

# 1995 ANNUAL FINANCIAL REPORT

# State Employes' Retirement System

COMMONWEALTH of PENNSYLVANIA

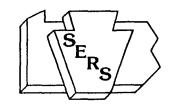
Including the Report of Independent Accountants on Financial Statements for the years ended December 31, 1995 and 1994





### COMMONWEALTH OF PENNSYLVANIA STATE EMPLOYES' RETIREMENT BOARD

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June 1996

Honorable Tom Ridge, Governor Commonwealth of Pennsylvania

Members, Pennsylvania General Assembly Members, Pennsylvania State Employes' Retirement System

Dear Governor Ridge, Legislators and Members:

The Board of Trustees of the Pennsylvania State Employes' Retirement System (SERS) is pleased to present our *Annual Financial Report* on the SERS Fund for calendar year 1995.

As chairman of the SERS Board, I am especially pleased to note that the Fund had a 25.3% total investment rate of return in 1995 and a total market value of \$16.2 billion as of December 31, 1995. By comparison, the Fund's annualized investment rate of return for the past five years was 13.0%, and the annualized investment rate of return for the past 10 years was 11.4%.

These substantial returns have enabled SERS to maintain fully-funded status since 1992. They also validate the Board's adherence to two key principles:

- prudent management of fund assets, and
- ensuring payment of benefits promised by the Commonwealth to SERS retirees and beneficiaries.

Rest assured that the SERS Board, staff and I will continue to pursue prudent investment strategies to assure the solvency of the Fund and the quality of pension-related services to all SERS members.

Sincerely,

Nicholas J. Maiale SERS Board Chairman

41

# Table of Contents

Introduction	
Board of Trustees	ii
Administrative Support; Investment Consultants; General Service Providers	iii
Mission Statement; Investment Policy	iv
Investment Objectives	v
Section 1: Investment Program Overview and Summary of Asset Class	ies
Investment Highlights	1
Investment Program Summary	2
Summary of Asset Classes	9
Section 2: Pennsylvania Investments	
Summary of Pennsylvania Investments	25
Section 3: Investment and Program Trends	
Investment-Related Statistics: 1980 through 1995	29
Investment Performance by Asset Classes	30
Prudent Person; Projected Asset Allocation: 1996 through 1999	31
Commissions Paid by SERS Domestic Separate Account Stock Advisors	32
Commissions Paid by SERS International Separate Account Stock Advisors	33
Commissions Paid: 1995-1994 Comparison	34
Deferred Compensation Program	35
Member Demographics	36
Actuary's Opinion	37
Contribution Rates	38
Funded Status	39
Section 4: Report of Independent Accountants	

Accountants' Letter and Report

# **Board** of **Trustees**

#### Honorable Nicholas J. Maiale

Chairman

Honorable Anthony B. Andrezeski

State Senator

Honorable Gibson E. Armstrong

State Senator

Honorable Robert A. Bittenbender

State Secretary of the Budget to Governor Ridge

James W. Brown

Financial Consultant

Edward J. Keller

Executive Director, AFSCME

Honorable Catherine Baker Knoll

State Treasurer

Charles J. Lieberth (to 1996)

Retired Member and

Civil Service Commissioner

Honorable Edward J. Lucyk

State Representative

K. Paul Muench

Budget Analyst

House Majority Appropriations

Committee

Honorable M. Joseph Rocks (1996)

Retired Member and Former State Legislator

Honorable Jere L. Strittmatter

State Representative

### **Administrative Support**

#### John Brosius

Executive Director

Dale H. Everhart

Assistant Executive Director

Francis J. Donlevy

Director of Financial Management

Harold E. Dunbar

Chief Counsel

Geoffrey S. Yuda

Information Officer

Peter M. Gilbert

Chief Investment Officer

Joseph A. Braccia

Erica C. Bushner

David J. Kalman

Karen N. Nicely

**Diane Sterthous** 

Investment Office Directors

#### **Investment Consultants**

RogersCasey & Associates

General Consultant

Cambridge Associates

Venture Capital and Alternative Investments

Consultant

The Townsend Group

Real Estate Consultant

**Hamilton Lane** 

Specialty Consultant

#### **General Service Providers**

Hay/Huggins Company, Inc.

Actuary

State Street Bank

Agent Bank and

Trust Accounting Services

Coopers & Lybrand L.L.P.

Independent Auditor

# Mission Statement

- I. Plan Administration: To administer the retirement benefits plan for state employes and elected officials in accordance with Pennsylvania statutes;
- II. Member Services: To provide effective services to all active and retired members;
- III. Management of Retirement Fund Assets: To accumulate, manage and disburse the retirement Fund assets in accordance with fiduciary standards and at a reasonable cost to Commonwealth taxpayers;
- IV. Investment Policy: To maximize investment returns while exercising a prudent person investment policy.

### **Investment Policy**

The State Employes' Retirement Board adopted a formal Statement of Investment Policy in 1979. It has been revised periodically, principally to reflect and incorporate legislative changes governing investments. The purpose of the statement is to formalize the Board's investment objectives, policies, and procedures, to establish guidelines for the investment of Fund assets, and to define the duties and responsibilities of the various entities involved in the investment process. The major elements of the statement are:

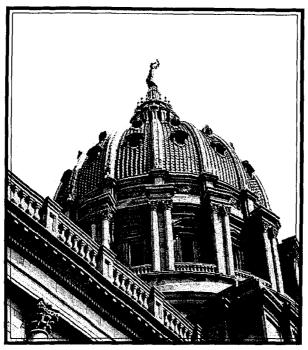
- As fiduciaries, the Board will exercise that degree of judgment, skill, and care under the
  circumstances then prevailing which persons of prudence, discretion, and intelligence, who are
  familiar with such matters, exercise in the management of their own affairs in investment
  matters;
- The Fund's overall investment objective is to provide a total rate of return, over full economic cycles, which exceeds the return of a fully diversified market portfolio within each asset class. The Board seeks to meet this objective within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, quality, and geographic location;
- The Board employs an investment staff and also contracts with investment advisors and consultants to provide expert, professional judgment in all investment decisions;
- An annual Investment Plan is prepared to control the allocation of funds during the year among investment advisors and categories of assets;
- Guidelines are established for each category of assets used by the Fund's investment advisors to provide a framework for monitoring quality, diversification, and liquidity; and
- Where investment characteristics, including yield, risk, and liquidity, are equivalent, the Board's policy favors investments which have a positive impact on the economy of Pennsylvania.

## **Investment Objectives**

To assure an adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth and to provide some protection against the erosion of principal by inflation, the long-term investment objectives of the Fund, are:

- Achieve and maintain the State Employes' Retirement Fund in excess of Accrued Benefit Liability;
- Over the long run, achieve a positive real total rate of return (with inflation measured by the GDP Implicit Price Deflator);
- Over the long run, achieve an absolute total rate of return not less than the actuarial investment return assumption;
- Achieve in Domestic Stocks a total return that exceeds the total return of the Wilshire 5000 Index;
- Achieve in International Stocks a total return that exceeds the total return of the SERS Custom International Stock Index;
- Achieve in the Fixed Income asset class a total return that exceeds the total return of the SERS Fixed Income Custom Index;
- Achieve in the Equity Real Estate asset class a total return that exceeds the total return of the NCREIF Index;
- Achieve in the Cash asset class a total return that exceeds the total return on U.S. Treasury Bills (90 days);
- Achieve in the Venture Capital asset class a total return that exceeds either the Venture Economics' relevant Vintage Year Median Returns or relevant returns furnished for benchmark purposes by SERS's Venture Capital/Alternative Investments consultant;
- Achieve in the Alternative Investments asset class a total return that exceeds either market returns
  for similar types of alternative investments or relevant returns furnished for benchmark purposes by
  SERS's Venture Capital/Alternative Investments consultant.

Total return includes income and both realized and unrealized gains and losses and is computed on market value. The Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style, and geographic location.



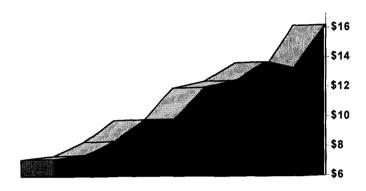
# SECTION

Investment Program Overview

and Summary of Asset Classes

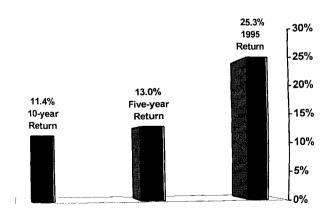
### **Investment Highlights**

The unaudited market value\* of the State Employes' Retirement System (SERS) investments, including accruals, was \$16,185.1 million as of December 31, 1995. This represents an increase of \$2,962.2 million from the \$13,222.9 million market value as of December 31, 1994. The increase was due to favorable investment returns in 1995 and takes into account the difference between \$586.2 million in employer and employe contributions and \$879.7 million paid out for benefits and refunds to participants. Based on the market value of assets as of September 30, 1995, the SERS Fund is the 24<sup>th</sup> largest public pension fund in the nation and ranks 39<sup>th</sup> among public and corporate pension funds.\*\*



SERS Fund growth 1986 through 1995 (\$ in billions)

For the year ended December 31, 1995, SERS realized a +25.3% total investment rate of return after fees. While such a large one-year return is very gratifying, as a long-term investor with long-term liabilities, the Fund is most concerned with long-term performance. SERS's annualized five-year investment rate of return was +13.0% after fees, and the annualized 10-year investment rate of return was +11.4% after fees.



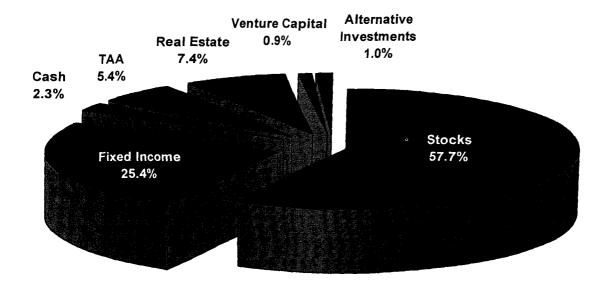
SERS Fund return over the last 10-year, five-year and one-year periods

<sup>\*</sup>The investment portion of this report is based on unaudited, end-of-1995 figures. Section 4 of the report provides audited financial statements that became available in mid-1996. \*\*Source: Pensions & Investments magazine, January 22, 1996.

# **Investment Program Summary**

SERS's assets are administered by the SERS Board of Trustees. The Board has adopted an Investment Policy that incorporates the provisions of Pennsylvania's Retirement Code, which governs the investment of SERS's assets. The policy provides investment objectives and guidelines. An Investment Plan is reviewed and updated annually for strategic asset allocation purposes, as well as for diversification needs within each asset class.

SERS invests in seven major asset classes and uses external investment advisors with various investment styles as a method to ensure overall Fund diversification. As of December 31, 1995, SERS's asset class allocation was as follows: 57.7% stocks; 25.4% fixed income; 2.3% cash; 5.4% tactical asset allocation (TAA); 7.4% real estate; 0.9% venture capital; and 1.0% alternative investments.



SERS Fund asset allocation as of December 31, 1995, by asset class and percentage

Asset allocation is perhaps the most important investment decision of the Fund, accounting for as much as 90% of the Fund's return performance. Asset allocation policies have a long-term focus and may take several years to implement fully.

Market value of SERS Fund asset classes and long-term target allocation as of December 31, 1995 (\$\\$\) in millions)

Asset Class	Marko	t Value	Long-Term Target Allocation
Domestic Stocks	\$7,502.4	46.4%	36.5%
International Stocks	1,821.4	11.3%	20.0%
Fixed Income	4,109.4	25.4%	22.5%
Cash	364.5	2.3%	1.0%
Tactical Asset Allocation	875.4	5.4%	5.0%
Real Estate	1,193.0	7.4%	10.0%
Venture Capital	152.0	0.9%	2.0%
Alternative Investments	166.9	1.0%	3.0%
Total	\$16,185.1	100.0%	100.0%

Numbers may not add due to rounding.

#### Investment Advisors and Portfolios

As of December 31, 1995, SERS had retained the services of 84 external investment advisors, including:

- 12 domestic stock investment advisors
- 6 international stock investment advisors
- 10 fixed income investment advisors
- 2 cash investment advisors
- 1 tactical asset allocation investment advisor
- 15 real estate investment advisors
- 22 venture capital limited partnership managing general partners
- 16 alternative investment limited partnership managing general partners

In addition, five domestic stock advisors, seven international stock advisors and one fixed income advisor were approved by the Board but not yet funded at the end of 1995. As of December 31, 1995, SERS's 84 external investment advisors managed 108 investment portfolios/accounts, including:

- 16 domestic stock portfolios
- 7 international stock portfolios
- 11 fixed income portfolios
- 3 cash portfolios
- 1 tactical asset allocation portfolio
- 23 real estate portfolios
- 28 venture capital limited partnership interests
- 19 alternative investment limited partnerships

In addition, five domestic stock portfolios, eight international stock portfolios, one fixed income portfolio and one alternative investment partnership were approved by the Board but not yet funded at the end of 1995. Several investment advisors manage multiple portfolios for SERS.

