS</b>				
OFS II	\$17,000,000	\$14,547,829	\$2,452,171	4.9
OFS III	\$25,000,000	\$8,455,511	\$16,544,489	1.0
<b>TOTAL RESOURCE (BASICS)</b>	<b>\$138,100,000</b>	<b>\$118,711,562</b>	<b>\$19,388,438</b>	
<b>POST FUND</b>	<b>TOTAL COMMITMENT</b>	<b>FUNDED COMMITMENT</b>	<b>UNFUNDED COMMITMENT</b>	<b>PERIOD (YEARS)</b>
<b>TOTAL RESOURCE (POST)</b>	\$0	\$0	\$0	
<b>TOTAL RESOURCE</b>	<b>\$138,100,000</b>	<b>\$118,711,562</b>	<b>\$19,388,438</b>	



## Statistical Data

### 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:

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

Where:

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

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

$C_i$  = Net cash flow on the  $i$ th day of the month

$n$  = Number of cash flows in the month

$R$  = Internal rate of return

$t_i$  = 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 ( $R_1$ ,  $R_2$ , and  $R_3$ ), the quarterly time-weighted return (TWRQ) is:

$$TWRQ = (1 + R_1) * (1 + R_2) * (1 + R_3) - 1$$

State Street's performance methodology is also in compliance with the mandatory requirements of the Association for Investment Management and Research (AIMR).

## Statistical Data

### Calculation of January 1, 1997 Benefit Increase

Actuarial value of required reserves at Jan. 1, 1997	\$9,674,178,000
Less: Reserves not eligible for increase	<u>446,725,000</u>
Actuarial eligible reserves at Jan. 1, 1997	9,227,453,000
 FY96 CPI inflation rate capped at 3.5%	2.800%
Dollar cost of inflationary increase	258,368,684
 June 30, 1996 total required reserves	<u>9,846,596,000</u>
 June 30, 1996 total required reserves adjusted for inflationary increase	10,104,964,684
 Market value of Assets at June 30, 1996	11,916,193,076
Less: Inflation adjusted required reserves	<u>10,104,964,684</u>
Current year excess market value	1,811,228,392
Negative balance carry forward	<u>777,593,086</u>
 Excess market value available for investment based benefit increase	<u>1,033,635,306</u>
Divided by 5 year pay out period	5
 Current year portion of excess market value	206,727,061
Second year portion	155,162,710
Third year portion	-86,222,761
Fourth year portion	207,805,264
Fifth year portion	<u>0</u>
Total five year excess market value	483,472,274
 Greater of current year excess market value or cost of transition adjustment	<u>483,472,274</u>
Divided by eligible required reserves at Jan. 1, 1997	9,227,453,000
Investment based increase for FY96	5.2395%
 <b>Summary:</b>	
 <b>Investment Based Benefit Increase</b>	<b>5.2395%</b>
<b>Inflation Based Benefit Increase</b>	<b><u>2.8000%</u></b>
<b>Total Benefit Increase</b>	<b>8.0395%</b>
 <b>Total Dollar Value of January 1, 1997 Benefit Increase</b>	<b>\$741,840,958</b>

# Statistical Data

## Commissions and Trading Volume

### By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Abel/Noser Corp.	\$ 38,346	\$ 66	\$ 0	\$ 0	\$ 0
ABN AMRO Securities	1,715,712	3,710	0	0	0
Abner Herrman & Brock	5,420,153	8,120	0	0	0
Access Securities	80,521	64	0	0	0
Acciones Y Valores	3,575,283	2,376	0	0	0
Adams Harkness & Hill	17,148,450	7,031	0	0	0
Advest Co.	750,044	0	0	0	0
AIG Capital	0	0	13,423,876	0	0
Albertini	66,797	0	10,006,250	0	0
Albin J Radawiec Co.	89,201	0	0	0	0
Alfred Berg	3,821,189	3,273	0	0	0
Alfred D. Sharp & Co.	0	0	106,313	0	0
Allen & Company	470,253	200	0	0	0
Alpha Management Inc.	22,709,855	21,313	0	0	0
Amadon Corporation	0	0	1,483,900	0	9,956,083
American Express Credit	0	0	0	0	293,336,941
American General Finance	0	0	0	0	286,752,913
Ames (A.E.) & Co.	16,530,694	0	0	0	0
Anderson & Strudwick, Ind.	0	0	4,215,938	0	0
Anvil Inst.	3,444,346	4,120	0	0	0
ANZ	75,885	269	0	0	0
Arbor Trading	0	0	114,521,907	0	0
Arnhold	94,093,116	61,662	0	0	0
Arnold S.	25,124	59	0	0	0
Artemis Cap Grp. Inc.	0	0	0	0	7,359,396
Asia Equity	1,682,337	568	0	0	0
Assoc. Corp. of N. America	0	0	7,000,000	0	301,583,539
Atrium Group	0	0	0	0	1,904,779
Aubrey G Lanston	497,544	2,559	40,238,244	0	0
Autranet	31,958,304	36,759	12,025,438	1,672	0
AVCO Financial Services	0	0	0	0	118,993,398
B. V. Capital Markets	4,486,134	9,211	0	0	0
BA Securities Inc.	0	0	99,324,228	0	424,154,830
BA Securities Inc.	0	0	19,974,804	0	511,125,599
Bain Securities	570,328	1,684	6,028,902	0	0
Baird Patrick and Co.	45,125	0	0	0	0
Balikian Investment Research	0	0	12,135,511	0	0
Bancal Tri-State Corp.	0	0	0	0	19,886,597
Banco Santander De Negocios	3,632,012	6,521	0	0	0
Bangkok Investment Co.	158,596	391	0	0	0
Bank America	0	0	2,790,921	0	0
Bank In Liechtenstein	2,486,794	7,370	0	0	0
Bank Julius	958,378	2,713	0	0	0
Bank of America	0	0	4,907,764	0	0
Bank of NY Securities Inc.	2,003,510	9,443	1,569,563	1	0
Bank Vontobel	1,104,081	3,103	0	0	0
Bankers Trust	0	0	66,532,824	0	15,000,000
Banque Paribas	2,804,578	2,300	0	0	0
Barclays American Corp	45,215,793	346,901	0	0	0
Barclays Bank	1,047,650	0	0	0	0
Barclays Dezoete Wedd	4,837,110	11,952	16,711,008	0	0
Baring Securities	14,686,049	14,033	0	0	0
Barrington Trading Co.	2,101,424	3,726	0	0	0
Baum George K. & Co.	105,452	95	0	0	0
BDS Securities	319,531	781	0	0	0
Bear Stearns Technical Data	788,928	1,044	0	0	0
Bear Stearns-Trinity	0	0	16,570,000	0	0
Bear, Stearns & Co.	371,693,723	361,732	1,056,537,305	25	427,437,000
Beneficial Corp.	0	0	0	0	177,844,041
Benito & M	952,349	10	0	0	0



**Commissions and Trading Volume Con't.**

**By Broker for Fiscal Year 1996**

<b>Broker</b>	<b>Stock \$ Volume</b>	<b>Stock \$ Commissions</b>	<b>Bond \$ Volume</b>	<b>Bond \$ Commissions</b>	<b>Short Term \$ Volume</b>
Berean Capital Inc.	\$ 0	\$ 0	\$ 0	\$ 0	\$ 14,869,751
Berliner Bank	1,009,362	2,616	0	0	0
Bernstein Sanford	107,273,072	116,974	0	0	0
Beta Capital (Global)	110,793	1	0	0	0
BHF Securities	8,838,138	11,714	0	0	0
Blair & Company	52,301,811	45,112	0	0	0
BNY James	1,016,804	666	0	0	0
Bowling Green Securities	646,791	1,569	0	0	0
Brandt (Robert) & Co.	19,189,238	17,283	0	0	0
Brean Murray	53,490	127	0	0	0
Brick Securities	1,296,659	2,082	0	0	0
Bridge Data	1,846,761	2,173	0	0	0
Bridge Trading Co.	134,756,748	144,141	0	0	0
Bridges Financial Services	12,593	23	0	0	0
Brimberg	140,548	183	0	0	0
Broadcort Capital	223,497,788	331,447	0	0	0
Brockhouse & Cooper	16,734,907	21,671	0	0	0
Brown (Alex) & Sons Inc.	163,361,353	138,799	13,290,057	0	0
Brown Bros. Harriman	7,095,638	7,419	12,926,105	0	0
BT Brokerage Corp.	34,672	51	0	0	0
BT Securities Corp.	1,067,460	1,121	13,929,412	0	29,553,181
Buckingham Research GRP	5,549,466	5,406	0	0	0
Bunting Warvurger Sec.	436,383	682	0	0	0
Burnham & Co.	39,688	0	0	0	0
Buttle Wilson Ltd.	146,632	381	0	0	0
BZW Secs.	7,028,107	6,374	14,758,628	0	0
C.J. Lawrence	35,848	31	12,341,248	0	0
C.L. King & Assoc.	520,604	1,188	0	0	0
C.S.F.B	254,322	103	28,594	0	0
Canada Trust	0	0	0	0	19,866
Cannon Securities Inc.	669,326	1,770	0	0	0
Cantor Fitzgerald	159,441,218	139,993	0	0	0
Capel, James	101,909,587	184,064	0	0	0
Capital Inst. Services	10,160,737	13,968	0	0	0
Capital Investments	82,469	118	0	0	0
Carnegie	5,684,559	2,074	0	0	0
Caspian Securities	1,454,038	11,457	0	0	0
Cathay Financial	10,179,057	8,001	0	0	0
Cazenove & Co.	14,143,998	20,554	0	0	0
CCF Paris	0	0	4,777,430	0	0
Central Investment	3,639,483	92	0	0	0
Charterhouse Tilney	42,144	129	0	0	0
Chase Manhattan Bank	0	0	81,881,178	0	0
Chase Securities Inc.	0	0	29,084,248	0	3,161,000,000
Chemical Bank	0	0	164,365,103	0	8,971,450
Chemical Bank N.Y.	0	0	13,157,622	0	0
Chemical Securities Inc.	0	0	36,460,032	0	49,707,358
Chevreurux	7,515,786	4,504	0	0	0
Chevreurux De Virieu	131,600	79	0	0	0
Chevron Oil Fin. Co.	0	0	0	0	24,916,788
Chicago Corp.	58,323,337	73,333	5,097,128	0	0
CIBC/Wood Gundy	0	0	0	0	127,369,331
CIT Group Holdings	0	0	0	0	262,469,724
Citation Group	269,154,571	394,761	0	0	0
Citibank	115,425	400	32,364,649	0	0
Citicorp	0	0	15,292,140	0	5,908,800
Citicorp Securities Inc.	4,801	0	0	0	463,172,532
CL Glazer Inc.	502,897	790	5,168,086	0	0
Clarke & Co.	1,482,975	0	4,359,325	0	0

## Statistical Data

### Commissions and Trading Volume Con't.

#### By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Clarke GX & Co.	\$ 0	\$ 0	\$ 792,313	\$ 0	\$ 0
Cleary Gull Reiland	2,202,885	2,208	0	0	0
Cohig Securities	208,756	0	0	0	0
Commercial Credit Co.	0	0	0	0	229,789,521
Conning & Company	1,572,623	1,362	0	0	0
Conversion Suppress	0	0	111,380	0	0
Countrywide	0	0	9,728,125	0	0
County Natwest Sec. Corp. USA	190,267,544	244,685	3,465,254	0	0
Covato Lipsitz Inc.	177,517	189	0	0	0
Cowen & Co.	98,092,941	97,451	0	0	0
Credit Lyonnais	10,311,301	22,371	0	0	0
Credit Research & Trading	1,422,131	0	0	0	0
Credit Suisse	865,778	220	0	0	0
Cronin & Co. Inc.	0	0	88,784,861	0	0
Crosby Capital Markets	2,472,847	3,976	0	0	0
Crosby Securities	4,100,188	7,005	0	0	0
Crossing Network	6,016,825	2,485	0	0	0
Crowel	0	0	6,541,959	0	0
Crutteden Gust & Merh.	775,044	0	0	0	0
Cyrus J. Lawrence	1,757,532	1,266	7,521,912	0	0
D.A. Campbell	995,483	1,095	0	0	0
Dabney Resnick	7,526	11	0	0	0
DAI Ichi Securities	15,705,325	484	0	0	0
Dain Bosworth Inc.	31,637,958	17,172	49,677,620	0	0
Daiwa Sec. America	8,618,972	364	0	0	10,506
Davenport & Co.	888,870	3,000	0	0	0
DBS Securities	3,108,566	7,387	0	0	0
Deacon Morgan & Co.	11,880	0	0	0	0
Dean Witter Reynolds	20,883,901	22,762	170,053,752	375	2,045,263,462
Deere & Company	0	0	0	0	151,968,715
Delafield Har. Tabell	2,269,780	2,707	0	0	0
Deutsche Westminster Bank	260,780	2	0	0	0
Deutsche Bank Capital	5,566,085	8,871	65,269,194	0	0
Deutsche Bank Govt. Sec. Inc.	57,841,274	69,287	571,753,536	0	494,726,083
Deutsche Morgan Greinfell	2,155,105	3,264	0	0	0
Dillon, Read	38,263,547	34,562	26,912,032	0	917,000,000
DLJ Fixed Income	0	0	649,712,468	0	0
Dominick & Dominick	461,820	370	0	0	0
Donaldson Lufkin	4,897,401	9,370	154,835,803	0	8,024,000,000
Doyle, Paterson, & Brown	413,590	1,102	0	0	0
Dresdner Sec. (USA) Inc	0	0	0	0	39,032,069
Dunlevy	459,849	672	0	0	0
Dyco Programs Inc.	549,182	2,732	0	0	0
Dynabourse SA Paris	1,986,127	1,173	0	0	0
Eastbridge Capital Inc.	0	0	20,012,500	0	0
Edge Securities	177,942	227	0	0	0
Edwards & Co.	1,186,001	1,221	0	0	0
Edwards A.G. & Sons	3,263,856	6,795	1,075,313	0	0
EGS Securities	210,504	263	0	0	0
Enskilda Securities	8,113,678	10,780	0	0	0
Eppler	93,801	580	0	0	0
Equitable Securities	6,097,820	5,135	0	0	0
Equity Securities Trading	325,475	0	0	0	0
Ernst & Co.	11,736,308	17,666	0	0	0
Euro Brokers, Inc.	0	0	0	0	12,491,015
Euromobiliare	3,795,580	11	0	0	0
Ewing Capital, Inc.	175,620	120	0	0	0
Execution Services Inc.	28,854,580	35,717	0	0	0

## Commissions and Trading Volume Con't.

### By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
F & G Inversiones Bursatiles	\$ 3,760,587	\$ 216	\$ 0	\$ 0	\$ 0
F M Mayer & Co.	255,498	99	0	0	0
Factset Data	19,825,542	27,715	0	0	0
Fagenson & Co.	18,392	29	0	0	0
Fahnestock and Co.	137,373	156	0	0	0
FBS Investment Serv. Inc.	0	0	0	0	10,113,000
Federal Home Loan Bank	0	0	1,223,194,763	0	0
FHLMC	0	0	278,710,587	10	0
FIBA Nordic Sec.	168,672	128	0	0	0
Fidelity Brokerage	1,796,001	2,052	0	0	0
Fidelity C	64,705,111	89,436	0	0	0
First Albany	21,817,026	15,680	3,552,086	0	0
First American Sec. Inc.	0	0	10,955,313	0	0
First Analysis Sec. Corp.	2,946,877	3,162	0	0	0
First Asia Securities	83,109	0	0	0	0
First Bank Capital Mkts.	0	0	2,100,640	0	0
First Boston Corporation	338,511,752	500,947	2,194,315,466	120	2,860,584,519
First Chicago Cap. Mkts. Inc.	0	0	0	0	14,895,953
First Chicago Corp.	742	0	0	0	9,989,753
First Manhattan Company	6,325,410	11,166	0	0	0
First Marathon Sec., Ltd.	35,584	55	0	0	0
First Options of Chicago	4,709,101	4,634	0	0	0
First Pacific	31,506	126	0	0	0
First Securities	65,733	2	0	0	0
First Trust	0	0	0	0	37,784,877
First Union Cap. Mkts	0	0	9,302,084	0	15,945,677
Fleming (Robert) Inc.	8,950,848	12,418	0	0	0
Fleming Securities Ltd.	4,400,474	1,032	0	0	0
Ford Financial Services	0	0	0	0	766,847,494
Ford Motor Credit	4,720,575	11,875	0	0	24,835,917
Fourteen Research Corp.	6,237,210	6,540	0	0	0
Fox Pitt Kelton Inc.	10,623,086	2,374	0	0	0
Frank Russel	12,908,824	12,162	0	0	0
Freeman Securities	0	0	5,006,250	0	0
Freimark Blair	3,306,175	7,906	0	0	0
Friedman, Billings & Ramsey	1,841,497	852	215,000	0	0
Fuji Securities	0	0	52,698,703	0	0
Furman Selz Mager	58,913,872	61,760	487,735	0	0
G. K. Goh	2,246,760	9,759	0	0	0
Gateway CA	117,134	468	0	0	0
Gena, New	13,140,980	3,718	0	0	0
General Elec. Capital Corp.	0	0	0	0	1,045,917,951
Genesis	3,359,488	3,342	0	0	0
Gerard Klaver Madiso	327,453	497	0	0	0
Gilder Gagnon	599,456	1,644	0	0	0
Glazer, C. L.	83,567	167	0	0	0
Global Securities	772,254	0	0	0	0
GMAC Financial Services	0	0	0	0	227,145,976
Goepel Shields & Partners	380,720	2,620	0	0	0
Goldis Pittsburg Ins.	261,410	92	0	0	0
Goldman Sachs & Company	585,183,299	424,203	4,219,020,740	113,117	458,773,346
Goodbody Stockbrokers	218,995	4,048	0	0	0
Gordon CP	709,971	1,903	0	0	0
Gordon Haskett & Co.	61,900	81	0	0	0
Grantchester Secs. Inc.	0	0	3,165,250	0	0
Greenfield Arbitrage Partners	0	0	8,322,702	0	0
Greenstreet Advisors	78,936	170	0	0	0
Greenwich Capital Markets Inc.	81,819	0	2,695,280,108	2	8,406,295,440



