

37TH

annual report

TEACHERS' RETIREMENT SYSTEM

OF THE STATE OF KENTUCKY

1976-77

DECEMBER 1977

BOARD OF TRUSTEES

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PAT N. MILLER
EXECUTIVE SECRETARY

COMMONWEALTH OF KENTUCKY
TEACHERS' RETIREMENT SYSTEM
216 WEST MAIN STREET
FRANKFORT, KENTUCKY
40601

December 26, 1977

Honorable Julian M. Carroll, Governor
Commonwealth of Kentucky
Capitol Building
Frankfort, Kentucky 40601

Dear Governor Carroll:

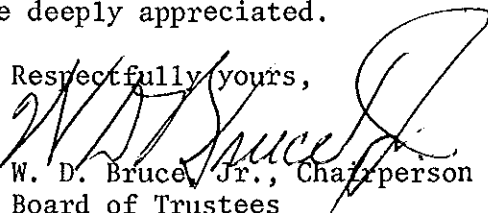
Submitted herewith is the thirty-seventh Annual Report of the Teachers' Retirement System of the State of Kentucky as provided for in KRS 161.320.

Significant gains were realized during the last two years in terms of return on investments, average monthly benefits and capital worth of the System's assets. On July 1, 1977, the average monthly benefit to retirees was \$407 or 2% larger than the July 1975 average payment of \$320. The rate of investment income on July 1, 1977 had increased to 6.64% on an annual basis, up from an annual rate of 6.35% for 1975. The assets of the System totaled \$599,001,756 on July 1, 1977, up 26% from the July 1975 total of \$474,003,924.

The Board of Trustees is committed to providing the maximum benefits possible within the limits of financial ability as indicated by periodic actuarial valuations. Attention should be given to the latest Actuarial Valuation, portions of which are included in this Report.

The assistance and cooperation of the Executive and Legislative branches of State Government are essential to the success of the retirement program. Your continued interest and support will be deeply appreciated.

Respectfully yours,


W. D. Bruce, Jr., Chairperson
Board of Trustees



Pat N. Miller
Executive Secretary

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TEACHERS' RETIREMENT SYSTEM
STATE OF KENTUCKY

BOARD OF TRUSTEES

Elected by members:

Mr. W. D. Bruce, Jr., Chairperson Louisville
Mrs. James Sheehan, Vice-Chairperson Danville
Mrs. Martha Baker Paducah
Mrs. Arlene Romine Mt. Washington
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Mr. T. K. Stone Elizabethtown
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Dr. James B. Graham, Superintendent of Public Instruction Frankfort

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Pat N. Miller, Executive Secretary
Charles L. Bratton, Deputy Executive Secretary
Billy F. Hunt, Deputy Executive Secretary
Huggins & Company, Actuary
The Boston Company of Louisville, Inc., Investment Counselors

FINANCIAL REVIEW

Each year the records of the Teachers' Retirement System are subject to audit by an independent Certified Public Accounting Firm to insure that the accounting records accurately disclose its financial status and to insure the presence of adequate internal control. For the fiscal year ended June 30, 1977, the Charles T. Mitchell Company performed the audit. The resulting "audit opinion" is included herein on page 4. Audited financial statements follow the audit opinion on pages 5 thru 15. Pages 16 and 17 include a Summary of Significant Accounting Policies and Notes to Financial Statements.

During the year ending June 30, 1977, assets of the Teachers' Retirement System increased \$69,061,099 to a total of \$599,001,756. This represents an increase in assets of 13%. It should be noted that of the \$599 million in assets, \$260.4 million is credited to member accounts (Teachers' Savings Fund) and a like amount is reserved in the State Accumulation Fund as state matching for member contributions. This leaves a reserve for benefit payments of \$78.2 million which compares favorably with a reserve of \$67.5 million for the previous fiscal year. Total benefit payments for 1976-77 were \$56.3 million, an increase of \$8.6 million over 1975-76. Total benefit payments for 1977-78 are projected to be \$62.5 million.