#### Pennsylvania State Employes' Retirement System

### Asset Allocation as of December 31, 1995

<b>Total Fund Summary</b>	Market Value (\$ in millions)	% of Total Fund
Domestic Stocks	\$7,502.4	46.4%
International Stocks	1,821.4	11.3%
Fixed Income	4,109.4	25.4%
Cash	364.5	2.3%
Tactical Asset Allocation	875.4	5.4%
Real Estate	1,193.0	7.4%
Venture Capital	152.0	0.9%
Alternative Investments	166.9	1.0%
Total Fund	\$16,185.1	100.0%

Domestic Stocks	(\$ in millions) Market Value	% of Domestic Stocks	% of Total Stocks	% of Total Fund
Passively Managed Portfolios	1.201.105 . 11.115	2,000	<del>2.3,2110</del>	<u> </u>
BZW Barclays - Equity Index (S&P 500)	\$3,457.0	46.1%	37.1%	21.4%
BZW Barclays - Equity Value Fund	348.3	4.6%	3.7%	2.2%
BZW Barclays - Extended Equity Market Fund	956.2	12.7%	10.3%	5.9%
Domestic Passive Stocks Total	\$4,761.5	63.5%	51.1%	29.4%
Actively Managed Portfolios				
Dietche & Field Advisors, Inc.	\$82.3	1.1%	0.9%	0.5%
Emerald Advisers, Inc PA	54.2	0.7%	0.6%	0.3%
Iridian Asset Management	204.9	2.7%	2.2%	1.3%
Mellon Equity Associates - PA	53.7	0.7%	0.6%	0.3%
Mellon Equity Associates - Special Equity	523.3	7.0%	5.6%	3.2%
Miller, Anderson & Sherrerd	368.5	4.9%	4.0%	2.3%
Neuberger & Berman	76.7	1.0%	0.8%	0.5%
Pilgrim Baxter & Associates	346.0	4.6%	3.7%	2.1%
Provident Investment Counsel	447.4	6.0%	4.8%	2.8%
Provident Investment Counsel - Stellar Fund	79.2	1.1%	0.8%	0.5%
Sturdivant & Co., Inc.	30.8	0.4%	0.3%	0.2%
Trinity Investment Management	463.0	6.2%	5.0%	2.9%
Zevenbergen Capital	10.9	0.1%	0.1%	0.1%
Domestic Active Stocks Total	\$2,740.9	36.5%	29.4%	16.9%
Domestic Stocks Total	\$7,502.4	100.0%	80.5%	46.4%
International Stocks		% of Int'l Stocks		
Passively Managed Portfolios				
BZW Barclays - Europe Acct.	\$220.7	12.1%	2.4%	1.4%
BZW Barclays - Restructuring Acct.	27.2	1.5%	0.3%	0.2%
International Passive Stocks Total	\$247.9	13.6%	2.7%	1.5%
Actively Managed Portfolios				
BEA Associates - core	\$340.2	18.7%	3.6%	2.1%
Dunedin Fund Managers - small cap	268.2	14.7%	2.9%	1.7%
Miller, Anderson & Sherrerd - core	442.2	24.3%	4.7%	2.7%
Seligman Henderson Co small cap	139.7	7.7%	1.5%	0.9%
Templeton Investment Counsel - core	383.1	21.0%	4.1%	2.4%
International Active Stocks Total	\$1,573.5	86.4%	16.9%	9.7%
International Stocks Total	\$1,821.4	100.0%	19.5%	11.3%
Domestic and International Stocks Total	\$9,323.9		100.0%	57.6%

# Asset Allocation as of December 31, 1995 (continued)

Fixed Income	(\$ in millions) Market Value		f Total	% of Total
Passively Managed Core Portfolios	Market Value	rixed	Income	<u>Fund</u>
Mellon Bond Associates	\$898.9		21.9%	5.6%
Actively Managed Core Portfolios			21.570	2.070
P. G. Corbin	\$9.5		0.2%	0.1%
Miller, Anderson & Sherrerd	1,426.8		34.7%	8.8%
J. P. Morgan	506.7		12.3%	3.1%
Smith Graham & Co.	9.1		0.2%	0.1%
Active Core Fixed Income Total	\$1,952.1	_	47.5%	12.1%
Core Fixed Income Total	\$2,850.9		69.4%	17.6%
Actively Managed Specialty Portfolios				
Cigna Investments	\$1.6		0.0%	0.0%
John Hancock	148.2		3.6%	0.9%
W. R. Huff Asset Management	632.5		15.4%	3.9%
Legg Mason Real Estate Advisors	458.6		11.2%	2.8%
Trust Company of the West	17.6		0.4%	0.1%
Active Specialty Fixed Income Total	\$1,258.5	_	30.6%	7.8%
Fixed Income Total	\$4,109.4	1	100.0%	25.4%
Cash		%	of Total	
			<u>Cash</u>	
Payden & Rygel	\$98.8		27.1%	0.6%
PA State Treasury (Separate Acct. + STIP)*	265.7		72.9%	1.6%
Cash Total	\$364.5	1	00.0%	2.3%
Tactical Asset Allocation		Allocation (Stocks / Bonds / Cook)		
		(Stocks / Bonds / Cash)		
BZW Barclays - Enhanced 70/30 U.S. TAA	\$875.4	70%/10%/20%		5.4%

Continued on page 6

### Pennsylvania State Employes' Retirement System

# Asset Allocation as of December 31, 1995 (continued)

D. al Estata	(\$ in millions)	% of Total	% of Total
Real Estate	Market Value	Real Estate	<b>Fund</b>
Separate Account Portfolios	_		
Forest Investment Associates	\$37.0	3.1%	0.2%
Heitman/JMB	456.3	38.3%	2.8%
LaSalle Partners	65.5	5.5%	0.4%
Lowe Enterprises	132.2	11.1%	0.8%
RAI Advisers	41.1	3.4%	0.3%
Separate Account Portfolios Total	\$732.2	61.4%	4.5%
Pooled Fund Portfolios			
Aetna - 4 pooled funds	\$83.5	7.0%	0.5%
Alex Brown	11.4	1.0%	0.1%
Copley CIIF-II	12.5	1.1%	0.1%
Corporate Property Investors	112.7	9.4%	0.7%
Goldman Sachs - Whitehall V & VI	28.7	2.4%	0.2%
Goldman Sachs - Whitehall V-S & VI-S	6.8	0.6%	0.0%
John Hancock	12.5	1.1%	0.1%
Heitman - California Land Venture	1.3	0.1%	0.0%
JMB Group Trust III	37.0	3.1%	0.2%
Metric Apartment Fund - 2 pooled funds	46.9	3.9%	0.3%
PSI III	17.7	1.5%	0.1%
Prudential - 2 pooled funds	0.1	0.0%	0.0%
Sentinel Corporation	37.4	3.1%	0.2%
Trust Company of the West - Fund VI	52.2	4.4%	0.3%
Pooled Fund Portfolios Total	\$460.8	38.6%	2.8%
Real Estate Total	\$1,193.0	100.0%	7.4%
Venture Capital**		% of Total Venture Capit	al
APA/Fostin - PA VC Fund & Fund II	#2C F	17.40/	0.20/
	\$26.5	17.4%	0.2%
Advent VII	16.4	10.8%	0.1%
Bachow III	7.3	4.8%	0.0%
CEO Venture Fund S & II	8.8	5.8%	0.1%
Edison III	10.9	7.2%	0.1%
Fairview Capital	0.9	0.6%	0.0%
Fostin Capital I & II	7.4	4.9%	0.0%
Grotech Pennsylvania III & IV	10.5	6.9%	0.1%
Healthcare Ventures III	14.8	9.7%	0.1%
Keystone II & IV	10.8	7.1%	0.1%
NEA VI	15.7	10.3%	0.1%
NEPA Venture I & II	6.9	4.5%	0.0%
PNC Venture Group I	1.4	0.9%	0.0%
Pittsburgh Seed Fund	0.4	0.3%	0.0%
Point Venture Partners	0.5	0.3%	0.0%
Sprout VII	3.4	2.2%	0.0%
Stock Distributions	1.1	0.7%	0.0%
Summit Ventures IV	2.4	1.6%	0.0%
TDH-II Limited	3.5	2.3%	0.0%
Weston Presidio	2.0	1.3%	0.0%
Zero Stage Capital II	0.6	0.4%	0.0%
Venture Capital Total	\$152.0	100.0%	0.9%

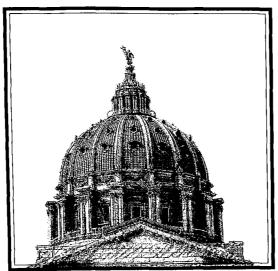
# Asset Allocation as of December 31, 1995 (continued)

Alternative Investments**	(\$ in millions)  Market Value	% of Total <u>Alter, Inv.</u>	% of Total <u>Fund</u>
APAX Partners - 2 European funds	\$7.1	4.2%	0.0%
Blackstone II	9.3	5.6%	0.1%
Brentwood Associates Buyout Fund	15.7	9.4%	0.1%
Charterhouse II	20.8	12.4%	0.1%
Code, Hennessy & Simmons I & II	14.7	8.8%	0.1%
Hellman & Friedman II & III	32.1	19.2%	0.2%
Kelso V	16.3	9.8%	0.1%
Landmark IV	2.9	1.7%	0.0%
Madison Dearborn	6.2	3.7%	0.0%
Murphy & Fauver	3.9	2.3%	0.0%
RR & Z Pennsylvania Fund #1	0.2	0.1%	0.0%
Schroder Ventures UK III	5.7	3.4%	0.0%
Trust Company of the West - Fund V	32.1	19.2%	0.2%
Alternative Investments Total	\$166.9	100.0%	1.0%

Numbers may not add due to rounding.

<sup>\*</sup>Pennsylvania State Treasury values for the Short Term Investment Pool (STIP) portion are at cost and do not reflect cash maintained at Treasury by SERS investment advisors. Including SERS advisors' cash, the actual Treasury STIP balance = \$504.7 million.

<sup>\*\*</sup>Venture capital and alternative investment market values are estimates.



# Summary of Asset Classes

# Summary of Domestic Stock Investments

Domestic and international stocks comprise the stock asset class. SERS's investment plan diversifies stock investments and balances stock management styles. SERS contracts with external investment advisors to manage portfolios.

#### **Policy**

Stock investments are employed by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The stock asset class is to be managed on a total return basis. Stock investments shall emphasize, but not be limited to, publicly traded securities that provide SERS with an equity interest in private sector concerns (e.g., common stock, preferred stock, convertible preferred stock, convertible bonds, etc.).

SERS's 1995 Investment Plan targeted an eventual allocation of 36.5% of assets to domestic stocks, with a targeted investment of 70.0% of domestic stocks in large capitalization stocks and 30.0% in medium/small capitalization stocks. The plan also provided for a balance in value and growth investment styles. The 1995 plan targeted 55.1% of domestic stocks to be indexed.

#### Market Value

Domestic stocks had a \$7,502.4 million market value, 46.4% of the total Fund's \$16,185.1 million market value, on December 31, 1995.

# Number of Investment Advisors

SERS had contracts with 12 external investment advisors to manage domestic stock portfolios. Five additional investment advisors for this area were also approved by the SERS Board.

# Number of Investment Portfolios

SERS had 16 domestic stock portfolios managed by the 12 external investment advisors. Five additional portfolios for this area were also approved by the Board.

#### Types of Investment Portfolios

As of December 31, 1995, 68.3% of SERS's domestic stock allocation was in large capitalization stock strategies, and 31.7% was in medium/small capitalization stock strategies. The portfolios within the domestic stock area can be classified by investment style: 16.1% value; 17.4% growth; and 66.5% core. SERS had 13 actively managed portfolios (36.5% of domestic stocks) and three passively managed index portfolios (63.5% of domestic stocks). The active managers search out superior investment opportunities. The passively managed portfolios provide broad core diversification and are designed to track the performance of the market a low cost.

<i>Domestic</i> Stock Investment Advisor	Investment Style	*Market Value of Portfolio as of December 31, 1995 (\$ millions)
	111 ( 605.110 210 30) 10	(
BZW Barclays Global Investors		#2 <i>457</i> O
<ul><li>Equity Index Fund P (S&amp;P 500)</li><li>Equity Value Fund</li></ul>	large cap stocks - indexed core large cap value stocks - indexed	\$3,457.0 348.3
<ul> <li>Extended Equity Market Fund (Wilshire 4500)</li> </ul>	medium/small cap stocks - indexed core	956.2
Dietche & Field Advisors	medium/small cap value stocks	82.3
Emerald Advisers	PA growth stocks	54.2
Fidelity Management Trust Co.	S&P 500, risk controlled	**
Iridian Asset Management	medium cap value stocks	204.9
Loomis, Sayles & Co.	large cap value stocks	**
Lord, Abbett & Co.	large cap value stocks	**
Mackay Shields	large cap value stocks	**
Mellon Equity Associates		53.7
<ul><li>PA Equity Portfolio</li><li>Special Equity</li></ul>	PA stocks medium/small cap stocks	523.3
Miller, Anderson & Sherrerd	large cap growth stocks	368.5
J.P. Morgan Investment Management	S&P 500, risk controlled	**
Neuberger & Berman	medium/small cap value stocks	76.7
Pilgrim, Baxter & Associates	medium/small cap growth stocks	346.0
Provident Investment Counsel (PIC)	large cap growth stocks	447.4
PIC Stellar Fund	small cap growth stocks	79.2
Sturdivant & Co.	large cap value stocks	30.8
Trinity Investment Management	large cap value stocks	463.0
Zevenbergen Capital	large cap growth stocks	10.9
Total		\$7,502.4

<sup>\*</sup>Includes stocks and cash which the manager had available for investment. \*\*Market values not listed for managers hired but not yet funded at the end of 1995. Numbers may not add due to rounding.

# Summary of International Stock Investments

International and domestic stocks comprise the stock asset class. SERS's investment plan diversifies stock investments and balances stock management styles. SERS contracts with external investment advisors to manage portfolios.

#### **Policy**

Stock investments are employed by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The stock asset class is to be managed on a total return basis. SERS's 1995 Investment Plan targeted an eventual allocation of 20.0% of assets to international stocks, with a targeted investment of 80.0% of international stock to large capitalization stock strategies and 20.0% to medium/small capitalization stock strategies.

#### Market Value

International stocks had a \$1,821.4 million me value, 11.3% of the total Fund's \$16,185.1 million market value, on December 31, 1995.

# Number of Investment Advisors

SERS had contracts with six external investment advisors to manage international stock portfol Seven additional investment advisors for this were approved by the Board.

# Number of Investment Portfolios

SERS had seven international stock portfolios managed by the six external investment advisor Eight additional portfolios for this area were approved by the Board.

#### Types of Investment Portfolios

As of December 31, 1995, 77.6% of SERS's international stock allocation was in large capitalization stock strategies, and 22.4% was medium/small capitalization stock strategies. SERS had five actively managed international portfolios and one Europe index portfolio.

<i>International</i> Stock Investment Advisor	Investment Style	*Market Value of Portfolio as of December 31, 1995 (\$ millions)
BEA Associates	international stocks - core	\$340.2
BZW Barclays Global Investors	33333	ψ5 10.2
Australia and New Zealand	Australia and New Zealand stocks - indexed	**
• Europe	Europe stocks - indexed	220.7
• Restructuring Account	Europe and Pacific Basin stocks	27.2
Dunedin Fund Managers	international medium/small cap stocks	268.2
GAM International Management	Pacific Basin ex Japan stocks	**
Marathon Asset Management	Europe stocks	**
Mercury Asset Management	international medium/small cap stock	**
Miller, Anderson & Sherrerd	international stocks - core	442.2
J.P. Morgan Investment Management	Japan stocks	**
Pictet International Management	international medium/small cap stock	**
Scottish Widows Investment Management	Europe stocks	**
Seligman Henderson	international medium/small cap stock	139.7
TCW Asset Management	Asia ex Japan stocks	**
Templeton Investment Counsel	international stocks - core	383.1
Total		\$1,821.4

<sup>\*</sup>Includes stock and cash that the manager had available for investment. \*\*Market values not listed for managers hired but not yet funded at the end of 1995. Numbers may not add due to rounding.