Commissions and Trading Volume (Con't)

By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Grigsby & Associates	\$ 0	\$ 0	\$ 3,999,375	\$ 0	\$ 0
Gruntal & Company	5,319,872	1,250	10,183,227	0	0
GX Clarke	0	0	7,263,610	0	1,060,882
H Lunden	149,260	83	0	0	0
Hall Inter.	37,774,010	26,373	0	0	0
Hambrecht & Quist	4,350,966	1,408	0	0	0
Hampshire Sec. Inc.	648,750	0	0	0	0
Hanifin	929,290	3,762	0	0	0
Hartley Poynton	506,157	1,958	0	0	0
Hennings & Associates	0	0	1,946,047	0	0
Herzog Heine Gedvid	28,657,487	8,009	0	0	0
HG Asia Securities	493,928	1,038	0	0	0
HKS Corp (Helmut)	11,184	26	0	0	0
Hoare Govett	14,198,841	33,534	0	0	0
Hoenig & Co.	48,005,398	104,344	0	0	0
Household International	0	0	0	0	297,226,467
Howard Weil Labouisse Friedric	42,513	85	0	0	0
Huntleigh Securities Corp.	174,844	0	0	0	0
IBES	2,761,842	3,697	0	0	0
IBJ Intl. Ltd.	0	0	771,863	0	0
IBM Corp.	0	0	0	0	224,250,988
IBM Credit Corp.	0	0	0	0	158,780,643
Illinois Co. (The)	48,750	0	0	0	0
Independence Institution	226,552	327	0	0	0
Ing Bank Brazil	0	0	1,277,640	0	0
Ingalls & Snyder	580,542	1,696	0	0	0
Instinet	1,401,996,299	637,472	0	0	0
Intermobiliare Sec.	2,085,547	5	0	0	0
International Nederland Group	0	0	1,347,019	0	0
International Strategy & Inv.	148,863	345	0	0	0
Interstate	25,271,656	31,815	0	0	0
Interstate Pcs.	245,013	447	0	0	0
Invemed Associates	3,514,891	2,694	0	0	0
Inversiones Bursatiles	959,104	54	0	0	0
Investment & Insurance Consultants	3,107,457	15,707	0	0	0
Investment Technology Corp.	2,885,586,728	1,875,413	0	0	0
Investment Technology Grp., Inc.	3,575,111	1,914	0	0	0
Investors Security Corp.	2,245,228	6,837	0	0	0
ISI Group	6,862,189	11,036	9,529,000	0	0
J. C. Bradford & Co.	2,074,198	0	0	0	0
J. P. Morgan & Co.	2,479,922	4,453	121,139,318	0	9,942,000
J.P. Morgan Securities Inc.	90,871,542	112,730	582,235,478	0	227,112,426
J. B. Were & Son	4,932,381	16,080	0	0	0
J.M. Sassoon & Co.	271,302	793	0	0	0
James Cape	7,373,123	10,895	0	0	0
Janney Montgomery Scott	9,415,083	10,684	0	0	0
Jardine Fleming	8,186,104	7,687	0	0	0
Jean Pierre Pinatton	31,539,443	1,918	0	0	0
Jefferies & Co.	193,705,472	205,289	5,643,948	0	0
Jensen Securities	197,514	354	0	0	0
John Hancock	0	0	1,668,125	0	0
Johnson Rice & Co.	1,950,732	2,199	0	0	0
Jones & Associates	25,864,784	41,387	0	0	0
Josephthal & Co.	8,008,253	5,142	0	0	0
JP Bank Stolkholm	0	0	8,247,810	0	0
JPP Euro Securities	1,072,941	442	0	0	0
KALB Voorhis & Co.	1,373,911	957	0	0	0
Kankaku Securities	2,309,887	64	0	0	0

**Commissions and Trading Volume Con't.**
**By Broker for Fiscal Year 1996**

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Kaufman Alsberg	\$ 0	\$ 0	\$ 62,574	\$ 0	\$ 0
Kay Hian James Capel Singapore	341,448	1,202	0	0	0
Keane Securities	23,709	35	0	0	0
Keefe Bruyette & Wood	15,977,788	15,321	7,944,175	0	0
Kemper Cap.	2,605,537	4,030	38,702,208	0	0
Kemper Securities Inc.	60,769	81	4,111,370	0	0
KIM. Eng. Sec.	1,585,082	3,803	0	0	0
Kinnard (John G.) & Co.	435,674	195	0	0	0
Kleinworth Benson Govt. Sec. Inc.	303,834	322	0	0	0
Kleinworth Benson Inc.	39,155,864	21,909	0	0	0
Koonce Sec., Inc.	296,794	1,400	0	0	0
Ladenburg Thalmann	152,707	288	0	0	0
Lamberson Knight	0	0	0	0	22,636,102
Lamson Brothers & Company	207,739	274	0	0	0
Larkin, Emmett A., & Co. Inc.	475,600	600	0	0	0
Latinvest	179,000	0	0	0	0
Lawrence	763,089	755	0	0	0
Lazard Freres & Co.	5,101,867	5,554	9,582,852	0	0
Legg Mason	10,517,365	16,741	0	0	0
Legg Mason Wood Walk	187,162	341	0	0	0
Lehman Bros Inc.	319,983,879	281,732	648,631,781	0	727,390,588
Lehman Brothers Inc.	458,352,908	427,220	4,287,823,870	212	27,758,674
Lehman Govt. Securities	0	0	461,717,676	23	1,311,927,861
Lewco Securities Inc.	162,902,723	191,758	0	0	0
Liberty Mutual Tax Exempt Inc Tr	1,051,076	8,083	2,385,721	0	0
Libra Securities	0	0	10,960,533	0	0
Local to Foreign/Non-Cash	2,681,777	0	0	0	0
Lorraine L Blair Inc.	26,457	15	914,000	0	0
Louis Nicoud	2,333,927	1,560	0	0	0
Lynch & Maher Securities	0	0	1,203,763	0	0
Lynch, Jones & Ryan	151,430,390	217,459	25,196,833	0	0
M L Pierce Fenner	0	0	6,212,091	0	0
Mabon Nugent & Co.	0	0	7,584,281	0	0
Maloney & Co.	907,397	533	0	0	0
Mandatory Exchange/Non-Cash	61,935	0	1,961,188	0	0
May Financing	1,559,210	1,123	0	0	0
Mayer & Schweitzer Inc.	6,493,387	0	0	0	0
McDonald & Company	5,861,625	8,097	76,478,363	0	0
McGraw Hill	1,278,127	2,268	0	0	0
McIntosh & Co.	1,521,892	3,525	0	0	0
Mellon Capital Mkts.	0	0	0	0	64,300,610
Meridian Capital Markets	0	0	4,391,269	0	0
Meridian Securities, Inc.	0	0	10,477,818	0	0
Meridian Securities Intl. Ltd.	0	0	5,238,909	0	0
Merrill Lynch P F & S	956,190,308	975,010	4,396,276,251	872	1,104,542,104
Mesirow and Company	1,132,949	1,582	0	0	0
Mesirow Capital	7,782	11	0	0	0
Mesirow Financial Inc.	0	0	0	0	4,923,882
Midas Corr	1,444,197	45	0	0	0
Midland Walwyn	582,878	900	0	0	0
Midwest Discount Securities	503,625	0	0	0	0
Midwood Securities	37,099	55	0	0	0
Miladesa Servicios Bursatiles	3,406,085	16,923	0	0	0
Mitchum, Jones + Tem	14,452	22	0	0	0
Monarch Securities Inc.	1,870,963	1,420	0	0	0
Montgomery Securities	214,652,733	244,453	0	0	0
Moran & Assoc.	80,549	205	0	0	0
Morgan Grenfell	15,703,820	16,198	0	0	0

## Statistical Data

### Commissions and Trading Volume Con't.

#### By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Morgan Guaranty	\$ 1,168,971	\$ 1,130	\$ 18,144,000	\$ 0	\$ 0
Morgan Kegan Inc.	12,168,505	9,991	0	0	0
Morgan Stanley & Co.	710,897,456	408,275	3,164,066,289	11,030	506,370,020
Moss Roberts & Co.	745,233	1,806	0	0	0
Mspiro-Morgan Stanley & Co.	0	0	3,058,432	0	0
Murphy, Marseilles, Smith & NA	8,116,515	13,370	0	0	0
Myerberg & Co. L.P.	0	0	6,095,473	0	0
National Financial	5,337,220	5,598	0	0	0
Nations Bank	800,000	0	109,728,514	0	5,180,246
Nationsbank Capital Mkts Inc.	0	0	26,683,516	0	22,054,000,000
Nationsbank	0	0	6,873,900	0	0
Natwest Securities	17,116,630	41,467	8,371,627	0	0
NCL Investments Ltd.	159,183	0	0	0	0
Needham Securities	95,091	87	0	0	0
Nesbitt Burns	257,516	391	7,790,691	0	0
Nesbitt Thomson Sec.	139,182	0	1,119,260	0	0
Neuberger & Berman	72,439,151	65,639	4,807,197	0	0
Newbridge Securities	7,326,076	2,632	0	0	0
Nikko Securities	13,528,893	240	28,671,610	0	6,952,027,481
Nomura Bank	74,016	4	0	0	0
Nomura Capital Services	0	0	29,193,750	0	0
Nomura Securities Intl.	97,717,423	6,636	309,671,720	0	0
Norman Hudson & Co.	305,697	34	0	0	0
Northington Capital	54,455	80	0	0	0
Norwest Bank MN	0	0	0	0	47,097,709
Norwest Corp.	0	0	0	0	70,000,000
Norwest Financial Inc.	0	0	0	0	194,371,732
Norwest Investment Serv. Inc.	0	0	0	0	142,103,736
Not Applicable*	263,040,344	19,803	1,029,818,599	0	251,084,387
Nutmeg Securities	649,578	1,877	0	0	0
O'Neil (Wm Co., Inc.)	3,915	15	0	0	0
Oddo Desache' Paris	187,402	114	0	0	0
Okasan Sec Co.	427,448	22	0	0	0
Olde & Co.	513,704	165	756,390	0	0
Omnibus Conversion	0	0	0	0	0
Oppenheimer & Co.	114,797,296	127,897	2,825,988	0	0
ORD Minnett	16,007,485	41,679	0	0	0
Ormes Capital	74,155	105	0	0	0
Oscar Grussman	1,042,728	828	0	0	0
OTA Ltd Partnership	407,309	436	0	0	0
Pacific Cr.	715,466	432	0	0	0
Pacific Crest Securities	99,696	152	0	0	0
Paine Webber Inc.	16,584,684	17,262	155,147,789	0	8,053,000,000
Paine Webber J & C	393,300,296	468,954	1,743,698,532	593	778,672
Paribas Capital Markets	7,323,736	25,717	57,276,954	0	0
Paribas Co.	13,635,860	6,597	27,235,786	0	0
Paul F Newton	32,829	420	0	0	0
Paulsen, Dowling	4,751,766	7,744	0	0	0
PCS Securities Inc.	4,341,245	4,430	0	0	0
Pennsylvania Merchant Group	288,600	0	0	0	0
Pension Consulting Serv.	526,549	781	0	0	0
Peregrine Securities	9,760,986	104,308	0	0	0
Pershing	182,112,877	176,511	1,561,832,532	0	0
Peterbroeck	1,255,587	153	0	0	0
Peters & Co.	15,386	39	0	0	0
Pforzheimer Carl H.	9,709	7	0	0	0
Phileo Allied Securities	2,620,626	8,568	0	0	0
Phillips & Drew	21,257,015	9,844	0	0	0
Pictet & Co.	354,818	891	0	0	0



**Commissions and Trading Volume Con't.**
**By Broker for Fiscal Year 1996**

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Piper Jaffray & Hop	\$ 46,657,636	\$ 18,490	\$ 8,190,521	\$ 0	\$ 0
Pragor McCarthy & Lewis	234	0	0	0	0
Prebon Yamane (USA) Inc.	0	0	0	0	4,286,308
Presidential Securities, Inc.	8,073,810	1,330	0	0	0
Probursa	1,299,990	604	0	0	0
Prudential	1,635,926	4,549	183,301,997	0	0
Prudential Funding Corp.	0	0	0	0	179,623,248
Prudential Securities Inc.	251,203,426	270,969	131,575,855	0	2,040,000,000
Prudential-Bache Sec.	0	0	30,924,640	0	0
Pryor McClendon	820,251	1,482	0	0	0
Pryor McClendon Counts & Co., Inc.	0	0	24,960,938	0	8,401,699
Punk Ziege	4,517,983	4,001	0	0	0
Q&R Clearing Corp.	180,022	223	0	0	0
Quaker Sec., Inc.	65,916,032	22,524	0	0	0
Quantitative Analysis	356,979	618	0	0	0
Quest Securities, Inc.	549,669	1,000	0	0	0
R. J. Streichen & Company	21,625	0	0	0	0
R. L. Renck	365,411	594	0	0	0
Rauscher P.	4,825,607	8,369	0	0	0
Raymond James & Associates	9,807,976	11,034	6,461,609	0	0
RBC Dominion Securities	2,781,175	4,388	0	0	0
Republic Natl. Bank N.Y.	0	0	409,027	0	0
Riada & Co.	0	0	2,970,070	0	0
Rizal Commerical Banking	1,579,834	597	0	0	0
Robbins	584,901	667	0	0	0
Robert Brandt & Co.	116,332	84	0	0	0
Robert Fleming	5,926,370	3,641	932,900	0	0
Robert W. Baird & Co.	26,854,768	12,479	0	0	0
Robertson Colman & Stephens	87,668,944	31,798	4,943,750	0	0
Robinson-Humphrey Co.	26,652,247	30,484	0	0	0
Rochdale Securities Corp.	11,465,538	13,349	0	0	0
Rodman & Renshaw	7,527,479	7,388	2,246,445	0	0
Roulston & Company	7,979,854	9,925	10,048,091	0	0
Sal Oppenheim Et Cie	473,843	1,116	0	0	0
Salomon Brothers	1,377,141,312	924,943	6,586,695,749	4,865	1,956,200,764
Samuel H Sloan	105,536	330	6,822,813	0	0
Sanford Bernstein	1,652,757	1,402	0	0	0
Sanwa-BGK	0	0	630,650,540	0	0
Sarasin Securities	2,079,737	5,280	0	0	0
Sassoon Securities	571,896	1,780	0	0	0
SBC Warburg, London	3,824,979	6,740	0	0	0
SBS Securities Corp.	1,527,755	1,692	0	0	0
Schapiro (M.A.) & Co.	6,219,849	0	0	0	0
Schroder Munchmeyer	4,691,294	9,500	0	0	0
Schroder Securities	11,758,659	12,702	0	0	02
Scotia McLeod	3,599,187	6,668	6,173,685	0	0
Scotiamcleod (USA)	73,833	138	0	0	0
Scott & Stringfellow	578,772	1,170	0	0	0
SEI Financial Svcs.	35,805,714	53,884	0	0	0
SEI Funds Evaluation	72,419,150	82,525	0	0	0
Seligman Securities	686,091	1,800	0	0	0
Sellier S.A.	10,659,554	6,253	0	0	0
Shearson Lehman	1,199	0	256,003,135	0	0
Sherwood Securities	12,908,920	6,850	0	0	0
Shields Capital Corp.	902,771	1,903	0	0	0
Siff Marks+Oakley	80,652	141	0	0	0
Simmons & Company	394,263	955	0	0	0
Simmons First Natl Bank	0	0	0	0	16,002,982
Sloate, Wiesman	5,332,403	8,460	0	0	0