The financial tables presented on pages 18, 19 and 20 are prepared by the Teachers' Retirement System. Page 18 provides a comparison of Teacher Contributions and State Matching Contributions since inception and pages 19 and 20 provide a historical analysis of refunds of member contributions.

The financial statements presented in this Report provide a comprehensive review of the financial strength of the Retirement System. The following

statistics, not necessarily financial in nature, are provided to assist in formulating a total picture of the Teachers' Retirement System and its responsibilities.

	<u>At July 1</u>	
	<u>1976</u>	<u>1977</u>
Number of Active Members	47,918	48,452
Average Balance per Active Member	\$ 4,646	\$ 5,374
Number of Service Retirants Receiving Benefits	11,089	11,693
Average Monthly Benefits per Service Retirant	\$ 382	\$ 407
Number of Members Receiving Disability Benefits	669	722
Average Monthly Benefit per Disability Retirant	\$ 320	\$ 346
Number of Survivors Receiving Monthly Benefits	688	715
Average Monthly Benefit per Survivor	\$ 231	\$ 238

CHARLES T. MITCHELL COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
BOX 698
FRANKFORT, KENTUCKY
TELEPHONE 227-7395

CHARLES T. MITCHELL, C.P.A.
DON C. GILES, C.P.A.

MEMBERS
KY. SOC. C.P.A.
AMER. INST. C.P.A.

November 18, 1977

The Board of Trustees
Kentucky Teachers' Retirement System
214 W. Main Street
Frankfort, Kentucky 40601

Gentlemen:

We have examined the balance sheet of the Kentucky Teachers' Retirement System as of June 30, 1977 and 1976 and the related statements of operation and fund balance for the years then ended. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned financial statements present fairly the financial position of the Kentucky Teachers' Retirement System at June 30, 1977 and 1976, and the results of its operations for the years then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding fiscal year.

Respectfully submitted,

Charles T. Mitchell Co.
CHARLES T. MITCHELL COMPANY

KENTUCKY TEACHERS' RETIREMENT SYSTEM
BALANCE SHEET
JUNE 30, 1977 AND 1976

	JUNE 30, 1977	JUNE 30, 1976
<u>ASSETS</u>		
Cash	\$ 3 804 213 35	\$ 5 131 517 00
Investments: (see note below)		
Bonds and notes (approximate quoted market values - \$475,899.485.00 as of June 30, 1977 and \$397,844,527.00 as of June 30, 1976)	487 416 856 82	427 616 127 85
Common and preferred stocks (approximate quoted market values - \$92,932,693.00 as of June 30, 1977 and \$84,304,089.00 as of June 30, 1976)	106 845 022 21	96 580 527 57
Accrued interest purchased	190 144 80	321 647 59
Special reserve account, Aetna Life Insurance Co.	745 519 00	290 837 00
TOTAL ASSETS	\$599 001 756 18	\$529 940 657 01
<u>LIABILITIES AND FUND BALANCES</u>		
LIABILITIES		
Irregular payments - escrow account	\$ 28 770 02	\$ 24 936 86
Treasurers unredeemed checks	6 620 63	10 513 41
Total Liabilities	\$ 35 390 65	\$ 35 450 27
FUND BALANCES		
Teachers' savings fund	\$260 398 542 47	\$231 213 678 75
State accumulation fund	260 398 542 47	231 213 678 75
Allowance reserve fund	37 574 084 73	31 174 672 08
Guarantee fund	22 253 261 11	18 265 254 92
Voluntary contribution fund	2 464 246 16	2 233 799 81
Hospital and medical insurance fund	5 696 565 72	6 374 690 88
Survivor and death benefit fund	10 166 338 16	9 411 214 47
General expense fund	14 784 71	18 217 08
Total Fund Balances	\$598 966 365 53	\$529 905 206 74
TOTAL LIABILITIES AND FUND BALANCES	\$599 001 756 18	\$529 940 657 01

Note: Par values of bonds and notes - \$490,156,644.91 as of June 30, 1977,
and \$431,113,343.79 as of June 30, 1976.