# Summary of Fixed Income Investments

SERS's Investment Plan diversifies fixed income investments and balances fixed income management styles. SERS's practice is to contract with external investment advisors to manage portfolios.

#### **Policy**

Fixed income investments are employed by the Fund primarily because they serve as a hedge against disinflation and/or deflation, their general ability to produce current income in the form of periodic interest payments, and because such investments help diversify the overall Fund. The fixed income asset class is to be managed on a total return basis. SERS's 1995 Investment Plan targeted an eventual allocation of 22.5% of assets to the fixed income asset class. Of this amount, 75.0% was targeted to active strategies, and 25.0% to passive strategies. The asset class is further classified according to core and specialty strategies, with 75.0% targeted to the core segment and 25.0% to the specialty segment. Specialty strategies include:

- whole-loan mortgages;
- high yield/special credits; and
- private placements.

#### Market Value

Fixed income had a \$4,109.4 million market value, 25.4% of the total Fund's \$16,185.1 million market value, on December 31, 1995.

# Number of Investment Advisors

SERS had contracts with 10 external investment advisors to manage portfolios within the fixed income asset class as of December 31, 1995. One additional investment advisor for this area was also approved by the SERS Board of Trustees.

# Number of Investment Portfolios

SERS had a total of 11 portfolios within the fixed income asset class. One additional portfolio for this area was also approved by the SERS Board of Trustees.

# Types of Investment Portfolios

The fixed income asset class is divided into core and specialty segments. Core portfolios utilizea broad array of fixed income securities. Specialty portfolios focus on well-defined sectors and opportunistic strategies within the fixed income market.

Core: SERS had four actively managed core bond portfolios with a market value of \$1,952.1 million (47.5% of fixed income) and one passively managed core bond portfolio with a market value of \$898.9 million (21.9% of fixed income).

Specialty: SERS had one whole-loan mortgage portfolio with a market value of \$458.6 million (11.2% of fixed income), three high yield/special credits portfolios with a market value of \$651.7 million (15.8% of fixed income), and two private placement portfolios with a market value of \$148.2 million (3.6% of fixed income).

Fixed Income Investment Advisor	Investment Style	*Market Value of Portfolio as of December 31, 1995 (\$ millions)	
Core			
P.G. Corbin Asset Management	active domestic fixed income	\$9.5	
Fischer Francis Trees & Watts	active international fixed income	**	
Mellon Bond Associates	domestic - indexed	898.9	
Miller, Anderson & Sherrerd	active domestic/global fixed income	1,426.8	
J.P. Morgan Investment Management	active domestic fixed income	506.7	
Smith Graham & Co.	active domestic fixed income	9.1	
Specialty			
Cigna Investments	PA private placements	1.6	
John Hancock Mutual Life Insurance Company	privately placed fixed income	148.2	
W. R. Huff Asset Management	high yield bonds	632.5	
Legg Mason Real Estate Advisors	residential and commercial mortgages	458.6	
Trust Company of the West Special Credits Fund IIb	special credits	3.9	
Trust Company of the West Special Credits Fund III	special credits	13.7	
Total		\$4,109.4	

<sup>\*</sup>Includes securities and cash that the manager had available for investment. \*\*Market value not listed for manager hired but not yet funded at the end of 1995. Numbers may not add due to rounding.

# Summary of Cash Investments

SERS's Investment Plan diversifies cash investments and balances cash management styles. It is SERS's practice to contract with external investment advisors to manage portfolios.

#### **Policy**

Cash investments are employed by the Fund to provide for SERS's liquidity needs and to accumulate funds for future permanent investment. The cash asset class is to be managed on a total return basis, with the exception that temporary investments may alternatively be evaluated on a yield-to-maturity basis given their extremely short maturities. SERS's 1995 Investment Plan targeted an eventual allocation of 1.0% of assets to the cash asset class.

#### Market Value

Cash had a \$364.5 million market value, 23% the total Fund's \$16,185.1 million market val on December 31, 1995.

# Number of Investment Advisory

SERS had a contract with one external investigation advisor to manage a portfolio within the cast class. SERS also utilizes the Pennsylvania St. Treasury Department to manage two cash accounts.

# Number of Investment Portfolio

SERS had three portfolios within the cash as class: one managed by the external advisor. two managed by the Pennsylvania State Trees Department.

# Types of Investment Portfolios

SERS had one actively managed, short-durate fixed income portfolio with a market value of \$98.8 million (27.1% of cash). On a combine basis, the two portfolios managed by the Pennsylvania State Treasury Department has market value of \$265.7 million (72.9% of Treasury also manages excess cash balances by other SERS investment advisors in other classes. In the aggregate, Treasury managed \$504.7 million on behalf of SERS and SERS external investment advisors as of December 1995

Cash Investment Advisor Payden & Rygel	Investment Style Short duration fixed income	Market Value of Po as of December 31. (\$ millions)*
PA State Treasury Department  ■ Separate Account		\$98.8
• Short-Term Investment	Short duration fixed income	101.2
Pool**	Short term fixed income and money market instruments	164.5

<sup>\*</sup>Numbers may not add due to rounding. \*\*Market value does not include cash maintained in the Short-Term Investment? by SERS's other external investment advisors.

# Summary of Tactical Asset Allocation Investments

SERS's tactical asset allocation (TAA) asset class currently contains one investment strategy, the Enhanced 70/30 Normal U.S. Tactical Asset Allocation (Enhanced 70/30 TAA). The Enhanced 70/30 TAA strategy shifts assets among stocks, bonds and cash. It is SERS's practice to contract with external investment advisors to manage portfolios. SERS contracts with external investment advisor BZW Barlcays Global Investors (BZW Barclays) to manage the portfolio.

#### **Policy**

SERS's 1995 Investment Plan targeted an eventual allocation of 5.0% of assets to the TAA asset class.

#### Market Value

SERS's investment in the BZW Barclays Enhanced 70/30 TAA Fund had a \$875.4 million market value, 5.4% of the total Fund's \$16,185.1 million market value, on December 31, 1995.

#### Number of Investment Advisors

SERS had a contract with one external investment advisor to manage a TAA portfolio as of December 31, 1995.

#### Number of Investment Portfolios

SERS had one TAA portfolio managed by the one external investment advisor.

#### Types of Investment Portfolios

The BZW Barclays Enhanced 70/30 TAA Fund is designed to offer an efficient, low cost means of seeking above-market returns from a portfolio diversified among the domestic stock, fixed income and cash markets. The Fund invests in three of BZW Barclays' collective funds. Proprietary technology is used to establish and adjust the optimal asset mix among these funds. The mix will vary as economic and capital market conditions change. Under equilibrium conditions, the Enhanced 70/30 TAA Fund will have 70.0% of assets invested in the Equity Index Fund, 30.0% of assets invested in the Long Term Income Fund, and 0.0% in the Cash Fund. As of December 31, 1995, the actual asset mix of the Fund was 70.0% stock, 10.0% bonds, and 20.0% cash.

# Summary of Real Estate Investments

SERS's Investment Plan diversifies equity real estate investments and balances real estate management styles. In accordance with the plan, SERS contracts with external investment advisors to manage portfolios.

#### **Policy**

Equity real estate investments are generally longterm, illiquid investments that, due to their high correlation with inflation, provide an inflation hedge and diversification within the total portfolio due to their low correlation with stocks and bonds. It is expected that the long-term total return (income and appreciation) for real estate will fall between those of stocks and bonds. The equity real estate asset class is managed on a total return basis. SERS's 1995 Investment Plan targeted an eventual allocation of 10.0% of assets to the equity real estate asset class. Investments are made through pooled-fund investments and separate account portfolios where SERS owns the properties directly or with other co-investors. SERS's equity real estate portfolio guidelines provide for diversification by transaction structures, property types, geographic location, and development phase. Of SERS's equity real estate investments, 20.0% are located in Pennsylvania.

#### Market Value

Real estate had a \$1,193.0 million market value, 7.4% of the total Fund's \$16,185.1 million market value, on December 31, 1995.

# Number of Investment Advisors

SERS had contracts with 15 external investment advisors to manage real estate portfolios as of December 31, 1995.

# Number of Investment Portfolios

SERS had investments in 23 real estate portfolios managed by the 15 external investment advisors.

# Types of Investment Portfolios

As of December 31, 1995, the composition of the real estate portfolio was as follows:

- 80% equity ownership, 20% equityoriented mortgages;
- 38.6% pooled funds, 61.4% separate accounts;
- 20.0% office, 8.0% industrial, 38.0% retail, 22.0% residential, 6.0% hotel/motel, 6.0% other;
- 20.0% Pennsylvania, 25.0% East (excl. PA), 19.0% West, 18.0% South, 18.0% Midwest.

Real Estate Investment Advisor	SERS Initial Funding	Property Type	Transaction Structure	Market Value of Portfolio as of December 31, 1995 (\$ in millions)*
Aetna	06.20.02	-00	•	<b>£</b> 2.4
• CERESA I	06-30-83	office, industrial	equity ownership	\$2.4
● PMSA	09-30-83	diversified	equity oriented mtgs.	40.0
• RESA	06-30-84	diversified	equity ownership	29.9
<ul> <li>Apartment Fund</li> </ul>	12-31-86	residential	equity ownership	11.3
Copley CIIF-II	08-08-88	industrial, other	equity ownership	12.5
Corporate Property Investors	12-08-83	office, industrial retail	equity ownership	112.7
Forest Investment Assoc.	10-30-92	timber	equity ownership	37.0
Goldman Sachs				20.7
<ul><li>Whitehall V &amp; VI</li></ul>	4/20/94	Opportunistic	equity and debt	28.7
• Whitehall V-S & VI-S	12/11/95	Opportunistic	equity and debt	6.8
John Hancock Apartment Fund	09-30-86	residential	equity ownership	12.5
Heitman/JMB				456.2
<ul> <li>Separate account</li> </ul>	12-28-87	office, industrial retail	equity ownership	456.3
<ul> <li>California Land Venture</li> </ul>	12-07-89	land	equity ownership	1.3
JMB Group Trust III	12-31-84	office, retail	equity ownership	37.0
LaSalle				
<ul> <li>Alex Brown Profile Fund</li> </ul>	12-31-84	office, industrial retail, residential	equity ownership	11.4
Separate Account	10-1-93	diversified	equity ownership	65.5
Lowe Enterprises	10/1/93	diversified	equity ownership	132.2
Metric			9	23,2
<ul><li>MIAF</li></ul>	09-05-89	residential	equity ownership	23.7
• MIAF II	12-07-92	residential	equity ownership	23.7
PSI III	08-16-88	industrial	equity ownership	17.7
Prudential		ar		0.06
• PRACE I	12-31-83	office, industrial	equity ownership	
• PRACE II	12-31-84	industrial, residential	equity ownership	0.02
RAI Advisers	10/1/93	PA diversified	equity ownership	41.1
Sentinel Corp.	07-31-84	office, industrial retail, residential	equity ownership	37.4
TCW Fund VI	4/20/94	Opportunistic	equity and debt	52.2
Total				\$1,193.0

<sup>\*</sup>Numbers may not add due to rounding.

# Summary of Venture Capital Investments

Venture capital is the financing of young, relatively small, rapidly growing companies that do not have access to public equity or debtoriented institutional funding. SERS invests capital as a limited partner in venture capital limited partnerships established for the purpose of investing in and managing venture capital companies.

#### **Policy**

SERS's 1995 Investment Plan targeted an eventual allocation of 2.0% of assets to the venture capital asset class.

#### History

Act 1984-95, effective in 1984, specified that SERS may invest up to 1.0% of Fund assets in venture capital by acquiring equity or debt and equity interests in a business that is expected to grow substantially in the future. Act 1991-23, effective in 1991, specified that SERS may invest up to 2.0% of the Fund in venture capital. Furthermore, Act 1994-29, effective in 1994, enabled SERS to invest according to "prudent person" standards, and further specified that an investment in venture capital by SERS may be made only if the investment is reasonably likely to enhance the general welfare of the Commonwealth and its citizens.

#### Market Value

SERS's venture capital investments had a \$152.0 million market value, 0.9% of the total Fund's \$16,185.1 million market value, on December 31, 1995. In addition, SERS had \$190.1 million in outstanding obligations to fund venture capital partnerships that represented 1.1% of the total Fund at December 31, 1995. Therefore, the combined market value of SERS's actual venture

capital investments and future obligations to fund such investments equaled \$342.1 million, or approximately 2.0% of the total Fund, as of December 31, 1995.

#### Number of Limited Partnerships

SERS has made commitments to 28 venture capital limited partnerships. As of December 31, 1995, SERS had paid in capital as a limited partner in 26 of those partnerships. Paid-in capital represents funds that have been drawn down by the venture capitalist and are readily available for investment.

#### Venture Capital Program

SERS's 28 venture capital limited partnerships are committed to include Pennsylvania-based companies as a part of their venture investment focus. The intent is to make venture capital investments in companies either headquartered in Pennsylvania or that provide employment for Pennsylvania citizens. As of December 31, 1995, SERS's venture capital limited partnerships had made approximately 35.0% of their investments in Pennsylvania-based companies since inception. In addition, venture capital managers backed by SERS have invested over \$129 million in Pennsylvania-based start-up companies since the SERS program began in 1985. SERS has committed \$380.5 million out of a total partnership capital pool (all investors in these funds) of \$2,695.8 million. Given that SERS effectively owns 14.0% of this pool, the sizable amount of capital invested in Pennsylvania-based companies indicates the effective use of leveraging additional sources of capital. A major component of the venture capital program is to diversify company investments across industries.

#### As of December 31, 1995, the program was well diversified across the following industry categories:

29%	computer related industries	26%	health-care related industries	15%	biotechnology
8%	telecommunications		financial services		consumer products
3%	industrial products		electronic products		restaurants
2%	retailing	1%	media services	1%	others

The venture program's financing stage focus varies: 18 of the limited partnerships have a diversified financing stage focus; four are focused on middle- and later-stage financing; five are focused on seed and early-stage financing; and one intends to make diversified stage financing available to minority-owned enterprises.

#### Venture Capital Committed, Drawn and Distributed as of December 31, 1995

In the chart below, Capital Committed represents SERS's capital committed to a venture capital limited partnership; Capital Drawn is that portion of SERS's capital commitments that was drawn or taken down by the venture capitalist and is readily available for investment; Market Value of Distributions shows the value of the distributions made from each limited partnership to SERS at the time of the transaction.