## Statistical Data

### Commissions and Trading Volume Con't.

#### By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Smith Barney & Company	\$ 11,818,095	\$ 14,188	\$778,158,894	\$ 0	\$2,404,000,000
Smith New Court	1,418,906	3,196	0	0	0
Societe General	261,052,922	113,269	2,223,311	0	0
Soundview	17,858,691	14,054	0	0	0
Southcoast Capital Corp.	1,793,779	683	0	0	0
Southeast Research Partners	397,055	95	0	0	0
Southern Financial Consultants	134,885	54	0	0	0
Southwest Securities	719,742	0	0	0	0
Spear, Leeds & Kellogg	4,729,736	3,987	654,805	0	0
Speer and Company	0	0	195,103	0	0
SSGA External	213,894,411	0	0	0	0
Standard & Poor Securities	179,991,467	228,961	0	0	0
Standard Chartered Bank	71,115	0	0	0	0
State Board of Investment	0	0	69,426,713	0	0
State ST BK & Trust	8,898,531	0	3,275	0	20,399,120,810
Stephen Rose & Part	1,273,060	5,000	0	0	0
Sternburg (M) & Co.	0	0	0	0	15,000,000
Stires & Company, Inc.	81,317	0	0	0	0
Stirling	0	0	18,300	0	0
Sun Hung Kai	259,131	100	0	0	0
Sutro and Company Inc.	3,277,786	4,262	500,357	0	0
Svenska Handelsbanken	1,324,530	525	0	0	0
Swedbank Stockholm	238,480	106	0	0	0
Swiss Bank	5,301,026	5,012	57,551,022	2,466	2,187,569
T & E Davy	30,040	0	0	0	0
T A Securities	115,829	459	0	0	0
TA Securities Malaysia	3,615,998	12,563	0	0	0
Texaco Inc.	0	0	0	0	60,912,293
Thompson Institutional Services	3,756,342	5,449	0	0	0
Tiedemann	225,379	65	1,207,739	0	0
TIR Securities	5,902,771	7,412	0	0	0
Toluca Pacific	141,505	455	0	0	0
Tonge Co.	8,738,852	10,073	3,027,873	0	0
Toronto Dominion Sec Inc.	0	0	0	0	65,337,312
Travelers Group	0	0	0	0	34,893,976
Travelers Inc.	0	0	0	0	14,912,844
Troster Singer	28,437	46	0	0	0
Tucker, Anthony & R. L. Day, In	7,836,234	6,432	929,123	0	0
U S T Securities	13,040	25	0	0	0
U. S. Clearing	4,632,102	6,297	0	0	0
UBS Phillips & Drew Sec.	186,935	413	0	0	0
UBS Securities	8,523,388	15,047	51,410,207	0	117,725
UBS-DB Corporation	124,868,194	114,783	916,799,009	14	0
UBSSC-UBS	0	0	1,327,940	0	0
Unibank	824,857	484	0	0	0
Union Bk-Swiss Zurich	25,994,835	22,903	0	0	0
Unit Separation	0	0	0	0	0
United Securities	0	0	1,182,994	0	0
Universal Sec., Tokyo	0	0	10,555,566	0	0
Unterburg Harris & Desantis	2,920,503	100	0	0	0
Utendahl	1,696,502	0	7,623,216	7	0
Van Kasper	10,230	30	0	0	0
Vector Casa De Bolsa	4,946,592	0	0	0	0
Vector Securities Inc.	3,833,861	2,573	0	0	0
Venhu Securities	0	0	12,943,634	0	0
Volpe & Covington	57,188	0	0	0	0
Volpe Welt	8,285,266	3,642	0	0	0
Vontobel	3,055,282	7,956	0	0	0
W. I. Carr	2,383,597	4,452	0	0	0

## Statistical Data

### Commissions and Trading Volume Con't.

#### By Broker for Fiscal Year 1996

Broker	Stock \$ Volume	Stock \$ Commissions	Bond \$ Volume	Bond \$ Commissions	Short Term \$ Volume
Wagner Stott & Co.	\$ 11,447	\$ 22	\$ 0	\$ 0	\$ 0
Wainwright Securities	43,595	44	0	0	0
Walsh Greenwood	0	0	0	0	38,135
Warburg S. G.	71,273,146	71,533	0	0	0
Warrants Issued	0	0	0	0	0
Warrants Sold	777,536	0	0	0	0
Wasserstei	151,467	322	0	0	0
Watkins & Company	380,650	1,000	0	0	0
Wedbush Securities	8,773,251	11,892	0	0	0
Weeden & Company	66,368,957	90,832	0	0	0
Weiss	78,010,539	193,297	32,179	0	0
Wells Fargo Bank	13,799,063	0	0	0	0
Wertheim & Co.	3,128,720	3,493	0	0	0
Wertheim Schroder & Co. Inc.	1,207,345	1,703	0	0	0
Wessels, Arnold	37,422,849	9,231	0	0	0
Westminster	9,693,005	28,104	0	0	0
Westpac Australia	50	0	0	0	0
Westpac Sydney	33,208	0	0	0	0
Wheat First Cap Mkts.	0	0	0	0	17,150,658
Wheat First Securities Inc.	0	0	0	0	5,425,874
Wheaton First Securities Inc.	12,932,787	28,901	2,595,400	0	0
Wicar	554,082	360	0	0	0
William Blair & Co.	464,749	552	0	0	0
William O Neil & Co.	14,355	55	0	0	0
Williams	2,974,054	7,080	0	0	0
Williams Cap Growth	5,359,387	6,064	0	0	0
Williams Securities Inc.	414,948	620	0	0	0
Wilshire Associates	10,423,829	17,164	0	0	0
Wm. C. Roney & Co.	633,680	1,314	0	0	0
Wood & Co.	4,217,868	4,573	0	0	0
Wood Gundy & Company	391,718	964	0	0	0
WorldSec International Ltd.	377,824	1,509	0	0	0
Yamaichi	11,234,491	305	0	0	0
Yamaichi Intl. (Amer) Inc.	1,053,094	14	0	0	0
Yamatane	132,644	7	0	0	0
Yorkton Securities Inc.	706,438	0	0	0	0
Young Smith & Peacock	0	0	997,648	0	0
Zions Capital Markets	0	0	9,903,125	0	169,886,874
Broker not available**	7,552,427,688	103,427	2,080,043,046	0	16,135,630,527
<b>All Brokers Combined</b>	<b>\$24,057,646,588</b>	<b>\$14,568,870</b>	<b>\$45,466,561,900</b>	<b>\$138,992</b>	<b>\$118,523,701,979</b>

\* Includes income reinvestment and option exercise volume.

\*\* Includes transactions where broker data was incomplete.

Note: Totals may not add due to rounding.



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STATE OF MINNESOTA

**OFFICE OF THE LEGISLATIVE AUDITOR**

CENTENNIAL BUILDING, 658 CEDAR STREET • ST. PAUL, MN 55155 • 612/296-4708 • TDD RELAY 612/297-5353

JAMES R. NOBLES, LEGISLATIVE AUDITOR

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## **Independent Auditor's Report**

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

We have audited the accompanying financial statements of the Supplemental Investment Fund and the Post Retirement Investment Fund, which constitute the Investment Trust Funds of the state of Minnesota as of and for the year ended June 30, 1996, as shown on pages 110 to 116. These financial statements are the responsibility of the State Board of Investment's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, as issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

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, in all material respects, the net assets and participation of the Investment Trust Funds of the state of Minnesota at June 30, 1996, 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 audit was made for the purpose of forming an opinion on the financial statements taken as a whole. The combining financial statements and supporting schedules on pages 118 to 140 are presented for the purposes of additional analysis and are not a required part of the Investment Trust Funds of the state of Minnesota. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

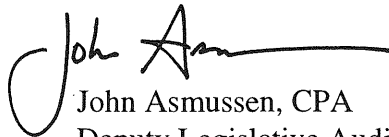


State Board of Investment  
and  
Howard J. Bicker, Executive Director  
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In accordance with *Government Auditing Standards*, we have also issued a report dated January 1997 on our consideration of the State Board of Investment's internal control structure and its compliance with laws and regulations.



James R. Nobles  
Legislative Auditor



John Asmussen, CPA  
Deputy Legislative Auditor

December 2, 1996

**STATE BOARD OF INVESTMENT  
INVESTMENT TRUST FUNDS  
STATEMENT OF ASSETS AND LIABILITIES  
JUNE 30, 1996  
AMOUNTS IN (000)'S**

	<b>SUPPLEMENTAL INVESTMENT FUND TOTAL(5)</b>	<b>POST RETIREMENT INVESTMENT FUND (6)</b>
<b>ASSETS:</b>		
<b>Investments (at market value) (3)</b>		
Common Stock	\$ 499,832	\$ 7,958,855
Alternative Equities	0	0
Fixed Income Securities	206,122	3,653,107
Short Term Securities	93,322	270,338
<b>Total Investments (4)</b>	<b>\$ 799,276</b>	<b>\$ 11,882,300</b>
 Cash	 0	 0
Security Sales Receivable	0	0
Accounts Receivable-Fee Refunds	0	0
Accounts Receivable-Mortality	0	16,170
Accounts Receivable-Participants	0	21,494
Accrued Interest	1,797	0
Accrued Dividends	0	0
Accrued Short Term Gain	426	1,014
<b>TOTAL ASSETS</b>	<b>\$ 801,499</b>	<b>\$ 11,920,978</b>
 <b>LIABILITIES:</b>		
Management Fees Payable	119	3,768
Security Purchases Payable	1,999	0
Accounts Payable-Participants	0	23
Accounts Payable-Mortality	0	994
<b>TOTAL LIABILITIES</b>	<b>\$ 2,118</b>	<b>\$ 4,785</b>
 <b>NET ASSETS AT JUNE 30, 1996</b>	 <b>\$ 799,381</b>	 <b>\$ 11,916,193</b>

**STATE BOARD OF INVESTMENT  
INVESTMENT TRUST FUNDS  
STATEMENT OF CHANGES IN NET ASSETS  
YEAR ENDED JUNE 30, 1996  
AMOUNTS IN (000)'S**

	<b>SUPPLEMENTAL INVESTMENT FUND TOTAL</b>	<b>POST RETIREMENT INVESTMENT FUND</b>
<b>FROM INVESTMENT ACTIVITY:</b>		
Net Investment Income	\$ 102,661	\$ 1,343,766
Realized Gains (Losses)	80,433	67,271
Unrealized Gains (Losses)	( 65,461 )	332,422
<b>TOTAL INCOME</b>	<b>\$ 117,633</b>	<b>\$ 1,743,459</b>
 Less Distribution To		
Participant Accounts	( 117,618 )	( 988,535 )
Undistributed Dedicated Income	0	0
<b>Net Change In Undistributed Income</b>	<b>\$ 15</b>	<b>\$ 754,924</b>
 <b>FROM PARTICIPANT TRANSACTIONS:</b>		
Additions To Participant Accounts		
Participant Contributions	31,724	823,678
Income Distribution	117,618	988,535
Income To Be Distributed	0	0
<b>Total Additions</b>	<b>\$ 149,342</b>	<b>\$ 1,812,213</b>
Deductions From Participant Accounts		
Withdrawals	32,917	892,776
<b>Total Deductions</b>	<b>\$ 32,917</b>	<b>\$ 892,776</b>
<b>Net Change In Participation</b>	<b>\$ 116,425</b>	<b>\$ 919,437</b>
<b>TOTAL CHANGE IN ASSETS</b>	<b>\$ 116,440</b>	<b>\$ 1,674,361</b>
 <b>NET ASSETS:</b>		
Beginning Of Period	682,941	10,241,832
<b>End Of Period</b>	<b>\$ 799,381</b>	<b>\$ 11,916,193</b>



**STATE BOARD OF INVESTMENT  
INVESTMENT TRUST FUNDS  
STATEMENT OF OPERATIONS  
YEAR ENDED JUNE 30, 1996  
AMOUNTS IN (000)'S**

	<b>SUPPLEMENTAL INVESTMENT FUND TOTAL</b>	<b>POST RETIREMENT INVESTMENT FUND</b>
<b>INVESTMENT INCOME:</b>		
Interest	\$ 11,610	\$ 297,587
Dividends	86,146	1,048,885
Short Term Gains	5,531	15,062
Income Before Expenses	\$ 103,287	\$ 1,361,534
Management Fees	626	17,768
<b>NET INCOME</b>	<b>\$ 102,661</b>	<b>\$ 1,343,766</b>
<b>REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS</b>		
Realized:		
Proceeds From Sales	\$ 331,958	\$ 2,490,650
Cost Of Securities Sold	251,525	2,423,379
Net Realized Gain (Loss)	\$ 80,433	\$ 67,271
Unrealized:		
Beginning Of Period	107,768	366,429
End Of Period	42,307	698,851
Increase (Decrease) In		
Unrealized Appreciation	(\$ 65,461 )	\$ 332,422
<b>NET REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS</b>	<b>\$ 14,972</b>	<b>\$ 399,693</b>

## NOTES TO THE FINANCIAL STATEMENTS

### JUNE 30, 1996

#### 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 (SBI) under authority of *Minnesota Statutes Chapter 11A*. The Investment Trust funds include the Supplemental Investment Fund and the Post Retirement Investment 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.

Authorized Investments: *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; international securities; 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, 1996, 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. The state's investment risk for repurchase agreements is reduced by a SBI 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 SBI uses a valuation service provided by Financial Control Systems, Inc.

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

Income Recognition: 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".

Amortization of Fixed Income Securities: Premiums and discounts on fixed income purchases are amortized over the remaining life of the security using the "Effective Interest Method".

Loaning Securities: Certain U.S. Government and Government Agency securities are loaned out by the SBI 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

Asset listings summarizing the securities held by these funds can be found starting on page **141** of this report. A complete listing is available by contacting the SBI's office. Fixed income and equity securities are presented at market value.

#### 3. COST OF INVESTMENTS

At June 30, 1996, the cost of investments for the Investment Trust Funds was:

Supplemental Investment Fund	\$ 756,966,579
Post Retirement Fund	\$ 11,183,448,576

## NOTES TO THE FINANCIAL STATEMENTS

### JUNE 30, 1996

#### 4. LOANED SECURITIES

The market value of loaned securities outstanding at June 30, 1996 was:

Supplemental Investment Fund	\$	27,838,215
Post Retirement Fund	\$	-0-

#### 5. SUPPLEMENTAL INVESTMENT FUND

The Supplemental Investment Fund serves as an investment vehicle for the various state and locally administered pension plans. During Fiscal Year 1996 the fund included seven separate accounts with different investment objectives. Financial information on the individual accounts is shown on pages 118 to 129 of this report. Participation in the Supplemental Investment Fund accounts is determined in accordance with various statutory requirements.

#### 6. POST RETIREMENT INVESTMENT FUND

The Post Retirement Investment Fund (POST) 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. Assets of the POST Fund are held in custody at State Street Bank in Boston.

Participation in the POST Fund is equal to the actuarially determined required reserves for retirement benefits as of June 30, 1996. 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.

*Laws of Minnesota 1992, Chapter 530* changed the formula used to calculate post retirement benefit increases. The new formula contains both an inflation adjustment and an investment component and became effective for benefit increases granted on and after January 1, 1994.

Pursuant to *Minnesota Statutes* Section 11A.18, Subdivision 9, the inflation increase is based on the change during the Fiscal Year in the *Consumer Price Index for urban wage earners and clerical workers all items index* published by the Bureau of Labor

*Statistics of the United States Department of Labor.* In addition to the inflation based increase, a portion of the June 30, 1996 net market value in excess of Required Reserves is available for distribution as an investment based benefit increase to pension fund participants in January 1996.

The benefit increase is stated as a percentage of eligible 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 May 31, 1996 are eligible to receive the January 1, 1997 benefit increase.

Inflation Based Benefit Increase	2.8000%
Investment Based Benefit Increase	<u>5.2395%</u>
<b>Total Benefit Increase</b>	<b>8.0395%</b>

#### 7. POOLED INVESTMENT ACCOUNTS

The State Board of Investment manages ten pooled investment accounts for the Investment Trust Funds, the Supplemental Investment Fund and the Defined Benefit Pension Funds of the State of Minnesota. The assets of the pooled accounts are held by SBI's master custodian, State Street Bank of Boston. Financial information on these pooled accounts is shown on pages 130 to 137 of this report.