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
 COMBINED STATEMENT OF OPERATIONS AND FUND BALANCE
 FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
Teachers' contributions	\$ 39 616 015 59	\$ 36 486 867 01
State contributions	53 473 965 00	37 509 865 00
Interest and dividends earned on investments	36 637 171 44	31 488 033 02
Cost-of-living appropriation		3 587 500 00
Employers' matching contributions	2 443 306 41	2 238 733 26
General expense fund appropriations	575 735 00	517 535 00
Voluntary contributions	480 299 86	408 818 19
Teachers' reinstatements	265 197 06	371 922 45
Aetna Life Insurance Company - reserve		
Interest income	20 359 00	8 494 00
Experience increase	434 323 00	151 665 42
Gain (loss) on sale of investments	228 075 82	(2 086 081 93)
Forfeitures and adjustments	4 850 93	737 29
Total Revenues	\$134 179 299 11	\$110 684 088 71
<u>EXPENDITURES</u>		
Benefits for service and disability retirements	\$ 53 635 038 59	\$ 41 859 932 50
Refund members' contributions	4 206 122 42	3 447 869 52
Cost-of-living bonus		3 488 926 03
Survivor and death benefits	2 699 568 17	2 383 498 71
Comprehensive medical insurance premiums	3 856 244 36	3 029 902 62
General expense fund expenditures	560 950 29	499 317 92
Investment counsel and processing fee	152 950 52	115 000 00
Irregular payments	7 265 97	54 985 75
Total Expenditures	\$ 65 118 140 32	\$ 54 879 433 05
<u>EXCESS OF REVENUE OVER EXPENDITURES</u>	\$ 69 061 158 79	\$ 55 804 655 66
<u>TOTAL FUND BALANCES</u>		
Beginning of year	529 905 206 74	474 100 551 08
End of year	\$598 966 365 53	\$529 905 206 74

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
TEACHERS' SAVINGS FUND
STATEMENT OF OPERATIONS AND FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
Teachers' contributions	\$ 37 053 602 37	\$ 34 188 076 91
Reinstatements	236 279 08	337 853 38
Irregular payments prior year - escrow	21 504 05	
Transfers from allowance reserve fund:		
Formerly disabled teachers returning to teaching		9 012 35
Transfers from guarantee fund:		
Interest on fund balance	6 511 549 10	5 781 042 54
Transfers from hospital and medical insurance fund:		
To adjust for overpayments by employers	934 09	809 64
To close prior year underpayments by employers		1 099 59
Transfers from survivor and death benefit fund:		
To adjust for overpayments by employers	934 09	809 64
To close prior year underpayments by employers		1 099 59
Forfeitures and adjustments	4 139 61	3 548 21
Total Revenues	\$ 43 828 942 39	\$ 40 323 351 85
<u>EXPENDITURES</u>		
Refunds - regular	3 976 280 41	3 184 277 59
Refunds - special	14 365 44	13 555 96
Irregular payments current year - escrow	28 770 02	23 317 58
Irregular payments prior year - escrow		31 668 17
Transfers to allowance reserve fund:		
Retirements	10 340 247 93	9 677 281 22
Transfers to guarantee fund:		
Forfeitures and adjustments		4 821 63
Transfers to hospital and medical insurance fund:		
To close prior year overpayments by employers	698 18	
Transfers to survivor and death benefit fund:		
Survivors benefits	283 018 51	296 921 43
To close prior year overpayments by employers	698 18	
Total Expenditures	\$ 14 644 078 67	\$ 13 231 843 58
<u>EXCESS OF REVENUES OVER EXPENDITURES</u>	\$ 29 184 863 72	\$ 27 091 508 27
<u>FUND BALANCE</u>		
Beginning of year	231 213 678 75	204 122 170 48
End of Year	\$260 398 542 47	\$231 213 678 75