	Financing	SERS	Capital	Capital	Market Value o
Venture Capital	Stage	Initial	Committed	Drawn	Distributions
Limited Partnership	Focus	Funding	(\$ millions)	(\$ millions)	(\$ millions)
APA/Fostin	Diversified	9/30/87	\$20.0	\$20.0	\$38.3
Advent VII	Diversified	7/30/93	25.0	13.8	4.4
Bachow III	Diversified	11/9/94	25.0	8.2	0.0
CEO Ventures S	Diversified	7/29/87	1.0	1.0	0.7
CEO Ventures II	Diversified	7/14/89	7.5	7.5	0.7
Edison Ventures III	Diversified	3/1/94	25.0	12.5	0.0
Fairview Capital	Minority	9/28/94	10.0	1.0	0.0
Fostin Capital	Diversified	11/25/85	10.0	10.0	4.8
Fostin Capital II	Diversified	10/5/89	7.5	7.5	1.0
Grotech PA III	Diversified	6/29/90	3.0	3.0	0.5
Grotech PA IV	Diversified	11/1/93	25.0	10.4	0.5
Healthcare Venture III	Diversified	7/9/92	15.0	13.9	0.2
Keystone II	Middle/Later	11/25/85	10.0	10.0	20.6
Keystone IV	Middle/Later	7/21/93	15.0	8.0	3.1
NEA VI	Early/Later	3/2/94	25.0	11.9	0.6
NEPA Venture	Seed/Early	8/29/85	2.0	2.0	4.8
NEPA Venture II	Seed/Early	7/24/92	7.5	4.5	0.0
P/A Fund	Diversified	6/2/93	30.0	18.2	0.7
PNC Ventures I	Diversified	11/25/85	5.0	5.0	7.3
Pittsburgh Seed Fund	Seed	1/13/87	2.0	2.0	0.0
Point Venture Partners	Diversified	10/2/90	1.0	1.0	0.4
Polaris Venture Partners	Early Stage	*	15.0	0.0	0.0
RR&Z Private Equity Fund	Diversified	*	20.0	0.0	0.0
Sprout Capital VII	Diversified	2/24/95	18.0	3.6	0.0
Summit Ventures IV	Later	6/27/95	25.0	2.5	0.0
TDH-II	Diversified	11/25/85	9.0	9.0	13.0
Weston Presidio	Diversified	11/27/95	20.0	2.0	0.0
Zero Stage Capital II	Seed	4/30/87	2.0	2.0	0.4
Total			\$380.5	\$190.4	\$102.0

<sup>\*</sup>Commitment approved by the SERS Board of Trustees at the December 1995 meeting.

# Summary of Alternative Investments

SERS's alternative investment program has commitments to 11 leveraged buyout (LBO) partnership investments, four European venture capital/private equity partnership investments, one special situations/restructuring fund partnership investment, one distressed debt investment fund, two partnerships that invest in secondary interests, and one partnership that specializes in private equity buyout investments while incorporating an Employee Stock Ownership Plan (ESOP) in its acquisition strategy.

LBOs involve acquiring companies using borrowed funds. Usually the target company's assets serve as security for loans taken out by the acquirer. The acquirer repays the loans from cash flow of the acquired company. SERS invests as a limited partner in LBO partnerships formed for the purpose of providing funds, usually in the form of equity interests, for the acquisition of companies. Special situations/restructuring investments operate under a philosophy of flexibility to adapt to market fluctuations and opportunities that exist from the deleveraging of debt-laden companies. Investments are usually made in successful companies that carry high debt levels and seek to deleverage for a variety of reasons. Deleveraging is often used in an attempt to avoid a major restructuring or bankruptcy. Investments are usually "white squire" or friendly "influence block" in nature. A white squire invests in companies that could benefit from the capital and presence of a large and supportive shareholder. Investing in the secondary partnership market involves acquiring interests in established buyout and private equity funds by purchasing existing limited partnership positions at an opportune time in their economic lives and at discounts from their net asset values. Secondary transactions, through the timing of their investments, have the benefit of reduced risk for the asset class, without a reduction in the upside return. SERS is also a limited partner in four European-based venture capital limited

partnerships focused on private equity investing in France, Germany and the United Kingdom (U.K.). Unlike venture capital investing in the U.S., venture investing in Europe is private equity in nature, tends to occur at a much later stage and concentrates on lower technology industries.

#### **Policy**

SERS's 1995 Investment Plan targeted an eventual allocation of 3.0% of assets to the alternative investments asset class

#### Market Value

SERS's alternative investments program had a \$166.9 million market value, or 1.0% of the total Fund's \$16,185.1 million market value, on December 31, 1995. In total, SERS had committed to invest \$463.5 million in the alternative investments asset class.

#### Alternative Investments Program

The alternative investments program has commitments to 11 buyout-oriented partnerships. One is Pennsylvania focused; two are Midwest focused; one is focused in the West; two are global in nature; and five are nationally focused. Most are focused on small-to-medium capitalization companies. Only "friendly" acquisitions are pursued. All deals are non-hostile and privately negotiated. Most are non-auction and completed with present management in place. SERS's special situations/restructuring partnerships are nationally focused and can invest in small-to-large capitalization companies. SERS's acquisition/buyout partnership utilizes an ESOP strategy and makes only friendly acquisitions supported by a broad group of the company's management who invariably participate in the equity investment. Ownership is further expanded to other employes in the organization through the implementation of an ESOP strategy, which gives employes a sense of ownership and a financial stake in their company.

SERS's European venture capital investments are comprised of private equity investment in companies based in the U.K. and Europe. The four partnerships focus on the U.K., France, Germany and German-speaking countries. All four funds plan to take advantage of changes occurring within Europe, including the elimination of a number of trade barriers in the European economic community, the reunification of Germany and the disintegration of the former Soviet Union. European venture capital investing focuses on small, rapidly growing companies that do not have access to traditional sources of capital. SERS has committed to a partnership that specializes in distressed debt instruments by investing in debt obligations of financially distressed companies with a view toward converting debt into equity. Debt is converted into equity in order to obtain an equity oriented return.

The partnership is national in focus. Similarly, SERS has another investment, also in distressed debt, but views the opportunity for gains in the appreciation of the debt instrument itself and not the conversion into an equity position.

SERS has also committed to two partnerships that invest in secondary purchases. The partnerships have a national focus and specialize in secondary purchases of established buyout and venture capital holdings. The benefits of secondary purchases are two-fold: 1) They enable the selling limited partners to gain liquidity in an otherwise illiquid investment. (Ordinarily the selling limited partner needs liquidity for non-economic reasons.); and 2) the buyer of a secondary position can usually purchase the investment from a motivated seller at a substantial discount from net asset value.

#### Alternative Investments Committed, Drawn and Distributed as of Dec. 31, 1995

In the chart below, Capital Committed represents SERS's capital committed to each limited partnership; Capital Drawn is the portion of SERS's capital commitments drawn or taken

down by the general partner and readily available for investment; Distributions is the value of distributions made from each limited partnership to SERS.

Alternative Investments Limited Partnership	Geographic Focus	SERS Initial Funding	Capital Committed (\$ in millions)	Capital Drawn (\$ in millions)	Distribution (\$ in millions
APAX Capital Risque III	France	11/29/90	\$5.0	\$4.6	\$1.1
APAX German Ventures	Germany	1/30/91	5.0	3.6	2.0
Blackstone Capital II	Global	8/26/94	40.0	9.2	0.0
Brentwood Buyout Fund	National	11/21/88	10.0	10.0	1.2
Charterhouse Equity II	National & PA	3/30/94	40.0	22.8	1.6
Clayton, Dubilier & Rice V	National	5/3/95	50.0	0.6	0.0
Code, Hennessy & Simmons	Midwest & PA	9/28/89	10.0	9.4	12.6
Code, Hennessy & Simmons II	Midwest & PA	7/12/94	20.0	8.7	0.1
Hellman & Friedman II	National	1/7/92	25.0	24.6	6.0
Hellman & Friedman III	National	6/14/95	50.0	12.8	0.0
Kelso Investment Assoc. V	National & PA	1/26/94	40.0	23.9	3.5
Landmark Equity Partners IV	Secondaries	2/28/95	30.5	4.0	1.0
Landmark Equity Partners V	Secondaries	1/27/96	24.0	0.0	0.0
Madison Dearborn	National	2/23/93	15.0	8.8	1.3
Murphy & Fauver	National	10/11/88	5.0	5.0	1.4
OCM Opportunities Fund	Distressed Debt	*	24.0	0.0	0.0
RR&Z PA Fund #1	PA	3/2/88	10.0	10.0	18.1
Schroder Ventures UK III	UK	8/29/89	10.0	8.9	9.4
Schroder Ventures UK IV	UK	*	15.0	0.0	0.0
TCW Special Credits V	National	8/25/94	35.0	29.8	0.0
Total			\$463.5	\$196.6	\$59.3

\*Commitment approved by the SERS Board of Trustees at the December 1995 meeting.





# SECTION

Pennsylvania Investments



## Summary of Pennsylvania Investments

Members of the SERS Board, employes of SERS and agents of the Board stand in a fiduciary relationship to the members of SERS regarding the investments and disbursements of the Fund. Subject to restrictions on investments contained in the Retirement Code and the Fiscal Code, the Board has exclusive control and management of the Fund and full power to invest its assets. The Board adopted a formal Statement of Investment Policy in 1979 that has been revised to reflect and incorporate subsequent legislative changes governing investments. Where investment characteristics including yield, risk, and liquidity are equivalent, the Board's policy favors investments that have a positive impact on the

economy of Pennsylvania. SERS's investment portfolios have always had substantial investments in Pennsylvania firms, as some large national firms are headquartered in the Pittsburgh, Philadelphia and Harrisburg areas, including Bell Atlantic, Rite Aid, Westinghouse, Sun, Rohm & Haas, and H. J. Heinz. In addition, SERS has invested in portfolios designed to emphasize investments in Pennsylvania. As of December 31, 1995, SERS had \$1,075.6 million, or approximately 6.6% of SERS's total Fund, invested in Pennsylvania. Of this amount, SERS had placed \$627.9 million in portfolios specially designed for Pennsylvania investments.

#### Stocks

SERS has two Pennsylvania stock portfolios that increase exposure to "in-state" corporations. SERS's Pennsylvania stock universe is comprised of 553 publicly-traded corporations that: 1) name their headquarters as Pennsylvania and have Pennsylvania employes or operations; or 2) have Pennsylvania-based employment exceeding 25% of total corporate employment. Emerald Advisers, Inc., of Lancaster and Mellon Equity Associates of Pittsburgh actively manage portfolios for SERS

from our Pennsylvania stock universe. The market value of SERS's Pennsylvania stock portfolios was \$107.9 million as of December 31, 1995.

In addition to the Pennsylvania equity portfolios, SERS also had \$304.6 million invested in the 553 Pennsylvania stock universe companies as of December 31, 1995. These stocks were held in SERS's index funds and in SERS's actively managed portfolios.

#### Fixed Income

As of December 31, 1995, SERS had \$1.5 million invested in loans of the Pennsylvania Private Placement Separate Account designed by the Pennsylvania MILRITE Council and managed by Cigna. This account was created to provide long-term, fixed-rate loans to established Pennsylvania firms that do not have access to the public bond markets. SERS had \$175.7 million invested in Pennsylvania mortgages (\$164.5 million in conventional commercial, and \$11.2 million in

residential properties) as of December 31, 1995. The residential segment of this portfolio is comprised of competitive-rate mortgages distributed solely in Pennsylvania in accordance with SERS's policy to originate 100% of all residential mortgages within the Commonwealth. The commercial segment listed above is comprised of competitive-rate mortgages on various industrial, retail, apartment, and office complexes within Pennsylvania. Legg Mason,

## Pennsylvania State Employes' Retirement System

SERS's mortgage advisor, has committed on a best efforts basis under its fiduciary responsibility to invest between 15.0% and 30.0% of SERS's commercial mortgage portfolio in Pennsylvania and 100% of all residential mortgages in Pennsylvania. It is conservatively estimated that as of December 31, 1995, the various commercial projects financed within the Commonwealth by SERS under the commercial mortgage program directly employ over 5,000 workers. This figure does not, however, take into account those who

are employed in the property management and maintenance areas of these projects, nor does it consider the favorable "ripple effect" such jobs may have on the local economy. Additionally, SERS had approximately \$105.8 million invested as of December 31, 1995, in corporate securities issued by Pennsylvania-based companies; these securities are held in SERS's various externally-managed bond portfolios.

#### Cash

SERS is one of the largest investors in the Short-Term Investment Pool (STIP) managed by the Pennsylvania State Treasury Department. The STIP has significant holdings of 1) certificates of deposit issued by Pennsylvania-based financial institutions, 2) short-term notes and commercial paper issued by Pennsylvania-based companies, 3) notes and obligations of selected Pennsylvania state agencies, and 4) FNMA mortgage-backed securities backed by loans issued under Pennsylvania's Homestart program. The Homestart program is designed to encourage home ownership within the Commonwealth by making mortgages available to lower, moderate and middle-income Pennsylvania households.

#### Real Estate

SERS began investing directly in the Pennsylvania commercial real estate market in 1987 and subsequently established two separate account real estate portfolios managed by Heitman/JMB Advisory Corporation and RAI Advisers, Inc. To date these managers have committed to invest approximately 50.0% and 100%, respectively, of their initial allocation in Pennsylvania properties.

As of December 31, 1995, the SERS real estate portfolio contained 27 Pennsylvania investments totaling 6,646,673 square feet of office, retail, hotel, apartment, and warehouse space. The gross market value of these investments totaled \$455.0 million, of which SERS's ownership share was \$198.2 million.

## Venture Capital

The SERS venture capital program has committed \$380.5 million to 28 venture capital partnership funds. As a part of its focus, the program targets partnerships that can demonstrate the ability to make investments in companies either based in Pennsylvania or that employ Pennsylvania citizens. These partnerships are diversified among various geographic regions and financing stages

(including four seed funds designated by Pennsylvania's Ben Franklin Partnership). SERS, in conjunction with the Pennsylvania Public School Employes' Retirement System (PSERS), created the APA/Fostin Pennsylvania Venture Capital Fund in 1987 with a commitment of \$20.0 million from each fund. The partnership of Alan Patricof Associates/Fostin Capital manages



### 1995 Annual Financial Report

this venture capital fund with offices in Philadelphia and Pittsburgh. During 1992, SERS and PSERS committed \$30.0 million each to create the P/A Fund (formerly known as the APA/Fostin Pennsylvania Venture Capital Fund II), which will continue the focus on Pennsylvania venture capital investing.