**STATE BOARD OF INVESTMENT  
INVESTMENT TRUST FUNDS  
SCHEDULE OF PARTICIPATION  
JUNE 30, 1996  
AMOUNTS IN (000)'S**

	<u>SUPPLEMENTAL INVESTMENT FUND TOTAL</u>	<u>POST RETIREMENT INVESTMENT FUND</u>
Teacher's Retirement Fund	\$ 0	\$ 4,225,515
Public Employees Retirement Fund	0	3,152,736
State Employees Retirement Fund	0	1,433,177
Public Employees Police & Fire Fund	0	391,369
Public Employees Consolidation Fund	0	381,589
Highway Patrolmen's Retirement Fund	0	142,325
Legislators & Survivors Retirement Fund	0	16,481
Correctional Employees Retirement Fund	0	54,942
Judges Retirement Fund	0	48,462
Income Share Account	388,628	0
Growth Share Account	156,760	0
Money Market Account	50,276	0
Common Stock Index Account	95,877	0
International Stock Account	13,751	0
Bond Market Account	24,465	0
Fixed Interest Account	69,645	0
<b>TOTAL PARTICIPATION</b>	<u>\$ 799,402</u>	<u>\$ 9,846,596</u>
 <b>Adjustments</b>		
Unrealized Appreciation		
(Depreciation) of Investments	0	698,851
Undistributed Earnings	( 21 )	1,370,746
<b>NET ASSETS</b>	<u><u>\$ 799,381</u></u>	<u><u>\$ 11,916,193</u></u>

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**STATE BOARD OF INVESTMENT  
MINNESOTA SUPPLEMENTAL INVESTMENT FUND  
SCHEDULE OF ASSETS AND LIABILITIES  
JUNE 30, 1996  
AMOUNT IN ('000)'S**

	<u>INCOME SHARE ACCOUNT</u>	<u>GROWTH SHARE ACCOUNT</u>	<u>MONEY MARKET ACCOUNT</u>
<b>ASSETS:</b>			
Investments (at market value) (2)			
Common Stock	\$ 241,082	\$ 149,109	\$ 0
Alternative Equities	0	0	0
Fixed Income Securities	113,056	0	0
Short Term Securities	34,841	7,673	50,051
Total Investments (3)	<u>\$ 388,979</u>	<u>\$ 156,782</u>	<u>\$ 50,051</u>
Cash	0	0	0
Security Sales Receivable	0	0	0
Account Receivable- Fee Refunds	0	0	0
Account Receivable-Mortality	0	0	0
Account Receivable-Participants	0	0	0
Accrued Interest	1,505	0	0
Accrued Dividend	0	0	0
Accrued Short Term Gain	161	35	225
TOTAL ASSETS	<u>\$ 390,645</u>	<u>\$ 156,817</u>	<u>\$ 50,276</u>
<b>LIABILITIES:</b>			
Management Fees Payable	18	57	1
Security Purchases Payable	1,999	0	0
Accounts Payable-Participants	0	0	0
Options Premiums Received	0	0	0
TOTAL LIABILITIES	<u>\$ 2,017</u>	<u>\$ 57</u>	<u>\$ 1</u>
NET ASSETS AT JUNE 30, 1996	<u><u>\$ 388,628</u></u>	<u><u>\$ 156,760</u></u>	<u><u>\$ 50,275</u></u>

<u>STOCK INDEX ACCOUNT</u>	<u>INTERNATIONAL SHARE ACCOUNT</u>	<u>BOND MARKET ACCOUNT</u>	<u>FIXED INTEREST ACCOUNT</u>	<u>SUPPLEMENTAL INVESTMENT FUND TOTAL</u>
\$ 95,883	\$ 13,758	\$ 0	\$ 0	\$ 499,832
0	0	0	0	0
0	0	24,475	68,591	206,122
0	0	0	757	93,322
<u>\$ 95,883</u>	<u>\$ 13,758</u>	<u>\$ 24,475</u>	<u>\$ 69,348</u>	<u>\$ 799,276</u>
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	292	1,797
0	0	0	0	0
0	0	0	5	426
<u>\$ 95,883</u>	<u>\$ 13,758</u>	<u>\$ 24,475</u>	<u>\$ 69,645</u>	<u>\$ 801,499</u>
6	7	10	20	119
0	0	0	0	1,999
0	0	0	0	0
0	0	0	0	0
<u>\$ 6</u>	<u>\$ 7</u>	<u>\$ 10</u>	<u>\$ 20</u>	<u>\$ 2,118</u>
<u>\$ 95,877</u>	<u>\$ 13,751</u>	<u>\$ 24,465</u>	<u>\$ 69,625</u>	<u>\$ 799,381</u>

**STATE BOARD OF INVESTMENT  
MINNESOTA SUPPLEMENTAL INVESTMENT FUND  
COMBINING STATEMENT OF CHANGES IN NET ASSETS  
YEAR ENDED JUNE 30, 1996  
AMOUNT IN ( \$ '000)'S**

	<u>INCOME SHARE ACCOUNT</u>	<u>GROWTH SHARE ACCOUNT</u>	<u>MONEY MARKET ACCOUNT</u>
<b>FROM INVESTMENT ACTIVITY:</b>			
Net Investment Income	\$ 54,917	\$ 23,459	\$ 3,008
Realized Gains (Losses)	67,132	0	0
Unrealized Gains (Losses)	(63,622)	7,451	0
<b>TOTAL INCOME</b>	<u>58,427</u>	<u>30,910</u>	<u>3,008</u>
Less Distributions to participants Accounts ( \$ 58,427)	( \$ 58,427)	( \$ 30,910)	( \$ 3,008)
Undistributed Dedicated Income	<u>0</u>	<u>0</u>	<u>0</u>
Net Change In Undistributed Income	\$ 0	\$ 0	\$ 0
<b>FROM PARTICIPANT TRANSACTIONS:</b>			
<b>Additions To Participant Accounts</b>			
Participant Contributions	6,847	5,685	652
Income Distributions	58,427	30,910	3,008
Income To Be Distributed	0	0	0
<b>Total Additions</b>	<u>65,274</u>	<u>36,595</u>	<u>3,660</u>
<b>Deductions From Participant Accounts</b>			
Withdrawals	7,905	4,573	8,703
<b>Total Deductions</b>	<u>7,905</u>	<u>4,573</u>	<u>8,703</u>
Net change In Participation	<u>\$ 57,369</u>	<u>\$ 32,022</u>	<u>( \$ 5,043)</u>
<b>TOTAL CHANGE IN ASSETS</b>	<u>\$ 57,369</u>	<u>\$ 32,022</u>	<u>( \$ 5,043)</u>
<b>NET ASSETS:</b>			
Beginning Of Period	<u>\$ 331,259</u>	<u>\$ 124,738</u>	<u>\$ 55,318</u>
End Of Period	<u>\$ 388,628</u>	<u>\$ 156,760</u>	<u>\$ 50,275</u>



STOCK INDEX ACCOUNT	INTERNATIONAL SHARE ACCOUNT	BOND MARKET ACCOUNT	FIXED INTEREST ACCOUNT	SUPPLEMENTAL INVESTMENT FUND TOTAL
\$ 15,275	\$ 609	\$ 1,903	\$ 3,490	\$ 102,661
12,763	29	62	447	80,433
(9,828)	1,111	(746)	173	(65,461)
18,210	1,749	1,219	4,110	117,633
( \$ 18,210)	( \$ 1,749)	( \$ 1,219)	( \$ 4,095)	( \$ 117,618)
0	0	0	0	0
\$ 0	\$ 0	\$ 0	\$ 15	\$ 15
11,186	3,195	2,126	2,033	31,724
18,210	1,749	1,219	4,095	117,618
0	0	0	0	0
29,396	4,944	3,345	6,128	149,342
639	651	1,061	9,385	32,917
639	651	1,061	9,385	32,917
\$ 28,757	\$ 4,293	\$ 2,284	( \$ 3,257)	\$ 116,425
\$ 28,757	\$ 4,293	\$ 2,284	( \$ 3,242)	\$ 116,440
\$ 67,120	\$ 9,458	\$ 22,181	\$ 72,867	\$ 682,941
\$ 95,877	\$ 13,751	\$ 24,465	\$ 69,625	\$ 799,381

STATE BOARD OF INVESTMENT  
MINNESOTA SUPPLEMENTAL INVESTMENT FUND  
COMBINING STATEMENT OF OPERATIONS  
YEAR ENDED JUNE 30, 1996  
AMOUNT IN ( \$ '000)'S

	<u>INCOME SHARE ACCOUNT</u>	<u>GROWTH SHARE ACCOUNT</u>	<u>MONEY MARKET ACCOUNT</u>
<b>INVESTMENT INCOME:</b>			
Interest	\$ 6,315	\$ 0	\$ 0
Dividends	46,786	23,431	0
Short Term Gains	<u>1,885</u>	<u>425</u>	<u>3,012</u>
Income Before Expenses	54,986	23,856	3,012
Management Fees	<u>\$ 69</u>	<u>\$ 397</u>	<u>\$ 4</u>
NET INCOME	<u><u>\$ 54,917</u></u>	<u><u>\$ 23,459</u></u>	<u><u>\$ 3,008</u></u>
 <b>REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS</b>			
Realized:			
Proceeds From Sales	\$ 238,243	\$ 0	\$ 0
Cost Of Securities Sold	<u>171,111</u>	<u>0</u>	<u>0</u>
Net Realized Gain (Loss)	<u>67,132</u>	<u>0</u>	<u>0</u>
Unrealized:			
Beginning Of Period	\$ 70,312	\$ 24,017	\$ 0
End Of Period	<u>\$ 6,690</u>	<u>\$ 31,468</u>	<u>\$ 0</u>
Increase (decrease) In			
Unrealized Appreciation	(63,622)	7,451	0
NET REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS	<u><u>\$ 3,510</u></u>	<u><u>\$ 7,451</u></u>	<u><u>\$ 0</u></u>

<b>STOCK INDEX ACCOUNT</b>	<b>INTERNATIONAL SHARE ACCOUNT</b>	<b>BOND MARKET ACCOUNT</b>	<b>FIXED INTEREST ACCOUNT</b>	<b>SUPPLEMENTAL INVESTMENT FUND TOTAL</b>
\$ 0	\$ 0	\$ 1,941	\$ 3,354	\$ 11,610
15,296	633	0	0	86,146
0	(2)	0	211	5,531
15,296	631	1,941	3,565	103,287
\$ 21	\$ 22	\$ 38	\$ 75	\$ 626
\$ 15,275	\$ 609	\$ 1,903	\$ 3,490	\$ 102,661
\$ 67,768	\$ 653	\$ 1,063	\$ 24,231	\$ 331,958
55,005	624	1,001	23,784	251,525
12,763	29	62	447	80,433
\$ 12,689	( \$ 74)	\$ 547	\$ 277	\$ 107,768
\$ 2,861	\$ 1,037	( \$ 199)	\$ 450	\$ 42,307
(9,828)	1,111	(746)	173	(65,461)
\$ 2,935	\$ 1,140	( \$ 684)	\$ 620	\$ 14,972



STATE BOARD OF INVESTMENT  
MINNESOTA SUPPLEMENTAL INVESTMENT FUND  
SCHEDULE OF PARTICIPATION  
JUNE 30, 1996  
AMOUNT IN ( \$ '000)'S

	<u>INCOME SHARE ACCOUNT</u>	<u>GROWTH SHARE ACCOUNT</u>	<u>MONEY MARKET ACCOUNT</u>
<b>PARTICIPATION</b>			
Adrian Fire	\$ 53	\$ 0	\$ 0
Alborn Fire	15	0	0
Almelund Fire	15	13	0
Audubon Fire	63	0	0
Austin Fire	1,119	0	0
Austin Part-time Fire	21	9	0
Bagley Fire	14	0	70
Balsam Fire	42	22	0
Belle Plaine Fire	0	24	0
Bemidji Fire	0	0	0
Benson Fire	21	21	0
Bigfork Fire	5	11	0
Bloomington Fire	13,365	0	0
Brooten Fire	0	0	0
Buffalo Lake Fire	31	37	0
Canby Fire	28	31	0
Carlton Fire	0	14	0
Center City Fire	34	5	0
Chaska Fire	320	0	0
Cherry Fire	29	0	0
Chisago City Fire	196	0	0
Chokio Fire	58	0	0
Clarkfield Fire	13	0	0
Clear Lake Fire	38	44	55
Crane Lake Fire	9	5	5
Dawson Fire	96	69	0
Deerwood Fire	52	0	0
Edgerton Fire	41	0	0
Edina Fire	208	0	0
Elbow Lake Fire	94	0	0
Emmons Fire	20	16	0
Excelsior Fire	646	85	0
Farmington Cataract	39	0	0
Forest Lake Fire	359	40	0
Golden Valley Fire	514	0	0
Good Thunder Fire	70	23	0
Grand Marias Fire	3	3	5
Greenwood Fire	7	27	0

STOCK INDEX ACCOUNT	INTERNATIONAL SHARE ACCOUNT	BOND MARKET ACCOUNT	FIXED INTEREST ACCOUNT	SUPPLEMENTAL INVESTMENT FUND TOTAL
\$ 0	\$ 0	\$ 0	\$ 0	\$ 53
2	0	13	0	30
0	0	0	0	28
0	0	0	0	63
0	0	0	0	1,119
0	0	0	0	30
0	0	38	0	122
0	0	0	0	64
0	0	0	0	24
0	0	125	0	125
21	0	19	0	82
11	7	20	0	54
896	0	0	0	14,261
61	0	0	0	61
0	0	0	0	68
0	0	0	0	59
14	14	0	0	42
0	4	0	0	43
0	0	0	0	320
0	0	0	0	29
0	0	86	0	282
0	0	0	0	58
5	0	0	0	18
0	0	0	0	137
0	0	0	0	19
0	0	0	0	165
0	0	0	0	52
0	0	0	0	41
0	0	0	0	208
0	0	0	0	94
16	5	0	0	57
0	117	48	0	896
38	0	0	0	77
112	0	0	0	511
514	0	44	0	1,072
24	6	0	0	123
0	0	10	0	21
0	0	6	0	40

STATE BOARD OF INVESTMENT  
MINNESOTA SUPPLEMENTAL INVESTMENT FUND  
SCHEDULE OF PARTICIPATION  
JUNE 30, 1996  
AMOUNT IN ( \$ '000)'S

	INCOME SHARE ACCOUNT	GROWTH SHARE ACCOUNT	MONEY MARKET ACCOUNT
Grey Eagle Fire	32	0	7
Hackensack Fire	18	0	0
Hamel Fire	78	0	12
Hawley Fire	11	0	0
Hayward Fire	21	27	0
Hector Fire	187	0	0
Henning Fire	22	11	0
Industrial Fire	14	0	0
Jackson Fire	0	0	0
Jordan Fire	31	24	0
Kabetogama Fire	0	28	0
Kandiyohi Fire	6	7	0
Lafayette Fire	61	11	0
Lake City Fire	230	0	0
Lakeville	0	0	0
Leaf Valley Fire	7	7	0
Lewiston Fire	14	15	0
Linwood Fire	225	0	0
Lowry Fire	0	0	0
Mahtomedi Fire	95	0	0
Mapleton Fire	28	10	0
Mapleview Fire	15	29	0
Marine St Croix Fire	39	55	0
Mayer Fire	26	0	0
Maynard Fire	30	0	0
McDavitt Fire	14	7	0
McIntosh Fire	9	10	0
Medicine Lake Fire	209	0	0
Menahga Fire	25	0	0
Milan Fire	5	5	0
Minneota Fire	10	0	0
Minnetonka Fire	1,703	0	0
Morris Fire	0	38	0
Morristown Fire	97	0	0
New Brighton Fire	0	760	0
New Ulm Fire	0	0	0
Nodine Fire	0	0	0
North Branch Fire	11	12	0
North Mankato Fire	32	33	0
Northfield Fire	348	0	0



STOCK INDEX ACCOUNT	INTERNATIONAL SHARE ACCOUNT	BOND MARKET ACCOUNT	FIXED INTEREST ACCOUNT	SUPPLEMENTAL INVESTMENT FUND TOTAL
0	0	0	0	39
0	0	0	0	18
0	0	0	0	90
8	0	0	0	19
33	0	0	0	81
0	0	0	0	187
23	16	15	0	87
0	0	12	0	26
51	0	0	0	51
0	0	13	0	68
0	0	0	0	28
7	0	6	0	26
14	0	6	0	92
0	0	0	0	230
107	0	0	0	107
0	0	0	0	14
0	0	0	0	29
0	0	0	0	225
15	0	0	0	15
0	0	0	0	95
0	0	0	0	38
0	0	18	0	62
0	0	19	0	113
44	0	0	0	70
0	0	0	0	30
0	0	11	0	32
10	0	0	0	29
29	0	0	0	238
0	0	25	0	50
5	0	4	0	19
0	0	8	0	18
0	0	0	0	1,703
38	17	0	0	93
170	0	0	0	267
0	0	675	0	1,435
126	0	0	0	126
10	4	12	0	26
12	6	0	0	41
67	0	0	0	132
0	0	0	0	348

**STATE BOARD OF INVESTMENT**  
**MINNESOTA SUPPLEMENTAL INVESTMENT FUND**  
**SCHEDULE OF PARTICIPATION**  
**JUNE 30, 1996**  
**AMOUNT IN ( \$ '000)'S**