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
STATE ACCUMULATION FUND
STATEMENT OF OPERATIONS AND FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
State contributions - permanent	\$ 46 012 085 46	\$ 30 508 331 02
State contributions - prior service	4 882 900 00	4 882 900 00
Employers' matching contributions	2 284 650 27	2 093 361 20
Teachers' reinstatement contributions	28 917 98	34 069 07
Expense fund balance - 1976 and 1975	18 217 08	2 771 13
Transfers from allowance reserve fund:		
Formerly disabled teachers returning to teaching		21 044 70
Transfers from guarantee fund:		
Interest on fund balance	6 511 549 10	5 781 042 54
Reinstatements	236 279 08	337 853 38
To close prior year overpayments by employers	20 107 69	
To adjust state contributions to match teachers' contributions		1 543 413 85
Forfeitures and adjustments		1 869 37
Total Revenues	\$ 59 994 706 66	\$ 45 206 656 26
<u>EXPENDITURES</u>		
Transfers to allowance reserve fund:		
Retirements	\$ 10 340 247 93	\$ 9 677 281 22
State contributions - prior service	4 882 900 00	4 882 900 00
Expense fund balance - 1976 and 1975	18 217 08	2 771 13
Benefit improvements (see note 2)	7 881 000 00	
Transfers to guarantee fund:		
To adjust for overpayments by employers	26 901 84	23 317 58
To close prior year underpayments by employers		31 668 17
Refunds	3 989 802 43	3 195 466 83
Forfeitures and adjustments		4 821 63
Benefit improvements (see note 2)	993 740 00	
To adjust state contributions to match teachers' contributions (see note 1)	2 392 769 18	
Transfers to survivor and death benefit fund:		
Survivors' benefits	283 018 51	296 921 43
Forfeitures and adjustments	1 245 97	
Total Expenditures	\$ 30 809 842 94	\$ 18 115 147 99
<u>EXCESS REVENUES OVER EXPENDITURES</u>	\$ 29 184 863 72	\$ 27 091 508 27
<u>FUND BALANCE</u>		
Beginning of year	231 213 678 75	204 122 170 48
End of year	\$260 398 542 47	\$231 213 678 75

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
ALLOWANCE RESERVE FUND
STATEMENT OF OPERATIONS AND FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
Transfers from teachers' savings fund:		
Retirements	\$ 10 340 247 93	\$ 9 677 281 22
Transfers from state accumulation fund:		
Retirements	10 340 247 93	9 677 281 22
State contributions - prior service (see note 3)	4 882 900 00	4 882 900 00
Expense fund balance - 1976 and 1975 (see note 3)	18 217 08	2 771 13
Benefit improvements	7 881 000 00	
Transfers from guarantee fund:		
Interest on fund balance	989 378 37	952 928 08
State deficiency in service obligations for teachers retired (see note 3)	25 464 818 98	17 859 613 80
Transfers from voluntary contribution fund:		
Teachers and employers voluntary contributions	155 180 95	106 946 31
Cost-of-living bonus appropriation		3 587 500 00
Forfeitures and adjustments	3 300 21	
Total Revenues	\$ 60 075 291 45	\$ 46 747 221 76
<u>EXPENDITURES</u>		
Benefits for service and disability retirements	\$ 53 635 038 59	\$ 41 859 932 50
Transfers to teachers' savings fund:		
Formerly disabled teachers returning to teaching		9 012 35
Transfers to state accumulation fund:		
Formerly disabled teachers returning to teaching		21 044 70
Transfers to guarantee fund:		
Over appropriation for cost-of-living bonus		98 573 97
Transfers to survivor and death benefit fund:		
Transfers for payments to survivors of deceased members	40 840 21	30 445 75
Cost-of-living bonus		3 488 926 03
Forfeitures and adjustments		70
Total Expenditures	\$ 53 675 878 80	\$ 45 507 936 00
<u>EXCESS OF REVENUES OVER EXPENDITURES</u>	\$ 6 399 412 65	\$ 1 239 285 76
<u>FUND BALANCE</u>		
Beginning of year	31 174 672 08	29 935 386 32
End of year	\$ 37 574 084 73	\$ 31 174 672 08