A key aspect of the SERS venture capital program is the attraction of national funds into Pennsylvania investments. Alan Patricof Associates' expertise as the lead investor in the majority of their investments continues to provide Pennsylvania with a flow of venture capital money from numerous out-of-state funds and investors. The progress of Pennsylvania within the national venture capital community should reap substantial rewards in future years for both Pennsylvania and the SERS Fund. As of December 31, 1995, SERS's venture capital partnerships have attracted over \$340 million of out-of-state funds to finance their active venture companies based in Pennsylvania. After more than 10 years of venture investing, the SERS venture program continues to enhance the pool of venture capital available to Pennsylvania-based companies by attracting larger national venture capital funds into the state. Committed capital and managerial talent of these organizations could substantially increase business creation and job opportunities throughout Pennsylvania. These

national firms also bring investment capital reserves to Pennsylvania and provide a significant opportunity for SERS to leverage its venture capital dollars while promoting economic growth.

SERS has been active in seed and early-stage financing of Pennsylvania-based companies. SERS's investment in the NEPA Venture Fund has, during its 11-year history, provided investments in 26 Pennsylvania-based, technology oriented start-up companies. SERS's commitment to NEPA Venture Fund II will enable NEPA to cover the Pittsburgh area in addition to eastern Pennsylvania. The goal of NEPA Venture Fund II is to invest over the next five years in up to five start-up companies in the Pittsburgh area.

The limited partnerships funded by SERS have made investments in 70 Pennsylvania companies currently active within their portfolio as of December 31, 1995. The Pennsylvania portfolio companies, plus non-Pennsylvania-based companies currently active in SERS's portfolio, employ approximately 4,300 Pennsylvanians and anticipate a 1996 payroll of approximately \$160 million. As of December 31, 1995, \$190.4 million of the \$380.5 million committed to venture capital partnership funds had been drawn down for investment by the partnerships, and \$102 million had been returned to SERS.

#### Alternative Investments

In 1988, SERS invested \$10 million with RR&Z Pennsylvania Fund #1, a Pittsburgh-based buyout group that invested in non-hostile, "friendly," privately negotiated, non-auction deals completed with present management in place. The LBO fund focuses on small-to-medium capitalization companies (between \$5 million and \$100 million) within a 600-mile radius of western Pennsylvania. Since inception, RR&Z has returned over \$18 million to SERS and has successfully exited four of its five investments. Based on RR&Z's

performance, SERS committed \$20 million in 1995 to the RR&Z Private Equity Fund, a continuation of the strategy developed in Pennsylvania Fund #1. SERS's search for fund managers within alternative investments includes a focus on Pennsylvania-based companies. SERS's commitments to this asset class include Charterhouse Equity Partners and Kelso Investment Associates, which have made Pennsylvania a part of their focus by investing in Pennsylvania-based companies.





# SECTION

Investment and Program Trends



## Investment-Related Statistics: 1980 through 1995

	Market Volum	# of Investment Advisors	# of Portfolios	# of Consultants	Annual Total Fund Rate of Return (net of fees)
Year End	Market Value	Auvisors	1 Of tionos	Consultants	(net of fees)
1980	\$2,556,000,000	3	3	3	5.3%
1981	\$2,684,000,000	5	6	3	0.9%
1982	\$3,730,000,000	6	7	4	27.8%
1983	\$4,396,000,000	14	17	4	13.0%
1984	\$4,922,000,000	22	24	4	9.4%
1985	\$5,157,000,000	23	26	3	23.1%
1986	\$7,120,000,000	30	34	3	15.2%
1987	\$7,367,000,000	37	42	3	3.3%
1988	\$8,312,000,000	41	49	3	12.8%
1989	\$9,758,000,000	47	59	4	17.8%
1990	\$9,773,000,000	53	65	4	1.0%
1991	\$11,940,000,000	56	68	4	22.6%
1992	\$12,407,000,000	66	79	4	7.4%
1993	\$13,650,000,000	61	80	4	13.2%
1994	\$13,223,000,000	78	100	4	- 1.1%
1995	\$16,185,000,000	84	108	4	25.3%

## **Investment Performance by Asset Classes**

Calendar Year Basis through December 31, 1995\*
(net of fees)

Asset Class	One-Year Total Return	Three-Year Total Return	Five-Year Total Return	10-year Total Return
Domestic Stocks	37.0%	14.7%	17.4%	14.2%
Wilshire 5000 Index	36.5%	14.9%	17.3%	14.2%
International Stocks	6.5%	12.1%	10.3%	n/a
SERS Custom International Stock Benchmark	9.1%	17.7%	9.9%	n/a
Fixed Income	20.4%	9.9%	11.3%	10.4%
SERS Custom Fixed Income Benchmark	21.8%	9.2%	10.3%	10.0%
Cash	10.5%	7.0%	7.9%	8.1%
90-day U.S. Treasury Bills	5.9%	4.3%	4.6%	5.9%
<b>Tactical Asset Allocation</b>	35.5%	16.2%	15.9%	n/a
TAA Policy Benchmark	36.2%	15.8%	14.9%	n/a
Real Estate	7.6%	4.8%	0.5%	3.5%
Alternative Investments	11.9%	8.5%	6.4%	n/a
Venture Capital	27.4%	15.1%	13.5%	7.7%
Total Fund	25.3%	11.9%	13.0%	11.4%

<sup>\*</sup>Returns for periods longer than one year are annualized.



## **Prudent Person**

The SERS Board's investment authority is governed by the "prudent person" standard as set forth in Title 71, Pennsylvania Consolidated Statutes, Section 5931(a). Enactment of the prudent person standard in Act 1994-29 and a subsequent asset/liability study completed by RogersCasey and the SERS Investment Office staff are the foundation of SERS's Annual Five Year Investment Plan. With prudent person investment authority, SERS is able to pursue a broader array of investment opportunities that enhance the ability to achieve competitive rates of return while maintaining risk at acceptable levels. Studies undertaken by SERS have demonstrated that the prudent application of this expanded investment authority will result in a more efficient portfolio that better serves the needs of SERS.

## Projected Asset Allocation: 1996 through 1999

SERS's annual Investment Plan covers a period of five years. The Fund's asset allocation strategy evolves during this timeframe to achieve the long-term targets for each asset category. The planned evolution of the asset allocation strategy is reflected in the table below.

Asset Allocation Trend\*

<del></del>			1000	4000
	1996	1997	1998	1999
				5 C 50 /
Stocks	56.5%	56.5%	56.5%	56.5%
Fixed Income	25.3%	24.0%	23.0%	22.5%
Cash	1.0%	1.0%	1.0%	1.0%
Tactical Asset Allocation**	5.0%	5.0%	5.0%	5.0%
Real Estate	9.0%	9.5%	9.8%	10.0%
Venture Capital	1.5%	1.8%	2.0%	2.0%
Alternative Investments	1.7%	2.2%	2.7%	3.0%
	100.0%	100.0%	100.0%	100.0%

\*Source: SERS's 1995 Annual Five Year Investment Plan. \*\*TAA normal position is 70% stocks and 30% bonds. Numbers may not add due to rounding.

## Commissions Paid by SERS *Domestic* Separate Account Stock Advisors to Clearing Brokers: Calendar Year 1995

Broker	Commissions	Broker	Commissions
Lynch Jones & Ryan	\$471,905.60	ISI Group	\$15,582.00
Instinet	471,478.42	SEI Financial Services	15,403.00
Investment Technologies	385,472.63	C. J. Lawrence	15,141.00
Bear Stearns	312,887.99	Citation Group	14,380.00
CS First Boston	227,944.00	Factset Data Systems	13,295.80
Merrill Lynch	206,945.27	Lazard Freres	11,740.00
Goldman, Sachs	182,563.99	Soundview Financial Group	11,856.00
Lehman Brothers	155,760.08	Frank Russell Co.	11,441.00
Jefferies & Co.	119,782.88	Fahnestock & Co.	10,844.00
Morgan Stanley & Co.	114,146.80	Furman Selz Magerdie	10,518.00
Smith Barney	113,056.10	BT Securities	10,123.30
Lewco Securities	100,727.06	Quaker Securities	10,041.36
Capital Institutional Services	98,658.00	Invemed Associates	8,581.00
Donaldson Lufkin & Jenrette	90,535.40	J. P. Morgan Securities	8,046.00
Salomon Brothers	89,858.84	Dean Witter Reynolds	7,866.00
Neuberger & Berman	81,939.00	National Financial Services	7,848.60
Robertson Stephens	78,486.00	Howard Weil	7,580.00
Rochdale Securities	75,262.00	Goldis Pittsburg Institutional Services	7,410.00
W. R. Lazard & Laidlaw	72,342.00	Trinity Securities	7,362.00
York Securities	66,990.00	The Chicago Corporation	7,218.00
Broadcort Capital	63,698.14	Kalb Voorhis & Co.	7,218.00
Montgomery Securities	57,750.00	Interstate/Johnson	7,152.00
Wilshire Associates	57,511.40	Janney Montgomery Securities	7,033.50
NatWest Securities	54,194.00	Gruntal & Company	7,024.00
Cowen & Co.	53,317.00	Equitable Securities	6,408.00
Paine Webber	51,326.22	Legg Mason Wood Walker	6,182.00
Alex Brown & Sons	49,954.00	Ernst & Co.	
Prudential Securities	47,045.96	Blair, William & Co.	5,519.00
Sanford C. Bernstein	46,425.30	Dillon, Read & Company	5,260.00
Execution Services	44,586.45	Wessels, Arnold & Henderson	4,638.00
Jones & Associates	37,747.20	Bridge Trading	4,806.00
Deutsche Bank Capital	37,392.00	Raymond W. Baird & Co.	4,416.00
Autranet	34,390.00	Gerard Klauer Mattis	4,272.00
Oppenheimer & Co.	32,900.00	Cantor Fitzgerald	4,224.00
Correspondent Services	28,677.00	Jackson Partners & Associates	4,043.00
Standard & Poor's Securities	28,590.20	Tucker Anthony & D. D.	3,708.00
Weeden & Company	28,361.00	Tucker, Anthony & R L Day	3,355.00
S.G. Warburg & Company	27,545.00	Raymond James & Associates Hefren Tillotson	2,958.82
Fidelity Capital Markets	25,214.00		2,149.20
Alpha Management	23,070.00	Weiss, Peck & Greer	3,144.00
J. Streicher	22,215.00	McDonald & Co.	3,006.00
Wheat First Securities	20,621.50	Abel Noser	2,604.00
Fox Pitt Kelton	17,319.50	Davis, Mendel & Regenstein	2,500.00
UBS Securities	17,086.00	Robinson - Humphrey Co.	2,330.00
Roulston Research Company	15,865.00	Boston Institutional	2,100.00
Keefe Bruyette & Woods	15,613.74	Wedbush Morgan Securities	2,073.00
	10,013.74	Other Brokers (49)	35,969.64
		Total Games (143)	
		Total Commissions	\$4,811,527.89

## Commissions Paid by SERS International Separate Account Stock Advisors to Clearing Brokers: Calendar Year 1995

Broker	Commissions	Broker	Commissions
Goldman Sachs	\$342,366.65	SBC Warburg	\$20,483.05
Merrill Lynch	288,243.32	Prudential Securities	20,051.79
lames Capel	262,122.84	BSN Sociedad Devalor	18,742.40
RZW Securities	254,514.78	Dai Ichi Securities	18,474.49
Credit Lyonnais	232,791.98	InverMexico	18,215.11
VatWest	183,006.19	Panmure Gordon	17,162.07
Morgan Stanley	176,949.34	Nikko Securities	16,817.50
Baring Securities	172,476.68	Bain Securities	16,397.53
BS Securities	133,199.77	Asia Equity	15,521.73
Geinwort Benson	124,516.55	Acciones Y Valores	14,212.01
G. Warburg & Co.	116,949.37	Potter Warburg Securities	13,575.53
Warburg Securities	113,339.28	Jeffries & Co.	13,112.10
mith New Court	111,321.90	Smith Barney	12,902.55
ehman Brothers	109,678.11	RBC Dominion Securities	12,848.69
	87,392.91	Fox Pitt Kelton	12,511.27
obert Fleming & Co.	87,197.21	PT Makindo Indonesia	12,393.63
omura Securities		CIBC/Wood Gundy	11,865.09
ear Stearns	85,212.33	Exane Paris	11,086.15
alomon Brothers	83,736.60	New Japan Securities	10,965.05
rdine Fleming	78,128.80	McIntosh & Co.	10,848.59
arx Casenave & Co.	70,684.84	Albert E Sharp & Co.	10,299.89
arclays Trust & Banking	66,927.92	Bridge Trading	10,228.10
osby Securities	54,652.68	Svenska International	9,959.42
aranitia	52,206.29	Macquarie Bank Sydney	9,046.39
ciete Generale	49,331.85	Tiedemann Securities	8,135.34
edgeling Securities	48,099.82	Schroder Securities, Inc.	7,370.38
ctet & Company	48,015.01	Sanyo Securities	7,364.28
oare Govett	45,466.49	Rand International	7,230.46
. I. Carr	41,428.50		7,131.89
regrine Brokerage	38,274.46	Morgan Grenfell	6,899.2
S First Boston	36,909.86	Indeval Rowan Dartington & Co.	6,819.53
viss Bank	35,399.94	Worldsec International Securities	6,704.5
fted Berg	33,258.10	Worldsec International Security	6,442.5
ertheim & Co.	31,414.39	Bank Vontobel Enskilda Securities	6,355.6
ba Nordic Securities	31,082.25	1-	6,263.3
yundai Securities	30,152.23	_	6,107.0
heuvreux de Virieux	29,058.76		6,085.6
aribas	28,269.87	Pacific Equity Ltd.	6,079.9
aiwa Securities	25,941.95	Kim Eng Securities	6,028.3
mhold & S. Bleichroeder	25,765.38	Carnegie	6,022.0
P. Morgan	25,594.24	Instinct	176,824.0
Ord Minnett	23,363.1	Other Brokers (80)	,
G. K. Goh	22,282.0	Total Brokers (162)  Total Commissions	\$4,558,309.0

## Commissions Paid by SERS Separate Account Stock Advisors to Clearing Brokers; 1995-1994 Comparison

 1995
 1994

 Domestic Commissions
 \$4,811,527.89
 \$3,915,049.91

 International Commissions
 \$4,558,309.04
 \$2,664,239.08

 Total Commissions
 \$9,369,836.93
 \$6,579,288.99

The SERS 1994 Annual Financial Report listed domestic commissions only. As of our 1995 report, SERS is listing both domestic and international commissions and total commissions paid during the calendar year. Domestic, international and total commissions for calendar year 1994 are provided here for comparison.