	<b>INCOME SHARE ACCOUNT</b>	<b>GROWTH SHARE ACCOUNT</b>	<b>MONEY MARKET ACCOUNT</b>
Norwood Fire	13	0	0
Osakis Fire	0	29	0
Ottertail Fire	65	0	0
Pine Island Fire	56	28	0
Randall Fire	0	68	0
Randolph Fire	54	0	0
Redwood Falls Fire	30	15	0
Renville Fire	14	15	0
Roseville Fire	203	146	0
Rush City Fire	18	19	0
Sandstone Fire	78	0	0
Scandia Valley Fire	104	0	0
Schroeder Fire	0	6	0
Shakopee Fire	0	84	0
Sherburn Fire	70	0	0
Silver Bay Fire	15	16	0
Stewart Fire	22	0	0
St. James Fire	0	18	0
Stillwater Fire	89	56	0
Vergas Fire	51	0	0
Vermillion Lake Fire	31	0	0
Winnebago Fire	14	0	0
Woodbury Fire	705	386	50
Wykoff Fire	48	0	0
Zumbro Falls Fire	57	0	0
<b>Total Fire Relief Associations</b>	<b>\$ 23,028</b>	<b>\$ 2,474</b>	<b>\$ 204</b>
<b>Deferred Compensation Plan</b>	<b>105,288</b>	<b>61,647</b>	<b>30,344</b>
<b>Unclassified Employees Plan</b>	<b>79,931</b>	<b>27,353</b>	<b>10,265</b>
<b>PERA- DCP</b>	<b>2,816</b>	<b>1,320</b>	<b>509</b>
<b>Hennepin County Supplemental Plan</b>	<b>43,802</b>	<b>18,781</b>	<b>4,701</b>
<b>MNSCU Plans</b>	<b>133,763</b>	<b>45,185</b>	<b>4,253</b>
<b>TOTAL PARTICIPATION</b>	<b>\$ 388,628</b>	<b>\$ 156,760</b>	<b>\$ 50,276</b>
<b>Adjustments</b>			
<b>Unrealized Appreciation</b>			
<b>(Depreciation) of Investments</b>	0	0	0
<b>Undistributed Earnings</b>	0	0	(1)
<b>NET ASSETS</b>	<b>\$ 388,628</b>	<b>\$ 156,760</b>	<b>\$ 50,275</b>

STOCK INDEX ACCOUNT	INTERNATIONAL SHARE ACCOUNT	BOND MARKET ACCOUNT	FIXED INTEREST ACCOUNT	SUPPLEMENTAL INVESTMENT FUND TOTAL
0	0	0	0	13
29	0	0	0	58
0	0	0	0	65
0	0	0	0	84
13	34	0	0	115
60	0	0	0	114
15	0	16	0	76
0	0	12	0	41
162	0	0	0	511
46	0	0	0	83
0	0	0	0	78
0	0	0	0	104
0	0	0	0	6
84	29	0	0	197
0	0	0	0	70
0	8	0	0	39
0	0	0	0	22
0	0	0	0	18
0	0	0	0	145
0	0	0	0	51
0	0	0	0	31
0	0	0	0	14
304	75	136	0	1,656
0	0	0	0	48
0	0	0	0	57
\$ 3,196	\$ 342	\$ 1,397	\$ 0	\$ 30,641
64,200	7,485	13,817	57,146	339,927
15,751	4,085	4,746	8,578	150,709
938	47	415	770	6,815
6,657	825	1,526	0	76,292
5,135	967	2,564	3,151	195,018
\$ 95,877	\$ 13,751	\$ 24,465	\$ 69,645	\$ 799,402
0	0	0	0	0
0	0	0	(20)	(21)
\$ 95,877	\$ 13,751	\$ 24,465	\$ 69,625	\$ 799,381



**STATE BOARD OF INVESTMENT  
MINNESOTA POOLED INVESTMENT ACCOUNTS  
SCHEDULE OF ASSETS AND LIABILITIES  
JUNE 30, 1996  
AMOUNTS IN (000)'S**

	<b>REAL ESTATE ACCOUNT</b>	<b>RESOURCE ACCOUNT</b>
<b>ASSETS:</b>		
Investments (at market value) (2)		
Common Stock	\$ 0	\$ 0
Alternative Equities	506,510	108,091
Fixed Income Securities	0	0
Short Term Securities	0	0
Total Investments (3)	\$ 506,510	\$ 108,091
 Cash	 852	 0
Security Sales Receivable	0	0
Accounts Receivable-Fee Refunds	0	0
Accounts Receivable-Mortality	0	0
Accounts Receivable-Participants	0	0
Accrued Interest	0	0
Accrued Dividends	2,918	0
Accrued Short Term Gain	1	0
TOTAL ASSETS	\$ 510,281	\$ 108,091
 <b>LIABILITIES:</b>		
Management Fees Payable	0	0
Security Purchases Payable	0	0
Accounts Payable-Participants	0	0
Options Premiums Received	0	0
TOTAL LIABILITIES	\$ 0	\$ 0
 NET ASSETS AT JUNE 30, 1996	 \$ 510,281	 \$ 108,091

<b>VENTURE CAPITAL ACCOUNT(4)</b>	<b>DOMESTIC BOND ACCOUNT</b>	<b>DOMESTIC EQUITY ACCOUNT</b>	<b>INTERNATIONAL EQUITY ACCOUNT</b>
\$ 0	\$ 20,758	\$ 13,233,790	\$ 3,443,011
679,302	0	0	0
0	6,356,980	8,285	15,594
29,133	772,136	187,175	147,124
<u>\$ 708,435</u>	<u>\$ 7,149,874</u>	<u>\$ 13,429,250</u>	<u>\$ 3,605,729</u>
2,306	2,233	(10)	30,837
2,885	280,108	34,918	3,539
0	0	0	0
0	0	0	0
0	0	0	0
0	84,335	85	80
21	0	18,279	9,084
51	3,850	801	4,389
<u>\$ 713,698</u>	<u>\$ 7,520,400</u>	<u>\$ 13,483,323</u>	<u>\$ 3,653,658</u>
0	1,626	3,510	1,970
0	798,763	36,084	24,453
0	0	0	0
0	0	0	0
<u>\$ 0</u>	<u>\$ 800,389</u>	<u>\$ 39,594</u>	<u>\$ 26,423</u>
<u><u>\$ 713,698</u></u>	<u><u>\$ 6,720,011</u></u>	<u><u>\$ 13,443,729</u></u>	<u><u>\$ 3,627,235</u></u>

STATE BOARD OF INVESTMENT  
MINNESOTA POOLED INVESTMENT ACCOUNTS  
SCHEDULE OF CHANGES IN NET ASSETS  
YEAR ENDED JUNE 30, 1996  
AMOUNTS IN (000)'S

	<u>REAL ESTATE ACCOUNT</u>	<u>RESOURCE ACCOUNT</u>
<b>FROM INVESTMENT ACTIVITY:</b>		
Net Investment Income	\$ 16,311	\$ 4,225
Realized Gains (Losses)	698	0
Unrealized Gains (Losses)	202	7,547
<b>TOTAL INCOME</b>	<b>\$ 17,211</b>	<b>\$ 11,772</b>
 Less Distribution To		
Participant Accounts	(16,613)	(4,225)
Undistributed Dedicated Income	(396)	0
<b>Net Change In Undistributed Income</b>	<b>\$ 202</b>	<b>\$ 7,547</b>
 <b>FROM PARTICIPANT TRANSACTIONS:</b>		
Additional To Participant Accounts		
Participant Contributions	44,519	10,529
Income Distribution	16,613	4,225
Income To Be Distributed	396	0
<b>Total Additions</b>	<b>\$ 61,528</b>	<b>\$ 14,754</b>
Deductions From Participant Accounts		
Withdrawals	25,454	14,142
<b>Total Deductions</b>	<b>\$ 25,454</b>	<b>\$ 14,142</b>
<b>Net Change In Participation</b>	<b>\$ 36,074</b>	<b>\$ 612</b>
<b>TOTAL CHANGE IN ASSETS</b>	<b>\$ 36,276</b>	<b>\$ 8,159</b>
 <b>NET ASSETS:</b>		
Beginning Of Period	474,005	99,932
<b>End Of Period</b>	<b>\$ 510,281</b>	<b>\$ 108,091</b>

VENTURE CAPITAL ACCOUNT(4)	DOMESTIC BOND ACCOUNT	DOMESTIC EQUITY ACCOUNT	INTERNATIONAL EQUITY ACCOUNT
\$ 11,693	\$ 483,578	\$ 248,995	\$ 93,626
148,728	62,453	1,973,571	41,605
62,731	(186,474)	667,457	280,479
\$ 223,152	\$ 359,557	\$ 2,890,023	\$ 415,710
(160,520)	(543,906)	(2,221,456)	(129,261)
99	(2,125)	93,537	(5,970)
\$ 62,731	(\$ 186,474)	\$ 762,104	\$ 280,479
80,526	123,653	7,797,809	1,444,497
160,520	543,906	2,126,809	129,261
(99)	2,125	1,110	5,970
\$ 240,947	\$ 669,684	\$ 9,925,728	\$ 1,579,728
151,254	468,912	8,596,822	304,327
\$ 151,254	\$ 468,912	\$ 8,596,822	\$ 304,327
\$ 89,693	\$ 200,772	\$ 1,328,906	\$ 1,275,401
\$ 152,424	\$ 14,298	\$ 2,091,010	\$ 1,555,880
561,274	6,705,713	11,352,719	2,071,355
\$ 713,698	\$ 6,720,011	\$ 13,443,729	\$ 3,627,235



**STATE BOARD OF INVESTMENT  
MINNESOTA POOLED INVESTMENT ACCCOUNTS  
SCHEDULE OF OPERATIONS  
YEAR ENDED JUNE 30, 1996  
AMOUNTS IN (000)'S**

	<b>REAL ESTATE ACCOUNT</b>	<b>RESOURCE ACCOUNT</b>
<b>INVESTMENT INCOME:</b>		
Interest	\$ 0	\$ 0
Dividends	16,286	4,214
Short Term Gains	25	11
Income Before Expenses	\$ 16,311	\$ 4,225
Management Fees	0	0
<b>NET INCOME</b>	<b>\$ 16,311</b>	<b>\$ 4,225</b>
 <b>REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS</b>		
<b>Realized:</b>		
Proceeds From Sales	\$ 20,689	\$ 0
Cost Of Securities Sold	19,991	0
Net Realized Gain (Loss)	\$ 698	\$ 0
<b>Unrealized:</b>		
Beginning Of Period	2,804	(2,800)
End Of Period	3,006	4,747
<b>Increase (Decrease)</b>		
In Unrealized Appreciation	\$ 202	\$ 7,547
<b>NET REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS</b>	<b>\$ 900</b>	<b>\$ 7,547</b>

VENTURE CAPITAL ACCOUNT(4)	DOMESTIC BOND ACCOUNT	DOMESTIC EQUITY ACCOUNT	INTERNATIONAL EQUITY ACCOUNT
\$ 0	\$ 426,105	\$ 309	\$ 516
11,364	(422)	252,417	57,598
329	64,835	18,191	41,163
\$ 11,693	\$ 490,518	\$ 270,917	\$ 99,277
0	6,940	21,922	5,651
\$ 11,693	\$ 483,578	\$ 248,995	\$ 93,626
\$ 361,076	\$ 24,153,461	\$ 11,411,401	\$ 451,461
212,348	24,091,008	9,437,830	409,856
\$ 148,728	\$ 62,453	\$ 1,973,571	\$ 41,605
109,862	175,912	2,099,089	280,013
172,593	(10,562)	2,766,546	560,492
\$ 62,731	(\$ 186,474)	\$ 667,457	\$ 280,479
\$ 211,459	(\$ 124,021)	\$ 2,641,028	\$ 322,084

STATE BOARD OF INVESTMENT  
MINNESOTA POOLED INVESTMENT ACCCOUNTS  
SCHEDULE OF PARTICIPATION  
JUNE 30, 1996  
AMOUNTS IN (000)'S

	<u>REAL ESTATE ACCOUNT</u>	<u>RESOURCE ACCOUNT</u>
<b>BASIC RETIREMENT FUNDS</b>		
Teachers Retirement Fund	\$ 221,493	\$ 46,918
Public Employees Retirement Fund	107,466	22,765
State Employees Retirement Fund	102,504	21,713
Public Employees Police & Fire Fund	50,556	10,709
Highway Patrolmen's Retirement Fund	7,291	1,545
Judges Retirement Fund	601	127
Police & Fire Consolidation Fund	14,816	3,138
Correctional Employees Retire. Fund	5,554	1,176
<b>TOTAL BASIC RETIREMENT FUNDS</b>	<u>\$ 510,281</u>	<u>\$ 108,091</u>
 Post Retirement Fund	 0	 0
Supplemental Income Share Account	0	0
Supplemental Growth Share Account	0	0
Supplemental Index Share Account	0	0
Supplemental Bond Market Account	0	0
Supplemental International Equity Account	0	0
 <b>TOTAL PARTICIPATION</b>	 <u><u>\$ 510,281</u></u>	 <u><u>\$ 108,091</u></u>

<u>VENTURE CAPITAL ACCOUNT(4)</u>	<u>DOMESTIC BOND ACCOUNT</u>	<u>DOMESTIC EQUITY ACCOUNT</u>	<u>INTERNATIONAL EQUITY ACCOUNT</u>
\$ 309,790	\$ 1,295,826	\$ 2,879,325	\$ 807,129
150,303	650,435	1,446,982	404,696
143,369	620,404	1,380,248	385,984
70,707	305,994	680,704	190,425
10,197	44,127	98,163	27,459
842	3,639	8,107	2,255
20,722	89,282	198,583	55,561
7,768	33,613	74,791	20,904
<u>\$ 713,698</u>	<u>\$ 3,043,320</u>	<u>\$ 6,766,903</u>	<u>\$ 1,894,413</u>
0	3,652,225	6,190,822	1,719,071
0	0	241,072	0
0	0	149,053	0
0	0	95,879	0
0	24,466	0	0
0	0	0	13,751
<u>\$ 713,698</u>	<u>\$ 6,720,011</u>	<u>\$ 13,443,729</u>	<u>\$ 3,627,235</u>



## NOTES TO THE SUPPLEMENTAL FINANCIAL STATEMENTS

### JUNE 30, 1996

#### 1. PORTFOLIO LISTING:

Asset listings summarizing securities held by these accounts can be found starting on page 141 of this report. Fixed income and equity securities are presented at market value.

#### 2. COST OF INVESTMENTS:

At June 30, 1996 the cost of investments for the Minnesota Pooled Investment Accounts and the individual accounts of the Minnesota Supplemental Investment Fund was:

##### DOMESTIC ACCOUNTS

Equity Account	\$ 10,662,703,142
Bond Account	\$ 7,160,435,842
Real Estate Account	\$ 503,503,293
Resource Account	\$ 103,344,718
Venture Capital Account	\$ 535,841,314

##### INTERNATIONAL ACCOUNTS

Equity Account	\$ 3,045,237,343
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##### SUPPLEMENTAL INVESTMENT FUND

Income Share Account	\$ 382,289,360
Growth Share Account	\$ 125,313,688
International Share Account	\$ 12,720,543
Money Market Account	\$ 50,050,740
Stock Index Account	\$ 93,021,793
Bond Market Account	\$ 24,673,339
Fixed Interest Account	\$ 68,897,116

#### 3. LOANED SECURITIES:

The market value of loaned securities outstanding at June 30, 1996 for the Minnesota Pooled Investment Accounts and the individual accounts of the Minnesota Supplemental Investment Fund was:

##### DOMESTIC ACCOUNTS

Equity Account	\$ 819,288,306
Bond Account	\$ 1,434,130,084

##### INTERNATIONAL ACCOUNTS

Equity Account	\$ 502,665,321
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## EXTERNAL STOCK AND BOND MANAGERS FEES

Total Payments for Fiscal Year 1996

### Active Domestic Stock Managers (1)

Alliance Capital	\$ 2,244,742
Brinson Partners	954,475
Forstmann Leff Associates	1,066,227
Franklin Portfolio Associates	1,289,822
GeoCapital Corp.	1,171,558
IDS Advisory	816,484
Independence Investment Associates	1,206,056
Investment Advisors Inc.	719,998
Jundt Associates *	1,105,018
Lincoln Capital	1,184,024
Lynch & Mayer *	-98,900
Oppenheimer Capital	1,063,164
Waddell & Reed	734,760
Weiss Peck & Greer	1,425,324
CIC Asset Management	222,787
Cohen, Davis & Marks	223,413
Compass Capital Management	207,013
Kennedy Capital Management	394,627
New Amsterdam Partners	161,253
Valenzuela Capital	226,254
Wilke Thompson Capital	241,028
Winslow Capital	282,632
Zevenbergen Capital	341,254

### Passive Domestic Stock Managers (2)

Wilshire Asset Management *	40,353
Wells Fargo Nikko	626,481

### Semi-Passive Domestic Equity Managers (2)

Franklin Portfolio	1,201,354
J P Morgan	1,435,452
Wells Fargo Nikko	1,435,658

### Active Domestic Bond Managers (2)

BEA Associates	686,209
IDS Advisory	329,232
Investment Advisors	722,752
Miller Anderson	1,010,650
Standish Ayer Woods	873,420
Trust Company of the West *	288,922
Western Asset Mgmt.	1,179,097

## EXTERNAL STOCK AND BOND MANAGERS FEES

Total Payments for Fiscal Year 1996

### Semi-Passive Domestic Bond Managers (3)

Blackrock Financial	\$ 183,585
Fidelity Management Trust *	284,836
Goldman Sachs	878,043
Lincoln Capital Management	454,649

### International Stock Managers (2)

Baring International	322,954
Brinson Partners International	475,699
Genesis	130,030
Marathon	875,187
Montgomery	200,528
Record Treasury Ltd.	390,071
Rowe Price - Fleming	1,229,907
Scudder Stevens	791,083
State Street Global Advisors	355,002
Templeton *	879,482

### Assigned Risk Plan

G E Investment Management	394,618
Voyageur Asset Management	403,454

\* Manager terminated during fiscal year 1996.