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
 GUARANTEE FUND
 STATEMENT OF OPERATIONS AND FUND BALANCE
 FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
REVENUES		
Interest and dividends earned on investments	\$ 36 637 171 44	\$ 31 488 033 02
Transfers from teachers' savings fund:		
To close inactive accounts		4 821 63
Transfers from state accumulation fund:		
To close inactive accounts		4 821 63
Refunds	3 989 802 43	3 195 466 83
To close prior year underpayments by employers		31 668 17
To adjust for overpayments by employers	26 901 84	23 317 58
Benefit improvements (see note 2)	993 740 00	
To adjust state contributions to match teachers' contributions (see note 1)	2.392 769 18	
Transfers from allowance reserve fund:		
To adjust for overmatches by state in accordance with KRS 161.420 (7)		98 573 97
Transfers from hospital and medical insurance fund:		
To adjust for overpayments by employers	934 09	809 64
To close prior year underpayments by employers		1 099 59
To adjust state contributions to match teachers' contributions (see note 1)	87 611 22	
Transfers from survivor and death benefit fund:		
To adjust for overpayments by employers	934 09	809 64
To close prior year underpayments by employers		1 099 59
To adjust state contributions to match teachers' contributions (see note 1)	87 611 24	
Gain (loss) on sale of investments	228 075 82	(2 086 081 93)
Total Revenues	<u>\$ 44 445 551 35</u>	<u>\$ 32 764 439 36</u>
EXPENDITURES		
Investment counsel and processing fees	\$ 152 950 52	\$ 115 000 00
Transfers to teachers' savings fund:		
Interest on fund balance	6 511 549 10	5 781 042 54
Transfers to state accumulation fund:		
Interest on fund balance	6 511 549 10	5 781 042 54
Reinstatements	236 279 08	337 853 38
To close prior year overpayments by employers	20 107 69	
To adjust state contributions to match teachers' contributions		1 543 413 85
Transfers to allowance reserve fund:		
Interest on fund balance	989 378 37	952 928 08
State deficiency in service obligations for teachers' retired (see note 3)	25 464 818 98	17 859 613 80
Transfers to voluntary contribution fund:		
Interest on fund balance	120 804 01	112 267 85

KENTUCKY TEACHERS' RETIREMENT SYSTEM
 GUARANTEE FUND
 STATEMENT OF OPERATIONS AND FUND BALANCE (CONTINUED)
 FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>EXPENDITURES (CONTINUED)</u>		
Transfers to hospital and medical insurance fund:		
Interest on fund balance	\$ 162 166 78	\$ 184 212 98
To close prior year overpayments by employers	698 18	
To adjust state contributions to match teachers' contributions		17 392 03
Transfers to survivor and death benefit fund:		
Interest on fund balance	286 544 21	257 949 73
To close prior year overpayments by employers	698 18	
To adjust state contributions to match teachers' contributions		17 392 03
Forfeitures and adjustments	96	3 080 47
Total Expenditures	<u>\$ 40 457 545 16</u>	<u>\$ 32 963 189 28</u>
<u>EXCESS (DEFICIT) REVENUES OVER EXPENDITURES</u>	<u>\$ 3 988 006 19</u>	<u>\$ (198 749 92)</u>
<u>FUND BALANCE</u>		
Beginning of year	18 265 254 92	18 464 004 84
End of year	\$ 22 253 261 11	\$ 18 265 254 92