## **Deferred Compensation Program**

Act 1987-81 assigned to the SERS Board the responsibility to establish and administer an IRC Section 457 Deferred Compensation Program for Commonwealth officers and employes. Through this program, participants volunteer to build retirement savings by deferring a portion of their salary among seven investment options. The options are U.S. Short Term Money Market, U.S. Aggregate Bond Index, Enhanced U.S. Tactical Asset Allocation, U.S. Extended Market (small to mid-cap), EAFE Equity Index (international stocks), U.S. Stock Index and U.S. Stable Value funds.

## 1995 Highlights

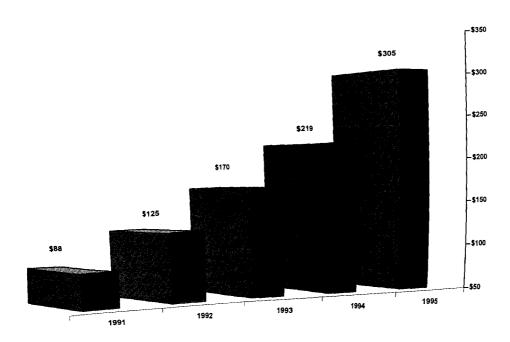
Effective July 1, 1995, as a result of research presented to the Board, the Modified Fixed Annuity product managed by the American United Life Insurance Company (AUL) was changed. Two separate pools of assets were established and the returns blended to form the Stable Value Fund option. The change encompassed the following steps:

- Hiring of Miller, Anderson & Sherrerd (MAS) to manage an active bond pool of assets. This portion of the Stable Value Fund received an initial transfer of over \$40 million from the AUL pool of assets. All future contributions will be directed to this pool.
- Hiring of Providian Capital Management to provide a guaranteed crediting rate for each quarter on the MAS active bond pool.
- Continued use of AUL to manage the balance of the Stable Value Fund's assets. The Board's effort to reduce credit risk exposure will continue with periodic transfers of AULmanaged assets into the active bond pool.

## Growth of the Program 1991-1995

During the period from December 31, 1991, through the end of 1995, Deferred Compensation Program assets more than tripled in value from approximately \$88 million to over \$305 million. As of December 31, 1995, there were 22,500 active participants in the program, and the total market value of investments was \$305,723,646.

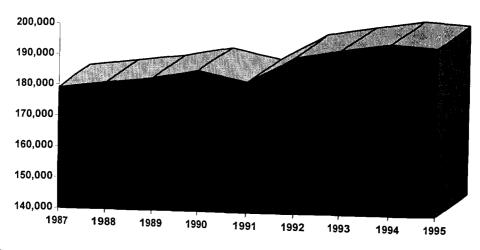
## Deferred Compensation Program assets, 1991 through 1995 (\$ in millions)



## **Member Demographics**

Year Ending	Total	Active	Former Employes
December 31	<u>Members</u>	<b>Employes</b>	& Survivors
1995	193,841	112,637	81,204
1994	194,955	114,120	80,835
1993	192,652	111,962	80,690
1992	190,101	109,609	80,492
1991	181,971	105,731	76,240
1990	185,470	111,248	74,222
1989	182,649	109,819	72,830
1988	180,927	109,611	71,316
1987	179,014	109,499	69,515

## Number of SERS members, 1987 through 1995



Sources: SERS annual Actuarial Reports prepared by Hay/Huggins Company.

## Profile of Active Employes as of December 31, 1995

Average Age 44.36 Average Years of Service 14.17

# Profile of Annuitants, Beneficiaries and Survivor Annuitants as of December 31, 1995

Average Age	Average Pension
73.9	\$9,801
57.3	\$7,838
59.4	\$7,329
75.1	\$4,732
	73.9 57.3 59.4

Source: SERS 1995 Actuarial Report, Hay/Huggins Company.

Hay/Huggins Company, Inc. Actuarial and Benefits Consultants 1500 K Street, N.W Washington, DC 20005-1298 Tel: (202) 637-6600

Fax: (202) 637-0160

June 19, 1996

-lav/Huggins Company

Retirement Board Pennsylvania State Employes' Retirement System 30 North Third Street Harrisburg, PA 17101

Dear Board Members:

An actuarial valuation was last performed as of December 31, 1995 to determine actuarial liabilities under the Pennsylvania State Employes' Retirement System. The valuation was carried out in accordance with sound actuarial principles in a manner which, in my opinion, reflects the applicable provisions of the State Employes' Retirement Code. The valuation also served as the basis for determining the contributions required to be made by the Commonwealth to fund the liabilities of the System.

Valuations are made annually based on data supplied by the staff of the Retirement board. The experience under the Retirement System is reviewed every five years. The last such review was for the period of 1991 to 1995. The results of the review are used to develop the assumptions underlying the actuarial valuations. Thus, required contributions are determined on a sound actuarial basis reflecting actual experience under the system.

Sincerely,

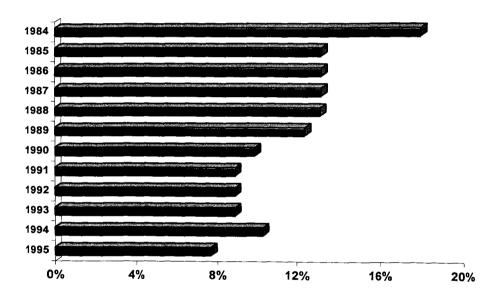
Edwin C. Hustead Senior Vice President

## **Contribution Rates**

As noted elsewhere in this report, SERS's investments have produced an annualized 10-year investment rate of return of +11.4% after fees, an annualized five-year investment rate of return of +13.0% after fees, and a +25.3% total investment rate of return after fees for the year ended December 31, 1995. As reported in the annual Actuarial Reports produced for SERS by

independent actuary Hay/Huggins Company, the Commonwealth's total employer contribution rate was as high as 18.87% of payroll in 1981. Due in part to the substantial investment returns achieved in 1995 and based on the 1995 Actuarial Report, the actual employer contribution rate in 1995 was reduced from the 1994 rate of 10.27% of payroll to 7.69% of payroll.

### Employer contribution rate by year of valuation, 1984 through 1995\*



<sup>\*</sup>The total employer cost is the actual contribution rate during the succeeding fiscal year. For instance, the 1995 rate of 7.69% will be the employer contribution rate for fiscal year 1996-1997. Source: SERS 1995 Actuarial Report, Hay/Huggins Company.

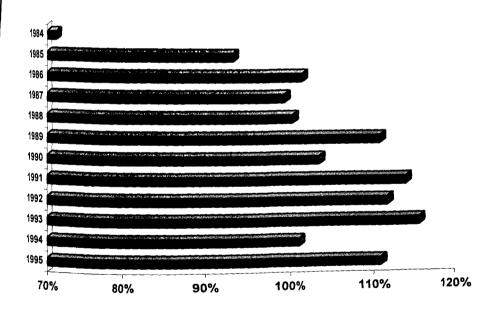


## **Funded Status**

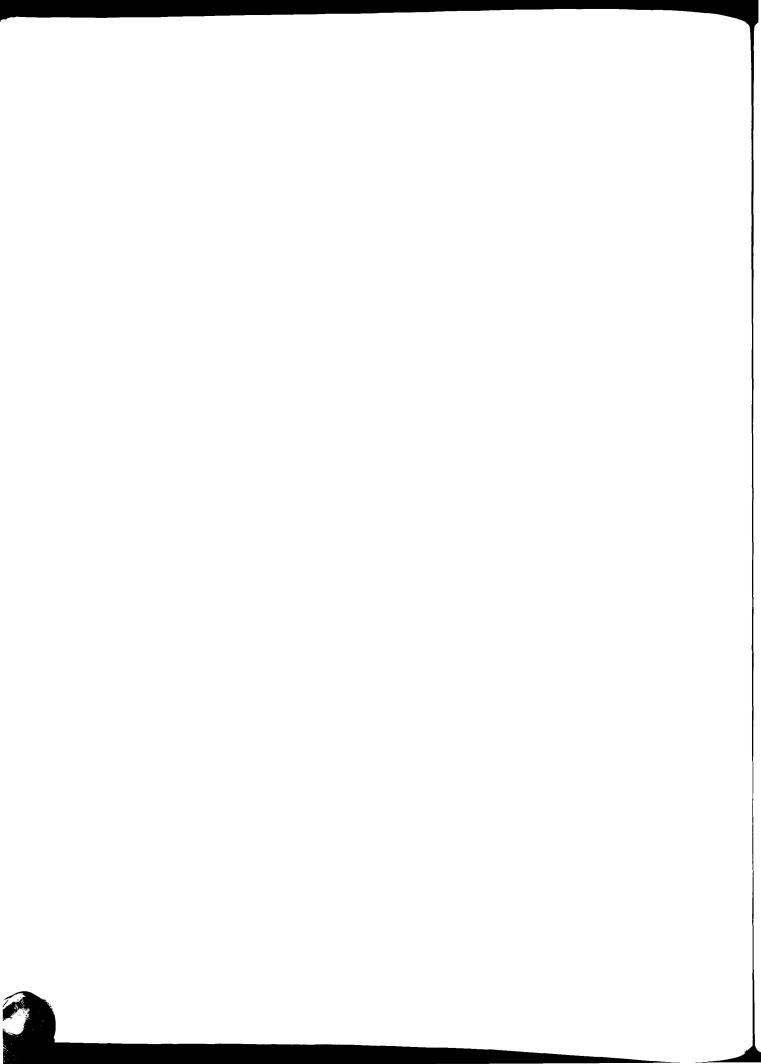
Annually, the SERS consulting actuary performs an actuarial valuation, determining, among other things, the funded status of the benefit plan. In 1992, for the first time, the actuarial value of assets exceeded the actuarial accrued liability, meaning the plan attained fully-funded status, with adequate reserves set aside for past service liabilities.

Another measure of funded status adopted by the accounting and actuarial professionals measures the market value of assets against the projected benefit obligation (PBO). The PBO is calculated in conformance with the requirements of Statement No. 5 of the Governmental Accounting Standards Board (GASB). These requirements detail disclosure standards for public pension systems. Under this method of calculation, SERS was 111.2% funded as of December 31, 1995. The recent history of the funded status according to the GASB methodology is depicted below.

SERS funded ratio, 1984 through 1995, in accordance with the Governmental Accounting Standards Board (GASB)\*



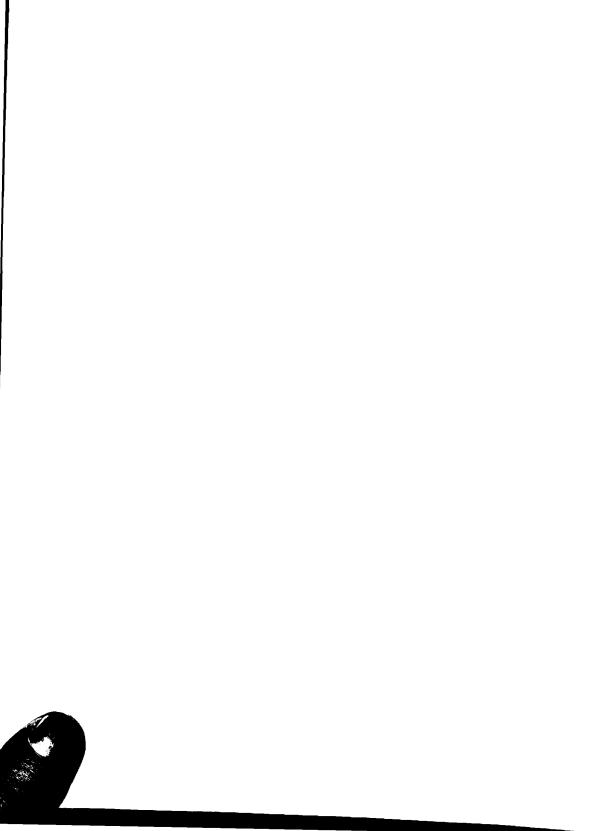
\*Source: SERS actuary, Hay/Huggins Company.





# SECTION

Report of Independent Accountants



## Coopers &Lybrand

Coopers & Lybrand L.L.P.

a professional services firm

## REPORT OF INDEPENDENT ACCOUNTANTS

Board of Trustees
Commonwealth of Pennsylvania
State Employes' Retirement System:

We have audited the statements of net assets available for benefits of the Commonwealth of Pennsylvania State Employes' Retirement System (System) as of December 31, 1995 and 1994 and the related statements of changes in not assets available for benefits for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we planted perform the audit to obtain reasonable assurance about whether the financial statements are free of material mistatement. 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 audits provide a resonable basis for our opinion.

Inouropinion, the financial statements referred to above present fairly, in all material respects, the financial status of the Commonwealth of Pennsylvania State Employes' Retirement System as of December 31, 1995 and 1994, and the changes in its financial status for the years then ended in conformity with generally accepted accounting principles.

Asexplained in Note 2, the financial statements include investments in real estate, mortgage loans and venture capital valued at \$1,976,676,000 and \$1,862,652,000 as of December 31, 1995 and 1994, respectively (approximately 12% and 14% of net assets as of December 31, 1995 and 1994, respectively), whose values have been estimated by the Board of Trustees, in the absence of readily ascertainable market values. We have reviewed the procedures used in arriving at the estimated values of such investments and have inspected underlying documentation, and, in the circumstances, we believe the procedures are reasonable and the documentation appropriate. However, because of the inherent uncertainty of valuation, those estimated values may differ significantly from the values that would have been used had a ready market for the securities existed, and the differences could be material.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The Supplementary Information is presented in accordance with Statement No. 5 of the Governmental Accounting Standards Board for purposes of additional analysis and is not a required part of the basic financial statements. Such information for the years 1986 through 1995 has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated, in all material respects, in relation to the basic financial statements taken as a whole. We previously audited and expressed unqualified opinions on the basic financial statements for the years 1988 through 1994. Such information for the years 1986 and 1987 has been subjected to the auditing procedures applied in the audits of the basic financial statements which were audited by other auditors, whose reports thereon expressed unqualified opinions, and, in their opinion, such information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Coopers & hybrand 1.1.P.

One South Market Square Harrisburg, Pennsylvania May 31, 1996



## COMMONWEALTH OF PENNSYLVANIA STATE EMPLOYES' RETIREMENT SYSTEM

## STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

#### as of December 31, 1995 and 1994

	<u>1995</u> (000's on	<u>1994</u>
ASSETS	(000 8 01	miled)
investments at fair value: United States Government securities Corporate and foreign bonds and notes	\$ 1,588,912 2,096,242	\$ 1,607,874 1,918,772
Common and preferred stocks, including collective trust funds Temporary investments	10,012,738 504,691 448,233	7,588,253 193,641 642,265
Mortgage loans Real estate Venture capital	1,191,322 337,121	988,568 231,819
Total investments	16,179,259	13,171,192
Contributions receivable: Employers Employes Accrued investment income and other receivables Cash	99,214 1,509 77,772	84,587 2,854 82,156
Total assets	16,357,754	13,340,790
LIABILITIES  Accounts payable and accrued expenses Due to brokers	(13,039) ————————————————————————————————————	(9,283) (1,231) (10,514)
Total liabilities  Contingencies (see Note 7)		
METASSETS AVAILABLE FOR BENEFITS	<u>\$16,344,715</u>	<u>\$13,330,276</u>

The accompanying notes are an integral part of the financial statements.