- (1) Active stock managers are compensated on a performance-based fee formula. Four fee options are available and fees earned range from zero to twice the manager's base fee, depending on the manager's performance relative to an established benchmark.
- (2) The passive stock manager, international stock managers, active bond managers and two semi-passive bond managers are compensated based on a specified percentage of assets under management.
- (3) One semi-passive bond manager is compensated on a performance-based fee formula. Fees earned range from 5 to 10 basis points of assets under management, depending on the manager's performance relative to an established benchmark.

# Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

## Alliance Capital Management

Equities	Market Value	%
Basic Industries	\$0.00	0.0%
Capital Goods	51,515,150.00	6.5
Consumer Basics	196,359,300.00	24.8
Consumer Durables	10,768,787.50	1.4
Consumer Non-Dur.	31,107,112.50	3.9
Consumer Services	102,634,400.00	12.9
Energy	0.00	0.0
Finance	169,319,370.37	21.4
General Business	44,785,701.00	5.6
Miscellaneous	8,559,500.00	1.1
Shelter	0.00	0.0
Technology	130,249,109.37	16.4
Transportation	7,974,275.00	1.0
Utilities	29,770,700.00	3.8
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>783,043,405.74</b>	<b>98.8</b>
<b>Cash Equivalents</b>	<b>9,842,750.41</b>	<b>1.2</b>
<b>Grand Total</b>	<b>\$792,886,156.15</b>	<b>100.0%</b>

## CIC Asset Management Inc.

Equities	Market Value	%
Basic Industries	\$7,938,384.37	17.3%
Capital Goods	2,601,412.50	5.7
Consumer Basics	3,135,862.50	6.8
Consumer Durables	3,043,416.75	6.7
Consumer Non-Dur.	2,856,800.00	6.2
Consumer Services	0.00	0.0
Energy	3,892,012.50	8.5
Finance	6,138,212.50	13.4
General Business	0.00	0.0
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	3,418,600.00	7.5
Transportation	1,062,000.00	2.3
Utilities	8,361,362.50	18.2
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>42,448,063.62</b>	<b>92.6</b>
<b>Cash Equivalents</b>	<b>3,388,698.93</b>	<b>7.4</b>
<b>Grand Total</b>	<b>\$45,836,762.55</b>	<b>100.0%</b>

## Brinson Partners

Equities	Market Value	%
Basic Industries	\$22,094,262.50	5.4%
Capital Goods	19,223,275.00	4.7
Consumer Basics	78,537,661.25	19.1
Consumer Durables	15,708,224.25	3.8
Consumer Non-Dur.	43,525,293.75	10.5
Consumer Services	5,183,925.00	1.3
Energy	21,986,775.00	5.3
Finance	88,929,867.62	21.5
General Business	28,206,720.18	6.8
Miscellaneous	1,751,076.25	0.4
Shelter	153,600.00	0.0
Technology	47,803,012.50	11.6
Transportation	16,772,675.00	4.1
Utilities	16,767,423.25	4.1
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>406,643,791.55</b>	<b>98.6</b>
<b>Cash Equivalents</b>	<b>5,923,856.65</b>	<b>1.4</b>
<b>Grand Total</b>	<b>\$412,567,648.20</b>	<b>100.0%</b>

## Cohen, Klingenstein & Marks, Inc.

Equities	Market Value	%
Basic Industries	\$2,104,625.00	4.4%
Capital Goods	1,703,625.00	3.5
Consumer Basics	9,862,475.00	20.5
Consumer Durables	1,554,000.00	3.2
Consumer Non-Dur.	4,958,720.75	10.3
Consumer Services	4,603,800.00	9.6
Energy	0.00	0.0
Finance	11,196,838.62	23.3
General Business	0.00	0.0
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	11,894,921.87	24.7
Transportation	0.00	0.0
Utilities	0.00	0.0
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>47,879,006.24</b>	<b>99.4</b>
<b>Cash Equivalents</b>	<b>286,545.78</b>	<b>0.6</b>
<b>Grand Total</b>	<b>\$48,165,552.02</b>	<b>100.0%</b>



# Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

## Compass Capital Management Inc.

Equities	Market Value	%
Basic Industries	\$7,351,637.50	15.6%
Capital Goods	1,811,787.50	3.9
Consumer Basics	13,157,925.00	27.9
Consumer Durables	3,693,812.50	7.8
Consumer Non-Dur.	5,717,950.00	12.1
Consumer Services	0.00	0.0
Energy	0.00	0.0
Finance	3,641,400.00	7.7
General Business	5,519,750.00	11.7
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	5,477,975.00	11.6
Transportation	0.00	0.0
Utilities	0.00	0.0
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>46,372,237.50</b>	<b>98.3</b>
<b>Cash Equivalents</b>	<b>805,382.39</b>	<b>1.7</b>
<b>Grand Total</b>	<b>\$47,177,619.89</b>	<b>100.0%</b>

## Franklin Portfolio Associates

Equities	Market Value	%
Basic Industries	\$26,301,743.75	4.8%
Capital Goods	25,108,537.50	4.6
Consumer Basics	84,035,381.75	15.4
Consumer Durables	11,408,000.00	2.1
Consumer Non-Dur.	54,382,650.00	10.0
Consumer Services	33,185,362.50	6.1
Energy	41,033,212.50	7.5
Finance	120,521,101.25	22.1
General Business	15,789,937.50	2.9
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	55,841,337.50	10.2
Transportation	0.00	0.0
Utilities	74,989,112.50	13.7
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>542,596,376.75</b>	<b>99.4</b>
<b>Cash Equivalents</b>	<b>2,981,929.92</b>	<b>0.6</b>
<b>Grand Total</b>	<b>\$545,578,306.67</b>	<b>100.0%</b>

## Forstmann-Leff Associates

Equities	Market Value	%
Basic Industries	\$23,358,534.37	5.3%
Capital Goods	9,969,187.50	2.3
Consumer Basics	60,469,223.71	13.7
Consumer Durables	4,330,968.75	1.0
Consumer Non-Dur.	57,666,178.74	13.1
Consumer Services	56,786,487.87	12.9
Energy	39,322,756.24	8.9
Finance	46,675,184.37	10.5
General Business	27,840,143.75	6.3
Miscellaneous	8,088,075.00	1.8
Shelter	0.00	0.0
Technology	55,303,386.86	12.5
Transportation	10,426,587.50	2.4
Utilities	16,331,700.00	3.7
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>416,568,414.66</b>	<b>94.4</b>
<b>Cash Equivalents</b>	<b>24,484,151.71</b>	<b>5.6</b>
<b>Grand Total</b>	<b>\$441,052,566.37</b>	<b>100.0%</b>

## GeoCapital

Equities	Market Value	%
Basic Industries	\$5,576,875.00	1.5%
Capital Goods	3,644,062.50	1.0
Consumer Basics	40,808,631.87	11.0
Consumer Durables	0.00	0.0
Consumer Non-Dur.	26,151,562.50	7.0
Consumer Services	42,248,927.25	11.4
Energy	4,117,000.00	1.1
Finance	51,055,100.75	13.7
General Business	86,645,793.25	23.3
Miscellaneous	11,513,781.25	3.1
Shelter	0.00	0.0
Technology	96,059,772.18	25.8
Transportation	2,012,013.62	0.5
Utilities	0.00	0.0
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>369,833,520.17</b>	<b>99.4</b>
<b>Cash Equivalents</b>	<b>2,342,492.79</b>	<b>0.6</b>
<b>Grand Total</b>	<b>\$372,176,012.96</b>	<b>100.0%</b>

# Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

## Investment Advisors Inc.

Equities	Market Value	%
Basic Industries	\$13,269,528.12	7.9%
Capital Goods	18,875,387.50	11.3
Consumer Basics	24,306,555.75	14.5
Consumer Durables	5,993,087.50	3.6
Consumer Non-Dur.	8,006,525.00	4.8
Consumer Services	3,226,625.00	1.9
Energy	2,619,975.00	1.6
Finance	16,377,025.00	9.8
General Business	15,833,950.00	9.4
Miscellaneous	9,104,775.00	5.4
Shelter	3,202,837.50	1.9
Technology	15,315,493.75	9.1
Transportation	13,263,212.50	7.9
Utilities	2,774,400.00	1.6
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>152,169,377.62</b>	<b>90.7</b>
<b>Cash Equivalents</b>	<b>15,631,427.78</b>	<b>9.3</b>
<b>Grand Total</b>	<b>\$167,800,805.40</b>	<b>100.0%</b>

## Independence Investment Associates

Equities	Market Value	%
Basic Industries	\$27,718,112.50	5.0%
Capital Goods	30,320,750.00	5.5
Consumer Basics	119,028,780.25	21.7
Consumer Durables	27,439,650.00	5.0
Consumer Non-Dur.	46,352,012.50	8.4
Consumer Services	995,400.00	0.2
Energy	65,363,989.12	11.9
Finance	81,041,450.00	14.7
General Business	3,521,725.00	0.6
Miscellaneous	3,425,125.00	0.6
Shelter	0.00	0.0
Technology	77,261,002.50	14.1
Transportation	2,598,750.00	.5
Utilities	61,589,700.00	11.2
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>546,656,446.87</b>	<b>99.4</b>
<b>Cash Equivalents</b>	<b>3,045,849.53</b>	<b>0.6</b>
<b>Grand Total</b>	<b>\$549,702,296.40</b>	<b>100.0%</b>

## IDS Advisory Group

Equities	Market Value	%
Basic Industries	\$68,022,162.50	12.4%
Capital Goods	43,092,937.50	7.9
Consumer Basics	86,560,655.00	15.8
Consumer Durables	19,242,400.00	3.5
Consumer Non-Dur.	30,026,387.50	5.5
Consumer Services	10,556,000.00	1.9
Energy	16,550,100.00	3.0
Finance	63,389,012.50	11.6
General Business	5,916,137.50	1.1
Miscellaneous	12,566,725.00	2.3
Shelter	6,677,400.00	1.2
Technology	147,519,159.06	27.0
Transportation	10,243,500.00	1.9
Utilities	16,183,725.00	3.0
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>536,546,301.56</b>	<b>98.1</b>
<b>Cash Equivalents</b>	<b>10,540,340.29</b>	<b>1.9</b>
<b>Grand Total</b>	<b>\$547,086,641.85</b>	<b>100.0%</b>

## Jundt Associates

Equities	Market Value	%
Basic Industries	\$0.00	0.0%
Capital Goods	4,941,000.00	2.6
Consumer Basics	39,246,712.50	20.2
Consumer Durables	0.00	0.0
Consumer Non-Dur.	32,382,837.50	16.7
Consumer Services	4,910,750.00	2.5
Energy	5,760,050.00	0.0
Finance	0.00	3.0
General Business	31,367,968.25	16.1
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	56,054,506.25	28.8
Transportation	0.00	0.0
Utilities	12,715,812.50	6.5
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>187,379,637.00</b>	<b>96.4</b>
<b>Total Fixed Income</b>	<b>2,925,615.00</b>	<b>1.5</b>
<b>Cash Equivalents</b>	<b>4,052,373.07</b>	<b>2.1</b>
<b>Grand Total</b>	<b>\$194,357,625.07</b>	<b>100.0%</b>

# Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

## Kennedy Capital Management

Equities	Market Value	%
Basic Industries	\$3,598,925.00	7.9%
Capital Goods	5,304,580.50	11.6
Consumer Basics	7,481,862.30	16.4
Consumer Durables	1,452,087.50	3.2
Consumer Non-Dur.	1,603,644.50	3.5
Consumer Services	338,898.75	0.8
Energy	1,929,968.75	4.2
Finance	2,428,234.87	5.3
General Business	4,332,023.75	9.5
Miscellaneous	8,640,684.05	18.9
Shelter	1,434,087.50	3.2
Technology	3,716,675.00	8.1
Transportation	1,259,809.37	2.8
Utilities	824,700.00	1.8
All Non U.S.	218,047.32	0.5
<b>Total Equities</b>	<b>44,564,229.16</b>	<b>97.6</b>
<b>Fixed Income</b>	<b>737,800.00</b>	<b>1.6</b>
<b>Cash Equivalents</b>	<b>383,998.31</b>	<b>0.8</b>
<b>Grand Total</b>	<b>\$45,686,027.47</b>	<b>100.0%</b>

## New Amsterdam Partners

Equities	Market Value	%
Basic Industries	\$3,595,000.00	8.6%
Capital Goods	2,248,250.00	5.4
Consumer Basics	10,336,543.00	24.8
Consumer Durables	1,715,760.00	4.1
Consumer Non-Dur.	5,547,278.12	13.3
Consumer Services	928,175.00	2.2
Energy	1,642,750.00	3.9
Finance	7,133,062.50	17.1
General Business	1,395,000.00	3.4
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	3,358,612.50	8.0
Transportation	936,375.00	2.2
Utilities	2,717,500.00	6.5
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>41,554,306.12</b>	<b>99.5</b>
<b>Cash Equivalents</b>	<b>218,160.76</b>	<b>0.5</b>
<b>Grand Total</b>	<b>\$41,772,466.88</b>	<b>100.0%</b>

## Lincoln Capital Management

Equities	Market Value	%
Basic Industries	\$24,332,150.00	5.7%
Capital Goods	1,254,937.50	0.3
Consumer Basics	169,652,089.25	40.1
Consumer Durables	0.00	0.0
Consumer Non-Dur.	28,531,854.50	6.7
Consumer Services	26,133,250.00	6.2
Energy	1,184,687.50	0.3
Finance	39,426,887.50	9.3
General Business	16,001,729.25	3.8
Miscellaneous	7,046,625.00	1.7
Shelter	0.00	0.0
Technology	75,249,643.75	17.8
Transportation	0.00	0.0
Utilities	20,757,075.00	4.9
All Non-U.S.	8,216,234.53	1.9
<b>Total Equities</b>	<b>417,787,163.78</b>	<b>98.7</b>
<b>Cash Equivalents</b>	<b>5,717,408.41</b>	<b>1.3</b>
<b>Grand Total</b>	<b>\$423,504,572.19</b>	<b>100.0%</b>

## Oppenheimer & Company

Equities	Market Value	%
Basic Industries	\$63,192,500.00	15.1%
Capital Goods	22,462,500.00	5.4
Consumer Basics	42,495,000.00	10.2
Consumer Durables	0.00	0.0
Consumer Non-Dur.	28,343,750.00	6.8
Consumer Services	9,100,000.00	2.1
Energy	8,180,000.00	2.0
Finance	156,433,125.00	37.5
General Business	11,759,375.00	2.8
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	46,787,187.50	11.2
Transportation	0.00	0.0
Utilities	12,600,000.00	3.0
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>401,353,437.50</b>	<b>96.1</b>
<b>Cash Equivalents</b>	<b>16,096,351.17</b>	<b>3.9</b>
<b>Grand Total</b>	<b>\$417,449,788.67</b>	<b>100.0%</b>

## Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

### Valenzuela Capital Management

Equities	Market Value	%
Basic Industries	\$4,468,587.50	10.3%
Capital Goods	1,386,450.00	3.2
Consumer Basics	2,959,437.50	6.8
Consumer Durables	1,267,875.00	2.9
Consumer Non-Dur.	10,097,237.50	23.3
Consumer Services	0.00	0.0
Energy	3,449,100.00	8.0
Finance	7,793,365.00	18.0
General Business	3,420,087.50	7.9
Miscellaneous	1,142,187.50	2.7
Shelter	0.00	0.0
Technology	4,934,212.50	11.4
Transportation	0.00	0.0
Utilities	0.00	0.0
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>40,918,540.00</b>	<b>94.5</b>
<b>Cash Equivalents</b>	<b>2,401,383.95</b>	<b>5.5</b>
<b>Grand Total</b>	<b>\$43,319,923.95</b>	<b>100%</b>

### Waddell & Reed

Equities	Market Value	%
Basic Industries	\$15,648,750.00	3.6%
Capital Goods	25,968,881.50	6.0
Consumer Basics	63,795,790.62	14.8
Consumer Durables	6,488,387.50	1.5
Consumer Non-Dur.	0.00	0.0
Consumer Services	0.00	0.0
Energy	21,404,100.00	5.0
Finance	23,816,887.50	5.5
General Business	67,692,450.00	15.7
Miscellaneous	14,119,137.50	3.3
Shelter	0.00	0.0
Technology	140,965,175.00	32.7
Transportation	0.00	0.0
Utilities	0.00	0.0
All Non-U.S.	0.00	0.0
<b>Total Equities</b>	<b>379,899,559.62</b>	<b>88.1</b>
<b>Fixed Income</b>	<b>3,276,937.50</b>	<b>0.7</b>
<b>Cash Equivalents</b>	<b>48,247,274.87</b>	<b>11.2</b>
<b>Grand Total</b>	<b>\$431,423,771.99</b>	<b>100%</b>