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
VOLUNTARY CONTRIBUTION FUND
STATEMENT OF OPERATIONS AND FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
Voluntary contributions	\$ 480 299 86	\$ 408 818 19
Transfers from guarantee fund:		
Interest on members accounts	120 804 01	112 267 85
Forfeitures and adjustments		94
Total Revenues	\$ 601 103 87	\$ 521 086 98
<u>EXPENDITURES</u>		
Refunds - teachers' voluntary contributions and employers' voluntary contributions	\$ 215 476 57	\$ 250 035 97
Transfers to allowance reserve fund:		
Voluntary contributions used in determining retirement benefits	155 180 95	106 946 31
Total Expenditures	\$ 370 657 52	\$ 356 982 28
<u>EXCESS OF REVENUES OVER EXPENDITURES</u>	\$ 230 446 35	\$ 164 104 70
<u>FUND BALANCE</u>		
Beginning of year	2 233 799 81	2 069 695 11
End of year	\$ 2 464 246 16	\$ 2 233 799 81

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
HOSPITAL AND MEDICAL INSURANCE FUND
STATEMENT OF OPERATIONS AND FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
Teachers' contributions	\$ 1 281 206 61	\$ 1 149 395 05
Employer matching contributions	79 328 06	72 686 03
State matching contributions	1 289 489 77	1 059 316 99
Transfers from teachers' savings fund:		
To close prior year overpayment by employers	698 18	
Transfers from guarantee fund:		
Interest on fund balance	162 166 78	184 212 98
To close prior year overpayment by employers	698 18	
Transfer to comply with KRS 161.420 (7) and KRS 161.550		17 392 03
Aetna Life Insurance Company		
Interest income	20 359 00	8 494 00
Experience increase (deficit)	434 323 00	151 665 42
Total Revenues	\$ 3 268 269 58	\$ 2 643 162 50
<u>EXPENDITURES</u>		
Comprehensive medical insurance premiums	\$ 3 856 244 36	\$ 3 029 902 62
Transfers to teachers' savings fund:		
To adjust for overpayment by employers	934 09	809 64
To close prior year underpayment by employers		1 099 59
Transfers to guarantee fund:		
To adjust for overpayment by employers	934 09	809 64
To close prior year underpayment by employers		1 099 59
Transfer to comply with KRS 161.420 (7) and KRS 161.550 (see note 1)	87 611 22	
Forfeitures and adjustments	670 98	800 03
Total Expenditures	\$ 3 946 394 74	\$ 3 034 521 11
<u>EXCESS (DEFICIT) REVENUES OVER EXPENDITURES</u>	\$ (678 125 16)	\$ (391 358 61)
<u>FUND BALANCE</u>		
Beginning of year	6 374 690 88	6 766 049 49
End of year	\$ 5 696 565 72	\$ 6 374 690 88

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
SURVIVOR AND DEATH BENEFIT FUND
STATEMENT OF OPERATIONS AND FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>REVENUES</u>		
Teachers' contributions	\$ 1 281 206 61	\$ 1 149 395 05
Employer matching contributions	79 328 08	72 686 03
State matching contributions	1 289 489 77	1 059 316 99
Transfers from teachers' savings fund:		
Survivor payments	283 018 51	296 921 43
To close prior year overpayments by employers	698 18	
Transfers from state accumulation fund:		
Survivor payments	283 018 51	296 921 43
Transfers from allowance reserve fund:		
Transfers for payments to survivors of deceased members	40 840 21	30 445 75
Transfers from guarantee fund:		
Interest on fund balance	286 544 21	257 949 73
To close prior year overpayment by employers	698 18	
Transfer to comply with KRS 161.420 (7) and KRS 161.550		17 392 03
Total Revenues	<u>\$ 3 544 842 26</u>	<u>\$ 3 181 028 44</u>
<u>EXPENDITURES</u>		
Survivor and death benefit payments	\$ 2 699 568 17	\$ 2 383 498 71
Transfers to teachers' savings fund:		
To adjust for overpayments by employers	934 09	809 64
To close prior year underpayment by employers		1 099 59
Transfers to guarantee fund:		
To adjust for overpayments by employers	934 09	809 64
To close prior year underpayment by employers		1 099 59
Transfer to comply with KRS 161.420 (7) and KRS 161.550 (see note 1)	87 611 24	
Forfeitures and adjustments	670 98	800 03
Total Expenditures	<u>\$ 2 789 718 57</u>	<u>\$ 2 388 117 20</u>
<u>EXCESS OF REVENUES OVER EXPENDITURES</u>	\$ 755 123 69	\$ 792 911 24
<u>FUND BALANCE</u>		
Beginning of year	<u>9 411 214 47</u>	<u>8 618 303 23</u>
End of year	\$10 166 338 16	\$ 9 411 214 47