## COMMONWEALTH OF PENNSYLVANIA STATE EMPLOYES' RETIREMENT SYSTEM

## STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

#### for the years ended December 31, 1995 and 1994

	<u> 1995</u>	<u>1994</u>
	(000's omitted)	
ADDITIONS:		
Investment income:		
Net appreciation (depreciation) in fair value		
of investments	\$ 2,761,871	\$ (749,290)
Interest	357,963	478,647
Dividends	162,068	145,192
Other	78,700	69,900
	3,360,602	(55,551)
Less investment expenses	38,240	39,254
Contributions:	3,322,362	(94,805)
Employers	384,506	2.42.027
Employes		342,927 193,204
Total additions	_3,908,587	441,326
DEDUCTIONS:		
Benefits and refunds paid to participants	050	
Administrative expenses	879,717	796,371
	<u>14,431</u>	<u>15,566</u>
Total deductions	894,148	<u>811,937</u>
Net increase (decrease)	3,014,439	(370,611)
Net assets available for benefits at beginning of year	13,330,276	13,700,887
Net assets available for benefits at end of year	<u>\$16,344,715</u>	<u>\$13,330,276</u>

The accompanying notes are an integral part of the financial statements.



## COMMONWEALTH OF PENNSYLVANIA STATE EMPLOYES' RETIREMENT SYSTEM

### NOTES TO FINANCIAL STATEMENTS

## Description of the System:

The State Employes' Retirement System (System) is the administrator of a cost-sharing multiple-employer retirement system established by the Commonwealth of Pennsylvania (Commonwealth) to provide pension benefits for employes of state government and certain independent agencies. At December 31, 1995, there were 109 participating state and independent agencies. The System is considered part of the Commonwealth of Pennsylvania financial reporting entity and is included in the Commonwealth's financial reports as a pension trust fund.

Membership in the System is mandatory for most state employes. Members and employes of the General Assembly, certain elected or appointed officials in the executive branch, department heads and certain employes in the field of education are not required, but are given the option to participate. At December 31, 1995 and 1994, System membership consisted of:

	<u>1995</u>	<u>1994</u>
Retirees and beneficiaries currently receiving benefits and terminated employes entitled to benefits but not yet receiving them	84,928	85,290
Current employes: Vested	67,594 45,043	66,320 47 <b>,8</b> 00
Nonvested  Total members	<u>197,565</u>	<u>199,410</u>

The System provides retirement, death, and disability benefits. Retirement benefits vest after 10 years of credited service. Employes who retire at age 60, or with 35 years of service if under age 60, are entitled to a normal annual retirement benefit. Members of the legislature and certain employes classified in hazardous duty positions can retire with full benefits at age 50.

## 1. Description of the System, continued:

The general annual benefit is 2% of the member's highest three-year average salary times years of service. Members of the legislature who were members of the System before March 1, 1974 are entitled to a benefit of 7.5% of final average salary for each year of legislative service. State police are entitled to a benefit equal to a percentage of their highest annual salary, excluding their year of retirement. The benefit is 75% of salary for 25 or more years of service and 50% of salary for 20-24 years of service.

Covered employes are required to contribute to the System at a rate of 5% of their gross pay. A higher contribution rate of 18.75% is required of members of the General Assembly in office prior to March 1, 1974. Judges and district justices have the option of electing special membership classes requiring a contribution of 10.0% and 7.5%, respectively, regardless of their date of entry into state employment. The contributions are recorded in an individually identified account which is also credited with interest, calculated quarterly to yield 4% per annum, as mandated by statute. Accumulated employe contributions and credited interest, which amounted to \$2,499,485,000 and \$2,353,000,000 as of December 31, 1995 and 1994, respectively, vest immediately and are returned to the employe upon termination of service if the employe is not eligible for other benefits.

Participating agency contributions are also mandated by statute and are based upon an actuarially determined percentage of gross pay that is necessary to provide the System with assets sufficient to meet the benefits to be paid to System participants.

According to the retirement code, all obligations of the System will be assumed by the Commonwealth should the System terminate.

## 2. Significant Accounting Policies:

#### Basis of Accounting:

The financial statements are prepared using the accrual basis of accounting, under the provisions of Financial Accounting Standards Board No. 35, "Accounting and Reporting by Defined Benefit Pension Plans." The System follows Statements No. 3, "Deposits with Financial Institutions, Investments (Including Repurchase Agreements), and Reverse Repurchase Agreements," and No. 5, "Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Governmental Employers," of the Governmental Accounting Standards Board (GASB) for reporting and disclosure purposes.

## Significant Accounting Policies, continued:

## Use of Estimates:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. These significant estimates include the accumulated plan benefits and market values of investments. Actual results could differ from those estimates.

## Risks and Uncertainties:

Plan contributions and the actuarial present value of accumulated plan benefits are prepared based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, this at least reasonably possible that changes in these estimates and assumptions in the near term could have a material impact on the financial statements.

## Valuation of Investments:

The System records its investments at fair value which is determined differently for each investment type. Marketable securities, which consist primarily of debt and equity securities, are stated principally at market value. Securities traded on a national securities exchange are valued at the last principally at market value. Securities traded on a national securities which were not traded on reported sales price on the last day of business of each plan year. Securities which were not traded on a national securities exchange are valued by the last day of the plan year or which were not traded on a national securities exchange are valued by the respective fund manager or other third parties based on similar securities sales. Temporary investments are valued at cost, which approximates market value.

The fair value of the participation units owned by the System in the collective trust funds was based on quoted redemption value on the last business day of the year.

Mortgage loans are valued by the mortgage advisors using a discounted cash flow method. Venture capital pools are stated at fair values as determined principally by the respective general partners of the respective capital funds and accepted by the respective valuation committees. The valuation committees and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition, operating results and the nature of the consider various factors including financial condition.

## 2. Significant Accounting Policies, continued:

#### Valuation of Investments, continued:

Real estate investments are stated at estimated fair market value based on an appraisal report prepared by an independent real estate appraiser (member of the American Institute of Real Estate Appraisers). This estimated fair market value is determined in accordance with the policies and procedures of the American Institute of Real Estate Appraisers. This estimated fair market value does not necessarily represent the price at which the investment would sell since market prices of real estate investments are determined by negotiation between a willing buyer and seller. As a result, actual sales price may differ from the fair market value estimates. Management believes that this estimated fair market value is a reasonable approximation of market price.

The System presents in the statements of changes in net assets available for benefits the net appreciation (depreciation) in the fair value of its investments which consists of the realized gains or losses and the unrealized appreciation (depreciation) on those investments. Realized gains or losses on sales of investments are determined on a specific identification or average cost basis, depending upon the type of investment.

## 3. Funding Status and Progress:

The amount shown as "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employe service to date. The measure is the actuarial present value of credited projected benefits and is intended, on an ongoing basis, to facilitate the assessment of the System's funding status and progress made in accumulating sufficient assets to pay benefits when due and to allow for appropriate comparison of this data among public employe retirement systems. The pension benefit obligation is calculated based on GASB Statement No. 5 and is independent of the actuarial funding method used to determine contributions to the System as discussed in Note 4.

The pension benefit obligation was determined as part of an actuarial valuation at December 31, 1995 and 1994. Significant actuarial assumptions used include (a) a rate of return on the investment of present and future assets of 8.5% and 9.25% per year compounded annually in 1995 and 1994, respectively, (b) projected salary increases of 3.3% and 4.0% per year compounded annually in 1995 and 1994, respectively, (c) additional projected salary increases of approximately 3.5% and 2.7% in 1995 and 1994, respectively, attributable to merit/promotion, and (d) no post-retirement benefit increases.



## and Progress, continued:

granion benefit obligation at December 31, 1995 and 1994 is as follows:

Te britain a	1995 (000's om	<u>1994</u> itted)
Retirees and beneficiaries currently receiving benefits and terminated employes entitled to benefits but not yet receiving them	\$ 5,715,086	\$ 5,117,258
Current employes: Accumulated employe contributions and credited interest Employer-financed, vested Employer-financed, nonvested	2,468,148 6,004,866 559,013	2,349,731 5,219,026 485,856
Total pension benefit obligation	14,747,113	13,171,871
Vet assets available for benefits, at fair value	16,344,715	13,330,276
Net assets in excess of pension benefit obligation	<u>\$ 1,597,602</u>	<u>\$ 158,405</u>

comparative 10-year summary of the pension benefit obligation, which has been calculated in sufficient with the requirements of GASB Statement No. 5, is presented as supplementary command to the requirements of GASB Statement No. 5, is presented for purposes command to the notes to the financial statements. This information is presented for purposes additional analysis of the System's progress in accumulating sufficient assets to pay benefits when additional analysis of the System's progress in accumulating sufficient assets to pay benefits when the calculation of the pension benefit obligation under GASB Statement No. 5 differs from the standard required under Financial Accounting Standards Board (FASB) Statement No. 35 of the standard present value of accumulated plan benefits principally by the consideration of future salary can present value of accumulated plan benefits principally by the consideration of future salary can be seen to the pension benefit obligation under GASB Statement No. 35 of the standard present value of accumulated plan benefits principally by the consideration of future salary can be seen to the pension benefit obligation under GASB Statement No. 35 of the salary present value of accumulated plan benefits principally by the consideration of future salary can be seen to the pension benefit obligation under GASB Statement No. 35 of the salary present value of accumulated plan benefits principally by the consideration of future salary can be seen to the pension benefit obligation under GASB Statement No. 35 of the salary present value of accumulated plan benefits principally by the consideration of future salary can be seen to the pension benefit obligation under GASB Statement No. 35 of the salary present value of accumulated plan benefits principally by the consideration of future salary can be salary present value of accumulated plan benefits principally by the consideration of the pension benefits principally by the consideration of future salary present value of accumulated plan bene

#### 3. Funding Status and Progress, continued:

The significant actuarial assumptions used in the valuations of the actuarial present value of accumulated plan benefits under FASB Statement No. 35 as of December 31, 1995 and 1994 are as follows:

Mortality:	
------------	--

Superannuation (normal retirement) and early retirement

Current Retirees, Beneficiaries and Survivors:

The 1971 Group Annuity Mortality Table, set back

6 years for females

Current and Future Employes:

The 1983 Group Annuity Mortality Table

Disability

Modifications of the Federal Civil Service Disability

Mortality Table

Assumed rate of return on

investments

7.25% and 7.75% in 1995 and 1994, respectively

The accumulated plan benefit information at December 31, 1995 and 1994 is as follows:

Actuarial present value of accumulated plan benefits:  Vested benefits:	<u>1995</u> (000's	1994 comitted)
Participants currently receiving payments Other participants	\$ 6,109,425 6,222,296	\$ 5,551,363 5,654,105
Nonvested benefits	12,331,721 254,196	11,205,468 200,517
Total	<u>\$12,585,917</u>	<u>\$11,405,985</u>

## funding Status and Progress, continued:

The changes in the actuarial present value of accumulated plan benefits for the years ended December 31, 1995 and 1994 are as follows:

19) and 177 ( =-		
	1995 (000's c	<u>1994</u> omitted)
Actuarial present value of accumulated plan benefits at January 1	\$11,405,985	\$10,631,427
Increase (decrease) during the year attributable to: Passage of time and other causes Change in plan provisions	522,143	421,308 353,250
Change in actuarial assumptions: Interest rates Mortality tables	300,740 <u>357,049</u>	
Actuarial present value of accumulated plan benefits at December 31	<u>\$12,585,917</u>	\$11,405,985

The actuarial assumption change causing the largest increase in cost in 1995 was the change in the demographic assumption from the 1971 Group Annuity Mortality Table (GAM - 71) to the 1983 Group Annuity Mortality Table (GAM - 83) for current and future employees to reflect continuing mortality improvement. The GAM - 71 table continues to apply for current retirees.

The 1994 change in plan provisions resulted primarily from Act 1994-29 (the Act) which was enacted MApril 29, 1994 and, among other things, provided a cost of living adjustment (COLA) to annuitants and a effective date of retirement on or prior to June 30, 1992. The COLA provides for an additional and of retirement of or prior to Julie 30, 1992. The Act also provides for a monthly annuity of between 1.50% to 7.90% based on date of retirement. The Act also provides for a monthly longevity supplement for members with 20 or more years of service with a date of retirement on or before July 1, 1984.

The System funding policy provides for periodic member contributions at statutory rates and employer contributions tunuing policy provides for periodic member contributions at saturation and gross pay) that are contributions at actuarially determined rates (expressed as a percentage of annual gross pay) that are contributions at actuarially determined rates (expressed as a percentage of annual gross pay) that are sufficient to accumulate assets to pay benefits when due. All required contributions were made for the Years 1995 and 1994.

#### 4. Contributions, continued

Employer contribution rates are determined using the entry age normal actuarial cost method, with amortization of the unfunded actuarial liability and of supplemental annuities arising from cost of living and other adjustments over 20-year periods. These rates are computed based upon actuarial valuations on the Commonwealth's fiscal year of June 30; therefore the employer contribution rates in effect for the System's year end of December 31 reflect a blended average of the rates as calculated. The blended contribution rates were as follows:

	<u>1995</u>	<u>1994</u>
Employer normal cost	10.48%	10.02%
Amortization of unfunded actuarial asset	(2.30)	(2.13)
Amortization of supplemental annuities	1.22	1.01
Total employer cost	<u>9.40</u> %	<u>8.90</u> %

The make-up of employer cost reflects the System's assumptions, primarily as they relate to investment returns, future salary increases and acts of legislature, thereby reallocating the components of total employer cost.

Significant structural changes have occurred based on the 1991 through 1995 study of the actuarial experience of SERS. These changes affect the actuarial assumptions used to compute employer's contribution requirements. The most significant structural change was to move to a flat assumed rate of return of 8.5%. The prior year valuation had been based on an investment rate assumed to be 9.9% through 2000 and then graded down to 6% after 2015 which was equivalent to the 9.25% investment return rate used in the projected benefit obligation calculation in 1994. The change to the flat rate of 8.5% will reduce the employer cost effective for the Commonwealth's fiscal year beginning July 1. 1996.