### Weiss Peck & Greer

Equities	Market Value	%
Basic Industries	\$4,595,500.00	1.4%
Capital Goods	9,467,775.00	2.9
Consumer Basics	60,470,848.37	18.5
Consumer Durables	5,857,500.00	1.8
Consumer Non-Dur.	24,638,575.00	7.6
Consumer Services	24,058,275.00	7.4
Energy	15,456,150.00	4.7
Finance	10,618,250.00	3.3
General Business	27,998,871.12	8.6
Miscellaneous	31,010,112.50	9.5
Shelter	0.00	0.0
Technology	95,244,975.50	29.2
Transportation	0.00	0.0
Utilities	5,979,862.50	1.8
All Non-U.S.	543,750.00	0.2
<b>Total Equities</b>	<b>315,940,444.99</b>	<b>96.9</b>
<b>Fixed Income</b>	<b>860,381.25</b>	<b>0.2</b>
<b>Cash Equivalents</b>	<b>9,366,424.43</b>	<b>2.9</b>
<b>Grand Total</b>	<b>\$326,167,250.67</b>	<b>100%</b>

### Wilke/Thompson Capital Mgmt.

Equities	Market Value	%
Basic Industries	\$0.00	0.0%
Capital Goods	0.00	0.0
Consumer Basics	\$6,492,887.50	14.0
Consumer Durables	983,625.00	2.1
Consumer Non-Dur.	5,096,530.25	11.0
Consumer Services	3,951,737.50	8.6
Energy	0.00	0.0
Finance	1,012,000.00	2.2
General Business	11,575,150.00	25.0
Miscellaneous	0.00	0.0
Shelter	1,922,700.00	4.2
Technology	14,795,325.00	32.0
Transportation	0.00	0.0
Utilities	0.00	0.0
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>45,829,955.25</b>	<b>99.1</b>
<b>Cash Equivalents</b>	<b>408,923.10</b>	<b>0.9</b>
<b>Grand Total</b>	<b>\$46,238,878.35</b>	<b>100%</b>



# Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

## Winslow Capital Management

Equities	Market Value	%
Basic Industries	\$0.00	0.0%
Capital Goods	852,235.50	1.9
Consumer Basics	11,008,450.00	24.9
Consumer Durables	0.00	0.0
Consumer Non-Dur.	6,797,505.00	15.4
Consumer Services	1,854,050.00	4.2
Energy	0.00	0.0
Finance	2,713,212.50	6.1
General Business	2,400,700.00	5.4
Miscellaneous	0.00	0.0
Shelter	0.00	0.0
Technology	13,202,893.75	29.9
Transportation	0.00	0.0
Utilities	3,864,125.00	8.7
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>42,693,171.75</b>	<b>96.5</b>
<b>Cash Equivalents</b>	<b>1,530,656.22</b>	<b>3.5</b>
<b>Grand Total</b>	<b>\$44,223,827.97</b>	<b>100%</b>

## Zevenbergen Capital Inc.

Equities	Market Value	%
Basic Industries	\$0.00	0.0%
Capital Goods	503,100.00	1.2
Consumer Basics	8,286,350.00	18.8
Consumer Durables	3,457,950.00	7.9
Consumer Non-Dur.	0.00	0.0
Consumer Services	685,337.50	1.6
Energy	793,650.00	1.8
Finance	6,430,743.75	14.6
General Business	11,717,798.37	26.6
Miscellaneous	1,056,450.00	2.4
Shelter	0.00	0.0
Technology	10,033,187.50	22.8
Transportation	0.00	0.0
Utilities	720,375.00	1.6
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>43,684,942.12</b>	<b>99.3</b>
<b>Cash Equivalents</b>	<b>320,325.23</b>	<b>0.7</b>
<b>Grand Total</b>	<b>\$44,005,267.35</b>	<b>100%</b>

## Barclay's Global Investors (Passive)

Equities	Market Value	%
Basic Industries	\$248,949,306.28	6.4%
Capital Goods	225,965,898.53	5.8
Consumer Basics	746,174,817.49	19.2
Consumer Durables	103,612,733.36	2.6
Consumer Non-Dur.	237,888,941.47	6.1
Consumer Services	113,900,797.28	2.9
Energy	267,491,212.20	6.9
Finance	606,509,636.19	15.6
General Business	228,044,817.62	5.9
Miscellaneous	95,739,750.37	2.5
Shelter	34,899,384.25	0.9
Technology	506,733,238.92	13.0
Transportation	51,190,799.41	1.3
Utilities	418,408,531.06	10.8
All Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>3,885,509,864.43</b>	<b>99.9</b>
<b>Fixed Income</b>	<b>115.46</b>	<b>0.0</b>
<b>Cash Equivalents</b>	<b>4,726,600.09</b>	<b>0.1</b>
<b>Grand Total</b>	<b>\$3,890,236,579.98</b>	<b>100.0%</b>

# Summarized Asset Listings - Domestic Stock Managers

As of June 30, 1996

## Franklin Portfolio Associates (Semi-Passive)

Equities	Market Value	%
Basic Industries	\$77,409,825.00	6.8%
Capital Goods	64,812,775.00	5.7
Consumer Basics	198,754,123.87	17.5
Consumer Durables	34,225,175.00	3.0
Consumer Non-Dur.	44,675,375.00	3.9
Consumer Services	24,940,991.50	2.2
Energy	114,832,262.50	10.1
Finance	235,273,128.50	20.7
General Business	38,820,025.00	3.4
Miscellaneous	16,414,062.50	1.5
Shelter	15,310,187.50	1.4
Technology	67,437,025.00	5.9
Transportation	0.00	0.0
Utilities	203,011,300.00	17.9
Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>1,135,916,256.37</b>	<b>100.0%</b>
<b>Cash Equivalents</b>	<b>327,329.64</b>	<b>0.0</b>
<b>Grand Total</b>	<b>\$1,136,243,586.01</b>	<b>100.0%</b>

## Barclay's Global Investors (Semi-Passive)

Equities	Market Value	%
Basic Industries	\$70,513,751.25	5.9%
Capital Goods	79,294,800.00	6.7
Consumer Basics	197,578,791.12	16.6
Consumer Durables	47,066,662.50	4.0
Consumer Non-Dur.	45,193,336.00	3.8
Consumer Services	29,562,935.00	2.5
Energy	111,634,487.50	9.4
Finance	234,871,207.73	19.8
General Business	28,021,045.50	2.4
Miscellaneous	11,018,237.50	0.9
Shelter	9,626,750.00	0.8
Technology	70,909,580.75	6.0
Transportation	2,805,924.50	0.2
Utilities	240,289,234.42	20.2
Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>1,178,386,743.77</b>	<b>99.2</b>
<b>Cash Equivalents</b>	<b>10,005,993.11</b>	<b>0.8</b>
<b>Grand Total</b>	<b>\$1,188,392,736.88</b>	<b>100.0%</b>

## J.P. Morgan Investment Mgmt. (Semi-Passive)

Equities	Market Value	%
Basic Industries	\$80,504,347.50	6.8%
Capital Goods	65,356,053.00	5.5
Consumer Basics	194,409,029.12	16.4
Consumer Durables	38,820,168.37	3.3
Consumer Non-Dur.	48,736,541.00	4.1
Consumer Services	15,467,130.00	1.3
Energy	120,061,521.25	10.1
Finance	228,204,488.37	19.2
General Business	49,347,562.50	4.2
Miscellaneous	11,730,743.75	1.0
Shelter	10,359,843.75	0.9
Technology	85,856,157.25	7.2
Transportation	20,308,250.00	1.7
Utilities	212,936,596.87	18.0
Non U.S.	0.00	0.0
<b>Total Equities</b>	<b>1,182,098,432.73</b>	<b>99.7</b>
<b>Cash Equivalents</b>	<b>4,097,890.10</b>	<b>0.3</b>
<b>Grand Total</b>	<b>\$1,186,196,322.83</b>	<b>100.0%</b>

## **Summarized Asset Listings - Domestic Stock Managers**

**As of June 30, 1996**

### **Aggregate Domestic Stock Pool\***

<b>Equities</b>	<b>Market Value</b>	<b>%</b>
Basic Industries	\$800,544,508.14	6.0%
Capital Goods	717,685,349.03	5.3
Consumer Basics	2,475,405,184.72	18.4
Consumer Durables	348,130,271.48	2.6
Consumer Non Dur.	830,284,599.08	6.2
Consumer Services	515,253,255.15	3.8
Energy	868,705,760.06	6.5
Finance	2,220,948,792.39	16.5
General Business	767,954,462.04	5.7
Miscellaneous	252,927,048.17	1.9
Shelter	83,586,790.50	0.6
Technology	1,841,422,166.76	13.7
Transportation	140,854,171.90	1.0
Utilities	1,361,593,235.60	10.1
All Non-U.S.	8,978,031.85	0.1
<b>Total Equities</b>	<b>13,234,273,626.87</b>	<b>98.5</b>
<b>Fixed Income</b>	<b>7,800,849.21</b>	<b>0.1</b>
<b>Cash Equivalents</b>	<b>187,174,518.64</b>	<b>1.4</b>
<b>Grand Total</b>	<b>\$13,429,248,994.72</b>	<b>100.0%</b>

\*Aggregate of all managers in the Domestic Equity Account in the Financial Statements. Includes Active, Passive, and Semi-Passive managers.

## **Summarized Asset Listings - Alternative Assets**

**As of June 30, 1996**

Asset listings for the Alternative Asset Pools can be found on pages 91-93 of this report.

## Summarized Asset Listings - International Stock Managers

As of June 30, 1996

### Baring International

Exposure by Country	Market Value	%
Australia	\$1,061.74	0.0%
France	18,962,804.41	8.6
Germany Rep.	10,792,314.55	4.9
Hong Kong	21,766,163.10	9.9
Italy	8,602,720.69	3.9
Japan	96,032,683.58	43.5
Malaysia	58,410.33	0.0
Mexico	210.98	0.0
Netherlands	5,259,330.99	2.4
Singapore	22,881.11	0.0
Spain	6,269,271.84	2.8
Sweden	6,548,162.89	3.0
Switzerland	5,463,048.76	2.5
Thailand	4,289,058.12	1.9
United Kingdom	28,507,372.54	12.9
United States	6,480,666.28	2.9
Forward Currency Contracts	1,584,235.94	0.7
<b>Grand Total</b>	<b>\$220,640,397.85</b>	<b>100.0%</b>

### Marathon Asset Management

Exposure by Country	Market Value	%
Australia	\$18,594,260.96	6.0%
Austria	621,780.09	0.2
Denmark	1,916,736.82	0.6
Finland	5,861,647.33	1.9
France	16,091,475.87	5.2
Germany Rep.	10,249,141.37	3.3
Hong Kong	4,852,084.17	1.6
Indonesia	790,075.19	0.3
Italy	3,488,657.52	1.1
Japan	128,906,515.49	41.5
Malaysia	4,054,650.47	1.3
Mexico	846,377.85	0.3
Netherlands	4,811,502.43	1.5
New Zealand	2,434,170.36	0.8
Norway	3,684,205.59	1.2
Singapore	967,619.28	0.3
South Africa	5,210,600.38	1.7
Spain	8,041,016.39	2.6
Sweden	15,646,760.40	5.0
Switzerland	7,341,205.85	2.4
United Kingdom	53,970,256.23	17.4
United States	12,532,710.26	4.0
Forward Currency Contracts	-9,450.44	0.0
<b>Grand Total</b>	<b>\$310,903,999.86</b>	<b>100.0%</b>

### Brinson Partners

Exposure by Country	Market Value	%
Australia	\$13,258,954.07	4.2%
Belgium	8,743,213.15	2.8
Canada	0.30	0.0
Finland	2,246,486.83	0.7
France	29,102,800.24	9.2
Germany Rep.	18,879,367.24	6.0
Hong Kong	8.00	0.0
Italy	8,139,952.37	2.6
Japan	100,848,301.43	32.0
Malaysia	7,500,776.98	2.4
Netherlands	20,689,717.01	6.6
New Zealand	8,367,932.05	2.7
Spain	9,714,168.96	3.1
Switzerland	7,645,466.30	2.4
United Kingdom	54,540,566.66	17.3
United States	24,016,054.16	7.6
Forward Currency Contracts	1,842,503.98	0.6
<b>Grand Total</b>	<b>\$315,536,269.73</b>	<b>100.0%</b>

### Rowe Price-Fleming International

Exposure by Country	Market Value	%
Argentina	\$503,251.35	0.2%
Australia	5,284,436.07	1.7
Austria	250,146.10	0.1
Belgium	3,042,568.25	1.0
Canada	851,575.48	0.3
Denmark	780,369.51	0.3
Finland	413,433.76	0.1
France	25,313,478.32	8.3
Germany Rep.	13,412,643.82	4.4
Hong Kong	11,774,285.15	3.9
Italy	6,573,012.27	2.2
Japan	73,105,295.35	24.1
Malaysia	9,807,587.89	3.2
Mexico	2,325,327.46	0.8
Netherlands	28,354,848.25	9.3
New Zealand	1,849,457.48	0.6
Norway	4,146,774.74	1.4
Portugal	1,500,996.81	0.5
Singapore	7,052,730.13	2.3
Spain	7,994,900.67	2.6
Sweden	7,091,881.54	2.3
Switzerland	11,468,836.99	3.8
Thailand	2,996,311.17	1.0
United Kingdom	42,696,956.05	14.1
United States	34,808,107.39	11.5
Forward Currency Contracts	0.00	0.0
<b>Grand Total</b>	<b>\$303,399,212.00</b>	<b>100.0%</b>



## Summarized Asset Listings - International Stock Managers

As of June 30, 1996

### Scudder, Stevens & Clark

Exposure by Country	Market Value	%
Australia	\$5,265,769.68	2.6%
Austrian	479,237.70	0.2
Canada	2,366,451.32	1.2
Finland	1,251,034.32	0.6
France	14,267,380.95	7.0
Germany Republic	26,734,026.44	13.2
Hong Kong	8,658,200.03	4.3
Italy	2,606,771.85	1.3
Japan	51,043,432.92	25.2
Malaysia	4,518,766.89	2.2
Mexico	0.04	0.0
Netherlands	14,764,178.18	7.3
New Zealand	24,400.92	0.0
Norway	1,599,174.01	0.8
Philippine	3,980,832.07	2.0
South Africa	323,002.43	0.2
Spain	2,240,435.85	1.1
Sweden	8,232,770.12	4.1
Switzerland	17,602,168.46	8.7
Thailand	1,699,693.71	0.8
United Kingdom	19,200,543.14	9.5
United States	15,672,900.33	7.7
Forward Currency Contracts	210,723.22	0.1
<b>Grand Total</b>	<b>\$202,741,894.58</b>	<b>100.0%</b>

### Templeton Investment Counsel

Exposure by Country	Market Value	%
Australia	\$9,616,976.11	4.6%
Austria	4,450,931.84	2.1
Belgium	4,751,292.00	2.3
Canada	5,189,903.31	2.5
Czechoslovakia	5,061,762.44	2.4
Finland	3,938,757.66	1.9
France	16,904,400.94	8.2
Germany Rep.	8,510,304.98	4.1
Greece	1,173,897.23	0.6
Hong Kong	10,182,183.88	4.9
Italy	7,171,416.56	3.5
Japan	9,786,710.77	4.7
Malaysia	0.01	0.0
Netherlands	11,066,822.36	5.3
New Zealand	5,584,496.78	2.7
Norway	5,169,129.77	2.5
Portugal	2,171,884.98	1.0
Spain	16,409,062.15	7.9
Sweden	14,081,173.26	6.8
Switzerland	7,228,623.94	3.5
United Kingdom	16,671,452.09	8.0
United States	42,278,230.77	20.4
Forward Currency Contracts	-28.91	0.0
<b>Grand Total</b>	<b>\$207,399,384.92</b>	<b>100.0%</b>

### State Street Global Advisors (Passive)

Exposure by Country	Market Value	%
Australian	\$47,866,220.06	2.7%
Austrian	7,453,140.90	0.4
Belgium	20,670,640.79	1.2
Denmark	13,746,232.03	0.8
Finland	9,042,187.85	0.5
France	115,489,883.68	6.6
Germany Rep.	119,895,995.01	6.8
Greece	231.16	0.0
Hong Kong	58,060,470.44	3.3
Ireland	5,662,940.25	0.3
Italy	47,627,392.80	2.7
Japan	693,643,453.31	39.5
Malaysia	42,622,109.40	2.4
Netherlands	73,809,290.19	4.2
New Zealand	6,775,593.12	0.4
Norway	8,533,052.52	0.5
Singapore	25,013,083.76	1.4
Spain	34,108,307.05	1.9
Sweden	39,014,971.36	2.2
Switzerland	105,081,610.68	6.0
United Kingdom	284,016,581.99	16.2
United States	23,708.51	0.0
Forward Currency Contracts	0.00	0.0
<b>Grand Total</b>	<b>\$1,758,157,096.86</b>	<b>100.0%</b>