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
 GENERAL EXPENSE FUND
 STATEMENT OF OPERATIONS
 FOR THE YEARS ENDED JUNE 30, 1977 AND 1976

	YEAR ENDED JUNE 30,	
	1977	1976
<u>ALLOTMENTS</u>		
Regular legislative appropriations	\$ 575 735 00	\$ 517 535 00
<u>EXPENDITURES</u>		
Personal services		
Salaries	\$ 368 020 07	\$ 312 162 20
Contracted professional and consulting services	48 946 15	30 477 42
Current operating expenses		
Life insurance - employees	571 63	475 11
Postage, freight, and express	33 605 00	53 059 86
Telephone and telegraph	7 802 35	5 964 60
Travel-in state	7 959 66	8 060 88
Travel - out of state	2 886 70	2 133 83
Printing	9 830 96	4 155 38
Maintenance of equipment	3 305 72	2 156 41
Maintenance of building	231 00	1 286 67
Office supplies	7 961 72	6 386 34
Messenger vehicle	13 12	780 90
Carpool rentals	1 463 03	
Rental of building	26 215 59	18 029 00
Rental of equipment	32 097 37	28 829 49
Insurance	1 222 36	1 342 31
Fidelity bonds	35 00	35 00
Dues and subscriptions	1 922 92	1 277 08
Miscellaneous	626 79	2 400 65
Capital outlay		
Office furniture, fixtures and equipment	6 233 15	20 304 79
Total Expenditures	\$ 560 950 29	\$ 499 317 92
Ending balance lapsed to Allowance Reserve Fund	\$ 14 784 71	\$ 18 217 08

The accompanying notes are an integral part of these statements.

KENTUCKY TEACHERS' RETIREMENT SYSTEM
SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES
JUNE 30, 1977

- A. Assets, liabilities, and fund balances, and revenues and expenditures are recognized in accordance with the governmental accounting policies of the Commonwealth of Kentucky.
- B. Bonds and notes are stated at maturity value net of unamortized premiums and discounts. Stocks are stated at cost. Realized gains or losses on all securities are recorded at the time of sale.
- C. Premiums and discounts are amortized using the straight line method over the period the bonds and notes are to be held. Any unamortized premium or discount is recognized at the time of sale for bonds or notes sold prior to maturity.
- D. Fixed assets are expensed when purchased in accordance with the governmental accounting policies of the Commonwealth of Kentucky.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 1977

1. ANNUAL YEAR END ADJUSTMENTS

State appropriations to match teachers' contributions to the Teachers' Savings Fund, the Hospital and Medical Insurance Fund, and the Survivor and Death Benefit Fund exceeded those contributions by \$2,567,991.64. In accordance with KRS 161.420 (7), the excess appropriation was transferred to the Guarantee Fund. It consisted of transfers from the State Accumulation Fund - \$2,392,769.18, the Hospital and Medical Insurance Fund - \$87,611.22, and the Survivor and Death Benefit Fund - \$87,611.24.

2. PAST SERVICE LIABILITY

The amount necessary to be appropriated to this System by the General Assembly to fund the unfunded past service in future periods is not included as an asset, nor is the liability for past service included in these statements.