## investments:

As provided by statute, the System's Board of Trustees (Board) has exclusive control and management responsibility of System funds and full power to invest the funds. In exercising its fiduciary responsibility to System membership, the Board is governed by the "prudent person" rule, which requires the exercise of due care in establishing investment policy, and has adopted its Statement of Investment Policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, defines permissible investments of the System, including all investment types held in the portfolio at December 31, 1995 and 1994 and at all times during the years.

The investments of the System at December 31, 1995 and 1994 have been categorized to indicate the level of risk assumed by the System, in accordance with GASB Statement No. 3. In accordance with a contractual relationship between the Commonwealth's Treasury Department and a custodial agent, substantially all securities subject to categorization are held in book entry form in a unique account so as to be identified at all times as the possession of the Commonwealth; all such investments, as well as certain securities held in physical form at the Commonwealth's Treasury Department, the statutory custodian of the Fund, are reflected in Category 1, which is defined as securities insured or registered, or held by the System or its agent in the System's name. GASB Statement No. 3 provides for Category 2 and 3 investments, which reflect a higher risk. The System has no holdings of these types at December 31, 1995 and 1994. Certain investments have not been categorized because securities are not used as evidence of the investment. The investments not categorized include ownership interests in collective trust funds, mortgage loans, real estate and venture capital pools.

#### 5. Investments, continued

Summary of Investment Risk		ir Value
Category 1:	1995 (000°,	s omitted)
United States Government securities Corporate bonds and notes Common and preferred stocks International securities	\$ 1,013,019 1,844,235 2,043,836 _1,849,990	\$ 1,296,836 1,635,910 2,330,872 
Not Categorized: Investments held by broker/dealers under reverse repurchase agreements:	6,751,080	<u>_6,368,926</u>
United States Government securities Corporate bonds and notes Common and preferred stocks International securities Collective trust and mutual funds Temporary investments Mortgage loans Real estate Venture capital	575,893 38,748 191,413 255,983 5,884,775 504,691 448,233 1,191,322 337,121	311,038 16,500 2,105 93,076 4,323,254 193,641 642,265 988,568 231,819
Total investments	<u>9,428,179</u> <u>\$16,179,259</u>	<u>6,802,266</u> <u>\$13,171,192</u>

The System's investments are managed by various fund managers. At December 31, 1995 and 1994 respectively, two external investment advisory firms managed approximately 47.5% and 44% of the System's total investment portfolio assets. Most of these assets consist of collective trusts and mutual funds and are passively managed in nature. The allocations to these two investment advisory firms are fully consistent with the System's Annual Five Year Investment Plan and Statement of Investment Policy. Because the System's assets are invested in a variety of financial instruments, the related values as presented in the financial statements are subject to various market fluctuations which include changes in the equity markets, interest rate environment and the general economic conditions.

The System's investments in real estate are concentrated principally in office, industrial, retail, and residential projects. Approximately \$199,014,000 and \$190,290,000 of the real estate portfolio is estate investments are not concentrated in any one geographic area or industry.

## 5. Investments, continued:

The System participates in a security lending program, whereby certain securities are transferred to an independent broker/dealer in exchange for collateral equal to at least 102% of the market value of securities on loan (reverse repurchase agreements). As the System represents only one of several Commonwealth agencies participating in the security lending program and, as collateral received by the custodial agent in exchange for System securities is not specifically identifiable by agency, the System does not record the receipt of such collateral or the corresponding liability to return collateral via repurchase of securities under loan. Securities under loan, however, are maintained on the System's financial records and have been classified accordingly in the summary of investment risk. The System has minimized its exposure to credit risk due to broker/dealer default by having the custodial agent determine daily that required collateral meets 102% of the market value of securities on loan. The System has not experienced any losses due to credit risk on security lending activity since implementation of the program.

These financial instruments necessarily involve counterparty credit exposure. The policy of the System is to require collateral to the maximum extent possible under normal trading practices. In the event of counterparty default, the System has the right to use the collateral to offset the loss associated with the replacement of the exchange agreements. Specific credit limits have been established for each counterparty and are monitored and adjusted daily. The limits are developed based on the counterparty's creditworthiness, overall industry and other considerations, such as the length and legal structure of the contract, type of collateral advanced, and historical volatility indicators.

The System uses financial instruments including forward exchange contracts to manage market exposure. These instruments are integral to the asset allocation, risk management and control systems of the System's investment management strategies and practices. These strategies include holdings of certain foreign debt and equity securities which amounted to approximately \$2.2 billion and \$1.6 billion at December 31, 1995 and 1994, respectively. As a result of these strategies, the System enters into forward exchange contracts as hedges relating to specific foreign security positions. Those instruments are designed to minimize exposure and reduce risk from foreign exchange rate fluctuations. Gains and losses on forward exchange contracts which hedge foreign securities are recognized as incurred. Such amounts effectively offset gains and losses on the foreign currency assets which are hedged. The System does not enter into forward contracts on a speculative basis.

## 5. Investments, continued:

At December 31, 1995, the System had contracts maturing through March 27, 1996 to purchase or sell foreign currency as follows:

	Buy at <u>Spot Rate</u>	(000's omitted) Sell at Spot Rate	Net (Payable) Receivable
Deutsche Mark French Franc Swedish Kroner Japanese Yen Other	\$23,661 147 4,438 _13,382	\$113,461 52,256 5,704 171,545 115,707	\$(113,461) (28,595) (5,557) (167,107) (102,325)
	<u>\$41,628</u>	<u>\$458,673</u>	<u>\$(417,045)</u>

At December 31, 1994, the System had contracts maturing through April 5, 1995 to purchase or sell foreign currency as follows:

	Buy at <u>Spot Rate</u>	(000's omitted) Sell at Spot Rate	Net (Payable) Receivable
Deutsche Mark French Franc Swedish Kroner Japanese Yen Other	\$13,456 13,511 	\$17,329 27,912 12,935 19,001 12,842	\$ (3,873) (14,401) (12,935) (19,001) (5,400)
	<u>\$34,409</u>	<u>\$90,019</u>	<u>\$(55,610</u> )

There were aggregate unrealized gains of approximately \$3.9 million and \$1.2 million, and aggregate unrealized losses of approximately \$0.6 million and \$1.3 million for these forward contracts at December 31, 1995 and 1994, respectively.

The System's investments, including investments bought, sold, as well as held during the year appreciated (depreciated) in fair value by \$2,761,871,000 and \$(749,290,000) in 1995 and 1994, respectively.

## 5 Investments, continued:

The fair value of individual investments that represent 5% or more of the System's net assets available for benefits are as follows:

	<u>1995</u> (000's om	<u>1994</u> itted)
Wells Fargo Nikko Investment Advisors:*  Equity Index Fund P - 160,197,334 and 131,531,390 units in 1995 and 1994, respectively 70/30 Enhanced U.S. Tactical Asset Allocation Fund -	\$3,456,964	\$2,064,180
44,765,633 and 48,985,876 units in 1995 and 1994, respectively	\$ 875,397	\$ 706,476
Extended Equity Market Fund - 15,304,050 and 16,348,703 units in 1995 and 1994, respectively	\$ 956,246	\$ 764,328

The 70/30 Enhanced U.S. Tactical Asset Allocation Fund is diversified among three collective funds: equity, which is invested primarily in Standard & Poor's 500 Companies; long-term fixed income, which is invested in corporate notes and bonds; and the short-term cash fund, which is invested in money market instruments.

During the year ended December 31, 1995, the System earned \$613,000 of accrued benefits resulting from a commission recapture program. As a result, the System realized savings of approximately \$587,000 on consulting, advisory and other expenditures. At December 31, 1995 and 1994, the System had accumulated \$425,000 and \$399,000, respectively, of benefits which were available to use for future expenditures.

#### 6. Income Taxes:

Management believes the System meets the definition of a Governmental Plan and in the System's communications with the Internal Revenue Service (IRS) has been treated as a qualified plan. Therefore, the System has not requested a determination letter from the IRS relating to the status of the System under the Internal Revenue Code.

## 7. Contingencies:

The System is involved in various lawsuits which, if settled adversely, would not have a material effect on the financial statements in management's opinion. However, the individual cases involve legal issues that, if extended to the entire membership, may result in significant costs to the System. If such an event were to occur, the additional costs would be recovered by the System through adjustments to the employer contribution rate.



<sup>\*</sup> Now known as BZW Barclays.

## 8. New Accounting Pronouncements:

Several new accounting pronouncements were issued which the System will be required to adopt over the next few years as follows: Statement of Governmental Accounting Standards Board (GASB) 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans (effective for the year ending December 31, 1997), GASB 27, Accounting for Pensions by State and Local Governmental Employers (effective for the year ending December 31, 1998), and GASB 28, Accounting and Financial Reporting for Securities Lending Transactions (effective for the year ending December 31, 1996).

GASB 25 establishes a financial reporting framework for defined benefit pension plans that distinguishes between two categories of information: (a) current financial information about plan assets and financial activities and (b) actuarially determined information, from a long-term perspective, about the funded status of the plan and the progress being made in accumulating sufficient assets to pay benefits when due.

GASB 27 establishes standards for the measurement recognition and display of pension expenditures/expense and related liabilities, assets, note disclosures, and required supplementary information in the financial reports of state and local government employers.

GASB 28 establishes accounting and financial reporting standards for securities lending transactions. In these transactions, governmental entities transfer their securities to broker-dealers and other entities for collateral which may be cash or securities and simultaneously agree to return the collateral for the same securities in the future. Securities lending transactions will now be recorded in the balance sheet with the costs of these lending transactions reported as expenditures or expenses.

#### SUPPLEMENTARY INFORMATION

#### COMMONWEALTH OF PENNSYLVANIA STATE EMPLOYES' RETIREMENT SYSTEM

#### TEN-YEAR HISTORICAL TREND INFORMATION

#### Analysis of Funding Progress (in millions of dollars) at December 31, 1995

	(1)	(2)	(3)	(4)	(5)	(6)
						Unfunded (Assets in
				II. C 1-1 (Accete in		Excess of) Pension Benefit Obligation
				Unfunded (Assets in		_
	Net Assets	Pension	Percentage	Excess of) Pension	Annual	as a Percentage of
Fiscal	Available	Benefit	Funded	Benefit Obligation	Covered	Annual Covered Payroll
Year	for Benefits*	Obligation	(1)/(2)	(2)-(1)	Payroll	(4)/(5)
<u>Ital</u>	101 Delictits	Oungation	(1)/(2-)	<u> </u>	<u> </u>	
1986	¢ 7120	\$ 6,984	101.9 %	\$ (136)	\$2,518	(5.4)%
	\$ 7,120			• • •	\$2,663	0.6 %
1987	\$ 7,367	\$ 7,384	99.8 %		,	(2.0)%
19 <b>88</b>	\$ 8,312	\$ 8,257	100.7 %		\$2,779	• •
1989	\$ 9,785	\$ 8,782	111.4 %	\$(1,003)	\$2,998	(33.5)%
1990	\$ 9,886	\$ 9,536	103.7 %		\$3,197	(10.9)%
1991	\$11,940	\$10,465	114.1 %	\$(1,475)	\$3,120	(47.3)%
1992	,		111.7%		\$3,359	(38.9)%
	\$12,453	\$11,146		* ' '	\$3,546	(52.1)%
1993	\$13,701	\$11,854	115.6 %		\$3,714	(4.3)%
1994	\$13,330	\$13,172	101.2 %			(41.9)%
1995	\$16,345	\$14,747	110.8 %	\$(1,598)	\$3,816	(41.9)/0

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded (assets in excess of) pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally the greater this percentage, the stronger the plan. Trends in unfunded (assets in excess of) benefit obligation and annual covered payroll are both the plan. Expressing the unfunded (assets in excess of) pension benefit obligation as a affected by inflation. Expressing the unfunded (assets in excess of) pension benefit obligation as a affected of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, where the System's progress made in accumulating sufficient assets to pay benefits when due. However, there is an unfunded pension benefit obligation the smaller this percentage, the stronger the when assets are in excess of pension benefit obligation the higher the bracketed percentage, the stronger the



<sup>\*</sup> Reflects investment valuation at fair value (Note 2).

#### SUPPLEMENTARY INFORMATION

#### COMMONWEALTH OF PENNSYLVANIA STATE EMPLOYES' RETIREMENT SYSTEM

#### TEN-YEAR HISTORICAL TREND INFORMATION

# Revenues by Source and Expenses by Type (in thousands of dollars) at December 31, 1995

	Reve	enues by Source			Employer Contributions
iscal <u>'ear</u>	Employe Contributions	Employer Contributions*	Investment Income**	Total	as a Percentage of  Annual Covered Payroll
986	\$139,454	\$407,276	\$ 916,323	\$1,463,053	16.2 %
987	\$147,061	\$366,463	\$ 223,382	\$ 736,906	13.8 %
988	\$153,131	\$382,413	\$ 929,778	\$1,465,322	13.8 %
989	\$164,653	\$416,513	\$ 1,464,707	\$2,045,873	13.8 %
990	\$175,422	\$418,655	\$ 114,174	\$ 708,251	13.1 %
991	\$182,611	\$381,347	\$ 2,154,276	\$2,718,234	12.2 %
992	\$187,167	\$319,093	\$ 857,770	\$1,364,030	9.5 %
993	\$190,360	\$304,122	\$ 1,534,370	\$ 2,028,852	8.6 %
994	\$193,204	\$342,927	\$ (94,805)	\$ 441,326	9.2 %
995	\$201,719	\$384,506	\$ 3,322,362	\$3,908,587	10.1 %

<sup>\*</sup> Contributions were made in accordance with actuarially determined contribution requirements.

<sup>\*</sup> Includes net realized and unrealized appreciation (depreciation) in fair value of investments and is net of investment expense.

iscal <u>Cear</u>	Benefit Payments	Refunds of Employe Contributions	Administrative Expenses	Total
986	\$483,603	\$11,338	\$ 4,938	\$499,879
987	\$474,598	\$10,671	\$ 4,811	\$490,080
988	\$504,697	\$10,446	\$ 5,391	\$520,534
989	\$556,324	\$10,777	\$ 6,028	\$573,129
990	\$589,832	\$ 9,693	\$ 7,400	\$606,925
991***	\$645,936	\$ 9,736	\$ 8,380	\$664,052
992***	\$829,533	\$ 9,719	\$11,501	\$850,753
993	\$761,993	\$ 6,804	\$12,527	\$781,324
194	\$788,330	\$ 8,041	\$15,566	\$811,937
195	\$869,896	\$ 9,821	\$14,431	\$894,148

Expenses by Type

<sup>\*</sup> In 1991, 6,700 members elected early retirement resulting in accelerated pension benefits principally in 1992.