### Record Treasury Management

Exposure by Country	Market Value
Forward Currency Contracts	
France	-\$825,762.51
Germany Republic	413,484.38
Japan	2,879,859.16
Switzerland	827,483.10
United Kingdom	-1,087,635.00
<b>Grand Total</b>	<b>\$2,207,429.13</b>

# Summarized Asset Listings - International Stock Managers

As of June 30, 1996

## Genesis Asset Managers (Emerging Markets)

Exposure by Country	Market Value	%
Argentina	\$2,242,161.86	2.1%
Australia	2,159,528.49	2.0
Brazil	3,103,553.30	2.9
Greece	1,123,944.40	1.0
Indonesia	867,024.70	0.8
Malaysia	2,662,056.52	2.5
Morocco	783,519.36	0.7
Philippines	2,272,900.76	2.1
Portugal	3,390,383.39	3.2
United Kingdom	3,096,132.55	2.9
South Africa	3,184,541.37	3.0
Thailand	3,774,874.92	3.5
United States	77,604,454.39	72.3
Zimbabwe	1,113,360.32	1.0
Forward Currency Contracts	0.00	0.0
<b>Grand Total</b>	<b>\$107,378,436.33</b>	<b>100.0%</b>

## Montgomery Asset Management (Emerging Markets)

Exposure by Country	Market Value	%
Argentina	\$4,343,466.43	2.0%
Brazil	15,917,680.98	7.4
Czechoslovakia	3,357,143.29	1.6
Egypt	505,252.26	0.2
Greece	580,844.80	0.3
Hong Kong	8,685,205.45	4.1
Indonesia	6,836,486.34	3.2
Malaysia	18,035,011.57	8.4
Mexico	16,481,975.15	7.7
Peru	1,645,681.54	0.8
Philippines	6,645,218.51	3.1
Portugal	4,471,047.92	2.1
South Africa	13,712,686.07	6.4
Thailand	4,891,599.46	2.3
Turkey	1,724,612.58	0.8
United States	106,378,077.40	49.7
Forward Currency Contracts	0.00	0.0
<b>Grand Total</b>	<b>\$214,211,989.75</b>	<b>100.0%</b>

## Aggregate International Stock Pool\*

Exposure by Country	Market Value	%
Argentina	\$7,088,879.64	0.2%
Australia	102,047,207.18	2.8
Austria	13,255,236.63	0.4
Belgium	37,207,714.19	1.0
Brazil	19,021,234.28	0.5
Canada	8,407,930.41	0.2
Czechoslovakia	8,418,905.73	0.2
Denmark	16,443,338.36	0.5
Egypt	505,252.26	0.0
Finland	22,753,547.75	0.6
France	236,132,224.41	6.5
Germany Rep.	208,473,793.41	5.7
Greece	2,878,917.59	0.1
Hong Kong	123,978,600.22	3.4
Indonesia	8,493,586.23	0.2
Ireland	5,662,940.25	0.2
Italy	84,209,924.06	2.3
Japan	1,153,366,392.85	31.7
Malaysia	89,259,370.06	2.5
Mexico	19,653,891.48	0.5
Morocco	783,519.36	0.0
Netherlands	158,755,689.41	4.4
New Zealand	25,036,050.71	0.7
Norway	23,132,336.63	0.6
Peru	1,645,681.54	0.1
Philippines	12,898,951.34	0.4
Portugal	11,534,313.10	0.3
Singapore	33,056,314.28	0.9
South Africa	22,430,830.25	0.6
Spain	84,777,162.91	2.3
Sweden	90,615,719.57	2.5
Switzerland	161,830,960.98	4.4
Thailand	17,651,537.38	0.5
Turkey	1,724,612.58	0.0
United Kingdom	502,699,861.25	13.8
United States	319,794,909.49	8.8
Zimbabwe	1,113,360.32	0.0
Forward Currency Contracts	5,835,412.92	0.1
<b>Grand Total</b>	<b>\$3,642,576,111.01</b>	<b>100.0%</b>

\* Aggregate of all managers in the International Equity Account in the Financial Statements. Includes Active, Passive, Emerging Markets and Currency Overlay managers.

# Summarized Asset Listings - Bond Managers

As of June 30, 1996

## BEA Associates

## Investment Advisers, Inc.

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$76,654,568.09	19.7%
U.S. Corporates	87,708,830.22	22.5
U.S. Finance	0.00	0.0
U.S. Mtg. Rel	121,378,272.14	31.2
U.S. Municipals	6,239,175.00	1.6
Miscellaneous	0.00	0.0
All Non U.S.	30,070,051.70	7.7
<b>Total Fixed Income</b>	<b>322,050,897.15</b>	<b>82.7</b>
<b>Cash Equivalents</b>		
U.S.	67,101,659.61	17.3
All Non U.S.	176.13	0.0
<b>Total Cash Equivalents</b>	<b>67,101,835.74</b>	<b>17.3</b>
<b>Grand Total</b>	<b>\$389,152,732.89</b>	<b>100.0%</b>

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$208,073,528.90	40.2%
U.S. Corporates	128,050,386.15	24.7
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	162,672,382.10	31.4
U.S. Municipals	0.00	0.0
Miscellaneous	0.00	0.0
All Non U.S.	0.00	0.0
<b>Total Fixed Income</b>	<b>498,796,297.15</b>	<b>96.3</b>
<b>Cash Equivalents</b>		
U.S.	19,126,573.66	3.7
All Non U.S.	0.00	0.0
<b>Total Cash Equivalents</b>	<b>19,126,573.66</b>	<b>3.7</b>
<b>Grand Total</b>	<b>\$517,922,870.81</b>	<b>100.0%</b>

## IDS Advisory Group

## Miller Anderson & Sherrerd

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$136,906,494.00	49.9%
U.S. Corporates	99,500,027.50	36.3
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	20,022,575.55	7.3
U.S. Municipals	0.00	0.0
Miscellaneous	0.00	0.0
All Non U.S.	0.00	0.0
<b>Total Fixed Income</b>	<b>256,429,097.05</b>	<b>93.5</b>
<b>Cash Equivalents</b>		
U.S.	17,871,380.07	6.5
All Non U.S.	0.00	0.0
<b>Total Cash Equivalents</b>	<b>17,871,380.07</b>	<b>6.5</b>
<b>Grand Total</b>	<b>\$274,300,477.12</b>	<b>100.0%</b>

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$92,291,294.00	12.1%
U.S. Corporates	105,185,781.63	13.9
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	349,121,486.42	45.9
U.S. Municipals	0.00	0.0
Miscellaneous	0.00	0.0
All Non U.S.	44,699,892.64	5.9
<b>Total Fixed Income</b>	<b>591,298,454.69</b>	<b>77.8</b>
<b>Cash Equivalents</b>		
U.S.	168,810,219.67	22.2
All Non U.S.	65.45	0.0
<b>Total Cash Equivalents</b>	<b>168,810,285.12</b>	<b>22.2</b>
<b>Grand Total</b>	<b>\$760,108,739.81</b>	<b>100.0%</b>

**Summarized Asset Listings - Bond Managers****As of June 30, 1996****Standish, Ayer & Wood**

<b>Fixed Income</b>	<b>Market Value</b>	<b>%</b>
U.S. Gov't./Sponsored	\$51,123,363.50	9.6%
U.S. Corporates	234,067,445.13	44.1
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	210,665,564.19	39.7
U.S. Municipals	0.00	0.0
Miscellaneous	9,460,480.00	1.8
All Non U.S.	19,839,755.45	3.8
<b>Total Fixed Income</b>	<b>525,156,608.27</b>	<b>99.0</b>
<b>Cash Equivalents</b>		
U.S.	3,211,357.13	0.6
All Non U.S.	2,256,627.73	0.4
<b>Total Cash Equivalents</b>	<b>5,467,984.86</b>	<b>1.0</b>
<b>Grand Total</b>	<b>\$530,624,593.13</b>	<b>100.0%</b>

**Western Asset Management**

<b>Fixed Income</b>	<b>Market Value</b>	<b>%</b>
U.S. Gov't./Sponsored	\$225,055,697.56	20.0%
U.S. Corporates	297,738,247.44	26.5
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	463,202,280.83	41.2
U.S. Municipals	2,910,616.85	0.3
Miscellaneous	0.00	0.0
All Non U.S.	27,642,447.75	2.5
<b>Total Fixed Income</b>	<b>1,016,549,290.43</b>	<b>90.5</b>
<b>Total Equities</b>	<b>20,757,650.00</b>	<b>1.8</b>
<b>Cash Equivalents</b>		
U.S.	87,175,102.69	7.7
All Non U.S.	0.00	0.0
<b>Total Cash Equivalents</b>	<b>87,175,102.69</b>	<b>7.7</b>
<b>Grand Total</b>	<b>\$1,124,482,043.12</b>	<b>100.0%</b>



## Summarized Asset Listings - Bond Managers

As of June 30, 1996

### BlackRock Financial Management (Semi-Passive)

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$239,125,484.65	23.5%
U.S. Corporates	216,884,703.15	21.3
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	374,278,446.03	36.7
U.S. Municipals	0.00	0.0
Miscellaneous	5,099,931.91	0.5
All Non U.S.	26,247,176.34	2.6
<b>Total Fixed Income</b>	<b>861,635,742.08</b>	<b>84.6</b>
<b>Cash Equivalents</b>		
U.S.	157,279,999.93	15.4
All Non U.S.	0.00	0.0
<b>Total Cash Equivalents</b>	<b>157,279,999.93</b>	<b>15.4</b>
<b>Grand Total</b>	<b>\$1,018,915,742.01</b>	<b>100.0%</b>

### Lincoln Capital Management (Semi-Passive)

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$507,744,522.45	42.3%
U.S. Corporates	210,652,771.49	17.6
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	401,725,124.13	33.5
U.S. Municipals	0.00	0.0
Miscellaneous	0.00	0.0
All Non U.S.	5,325,168.50	0.4
<b>Total Fixed Income</b>	<b>1,125,447,586.57</b>	<b>93.8</b>
<b>Cash Equivalents</b>		
U.S.	73,780,519.30	6.2
All Non U.S.	0.00	0.0
<b>Total Cash Equivalents</b>	<b>73,780,519.30</b>	<b>6.2</b>
<b>Grand Total</b>	<b>\$1,199,228,105.87</b>	<b>100.0%</b>

### Goldman Sachs Asset Management (Semi-Passive)

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$250,715,383.63	18.8%
U.S. Corporates	405,883,735.59	30.3
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	469,013,756.96	35.1
U.S. Municipals	0.00	0.0
Miscellaneous	1,900,860.00	0.1
All Non U.S.	32,428,510.85	2.4
<b>Total Fixed Income</b>	<b>1,159,942,247.03</b>	<b>86.7</b>
<b>Cash Equivalents</b>		
U.S.	177,451,427.95	13.3
All Non U.S.	0.00	0.0
<b>Total Cash Equivalents</b>	<b>177,451,427.95</b>	<b>13.3</b>
<b>Grand Total</b>	<b>\$1,337,393,674.98</b>	<b>100.0%</b>

### Aggregate Bond Pool\*

Fixed Income	Market Value	%
U.S. Gov't./Sponsored	\$1,787,690,336.78	25.0%
U.S. Corporates	1,785,671,928.30	25.0
U.S. Finance	0.00	0.0
U.S. Mtg. Rel.	2,572,079,888.35	36.0
U.S. Municipals	9,149,791.85	0.1
Miscellaneous	16,461,271.91	0.2
All Non U.S.	186,253,003.23	2.6
<b>Total Fixed Income</b>	<b>6,357,306,220.42</b>	<b>88.9</b>
<b>Total Equities</b>	<b>20,757,650.00</b>	<b>0.3</b>
<b>Cash Equivalents</b>		
U.S.	771,808,240.01	10.8
All Non U.S.	2,256,869.31	0.0
<b>Total Cash Equivalents</b>	<b>774,065,109.32</b>	<b>10.8</b>
<b>Grand Total</b>	<b>\$7,152,128,979.74</b>	<b>100.0%</b>

\* Aggregate of all managers in the Domestic Bond Account in the Financial Statements. Includes both Active and Semi-Passive managers.

# Summarized Asset Listings - Supplemental Investment Fund

As of June 30, 1996

## Income Share Account

	Market Value	%
Stocks	\$241,082,012.60	62.1%
Bonds	127,138,409.20	32.7
Cash Equivalents	20,327,773.82	5.2
<b>Grand Total</b>	<b>\$388,548,195.62</b>	<b>100.0%</b>

## Bond Market Account

	Market Value	%
Bonds	\$24,474,312.18	100.0%
Cash Equivalents	0.00	0.0
<b>Grand Total</b>	<b>\$24,474,312.18</b>	<b>100.0%</b>

## Growth Share Account

	Market Value	%
Stocks	\$149,109,175.05	95.1%
Cash Equivalents	7,673,003.22	4.9
<b>Grand Total</b>	<b>\$156,782,178.27</b>	<b>100.0%</b>

## Money Market Account

	Market Value	%
Cash Equivalents	\$50,050,739.79	100.0%
<b>Grand Total</b>	<b>\$50,050,739.79</b>	<b>100.0%</b>

## Common Stock Index Account

	Market Value	%
Stocks	\$95,882,545.34	100.0%
Cash Equivalents	0.00	0.0
<b>Grand Total</b>	<b>\$95,882,545.34</b>	<b>100.0%</b>

## Fixed Interest Account

	Market Value	%
1993-1996 Contract	\$18,567,012.24	26.7%
GIC Pool	51,008,572.09	73.3
<b>Grand Total</b>	<b>\$69,575,584.33</b>	<b>100.0%</b>

## International Share Account

	Market Value	%
International Stocks	\$13,757,871.05	100.0%
Cash Equivalents	0.00	0.0
<b>Grand Total</b>	<b>\$13,757,871.05</b>	<b>100.0%</b>

## Supplemental Investment Fund

	Market Value	%
<b>Accounts</b>		
Income Share	\$388,548,195.62	48.6%
Growth Share	156,782,178.27	19.6
Common Stock Index	95,882,545.34	12.0
International Share	13,757,871.05	1.7
Bond Market	24,474,312.18	3.1
Money Market	50,050,739.79	6.3
Fixed Interest	69,575,584.33	8.7
<b>Total Supplemental Investment Fund</b>	<b>\$799,071,426.58</b>	<b>100.0%</b>

## Summarized Asset Listings - Other Funds

As of June 30, 1996

### Assigned Risk Plan\*

	Market Value	%
<b>Equities</b>		
Basic Industries	\$25,169,254	4.7%
Capital Goods	8,860,370	1.6
Consumer Basics	1,992,043	0.4
Consumer Durables	11,385,821	2.1
Consumer Non. Dur.	17,674,752	3.3
Consumer Services	1,992,060	0.4
Energy	13,203,524	2.4
Finance	21,375,319	4.0
General Business	4,544,398	0.8
Miscellaneous	340,813	0.1
Shelter	0	0.0
Technology	9,986,341	1.9
Transportation	12,634,358	2.3
Utilities	6,048,765	1.1
All Non U.S.	137,580	0.0
<b>Total Equities</b>	<b>135,345,398</b>	<b>25.1</b>
<b>Fixed Income</b>		
U.S. Gov't./Sponsored	82,523,592	15.3
U.S. Corporates	179,957,729	33.4
U.S. Mtg. Rel.	118,624,878	22.0
U.S. Municipals	2,067,840	0.4
All Non U.S.	0	0.0
<b>Total Fixed Income</b>	<b>383,174,039</b>	<b>71.2</b>
<b>Cash Equivalents</b>	<b>19,795,858</b>	<b>3.7</b>
<b>Grand Total</b>	<b>\$538,315,295</b>	<b>100.0%</b>

### Permanent School Fund\*

	Market Value	%
Fixed Income	\$412,828,020	99.0%
Cash Equivalents	3,980,370	1.0
<b>Grand Total</b>	<b>\$416,808,390</b>	<b>100.0%</b>

### Environmental Trust Fund\*

	Market Value	%
Equities	\$67,759,830	48.9%
Fixed Income	62,336,697	45.0
Cash Equivalents	8,376,432	6.1
<b>Grand Total</b>	<b>\$138,472,959</b>	<b>100.0%</b>

\* All amounts are rounded to the nearest dollar, therefore totals may not add due to rounding.

### Notes applicable to all Summarized Asset Listings:

- The data source for Domestic Stock Managers, International Stock Managers, and Bond Managers was State Street Bank & Trust, the SBI's custodian for retirement-related assets.
- The data source for the Assigned Risk Plan, Permanent School Fund and the Environmental Trust Fund was Financial Control Systems, the SBI's external accounting vendor.
- Market value figures in the Summarized Asset Listings may not reconcile to the amounts shown for various Accounts in the Financial Statements due to minor pricing differences between Financial Controls and State Street Bank as well as trade adjustments that were reflected in the Financial Statements.



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