Actuarial reports are required biannually, with the most current report made as of July 1, 1976. At that time the System's consulting actuary determined the unfunded past service liability to be approximately \$799,279,900.00 detailed as follows:

	JULY 1, 1976	JULY 1, 1974
Prior service obligation	\$ 50 007 571 00	\$ 57 476 380 00
Service subsequent to July 1, 1941	749 272 329 00	385 080 311 00
Total unfunded past service liability	\$799 279 900 00	\$442 556 691 00

KENTUCKY TEACHERS' RETIREMENT SYSTEM
 NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
 FOR THE YEAR ENDED JUNE 30, 1977

2. PAST SERVICE LIABILITY (CONT)

In accordance with KRS 161.550 "the state shall contribute annually to the retirement system a permanent amount equal to that contributed by all members. The state shall, in addition to the above amount, contribute annually an amount sufficient to discharge the prior service and other unfunded obligations with interest assumed by the state, over a period not greater than thirty years."

At June 30, 1977 participating members contributed to the System at the rate of 7.7% of creditable compensation with state appropriations contributed at the rate of 10.5% of creditable compensation. The additional 2.8% state contribution is summarized below:

Transferred to allowance reserve fund	
Amortization of prior service obligation	\$ 4 882 900 00
Benefit improvements	7 881 000 00
Transferred to guarantee fund	
Benefit improvements	993 740 00
Total additional 3% state contribution 1976-77	\$ 13 757 640 00

3. RETIREMENT ALLOWANCE PROVISIONS

Retirement allowances paid, first reduce the member's contributions, until they are exhausted, then the state matching contributions are used to cover the allowances. When both the member's contributions and the state matching contributions are exhausted, the retirement allowance is paid from investment earnings and funds available through actuarial provisions. For the year June 30, 1977, \$31,355,314.43 was paid in excess of teachers' contributions and state matching contributions. This amount is comprised of: (1) transfers from the State Accumulation Fund: state contributions - prior service - \$4,882,900.00; and the 1975-76 General Expense Fund Balance - \$18,217.08 and (2) transfers from the Guarantee Fund: \$25,464,818.98, and interest on fund balance - \$989,378.37.

COMPARISON OF TEACHERS' SAVINGS AND MATCHING FUNDS
 Teachers' Retirement System
 for the period July 1, 1940 through June 30, 1977

Date	Teachers' Savings	Federal Matching Contributions	State Matching Contributions	State Prior Service Contributions	State Cont. For Benefit Improvements	State Contribution For Expenses
7/1/40-6/30/44	\$ 2,063,716.64	\$	\$ 2,063,636.92	\$ 147,146.21	\$	\$ 89,216.87
7/1/44-6/30/48	3,184,177.52		3,039,017.44	363,594.56		131,388.00
7/1/48-6/30/52	4,951,457.55		5,090,847.83	3,374,273.81		198,335.00
7/1/52-6/30/56	7,267,163.31		6,494,101.79	936,448.21		262,254.00
1956-57	3,397,252.11		3,396,749.24	611,125.76		89,000.00
1957-58	3,523,727.93		3,523,551.57	612,278.43		125,225.00
1958-59	3,863,489.84		3,858,543.67	479,306.33		129,350.00
1959-60	4,186,490.96		4,184,427.58	281,225.77		178,146.65
1960-61	5,792,722.05		5,790,585.89	1,173,039.11		161,375.00
1961-62	6,311,472.35		6,309,696.04	1,119,118.96		171,185.00
1962-63	6,765,354.48		6,763,615.18	950,175.82		196,846.00
1963-64	7,076,348.40		7,074,866.28	696,608.72		220,657.00
1964-65	7,780,975.02		7,780,017.37	400,782.63		219,200.00
1965-66	11,839,447.87	147,969.24	10,744,110.00			255,890.00
1966-67	14,163,257.71	942,771.10	12,621,567.00			237,063.00
1967-68	16,173,617.90	951,273.29	14,172,000.00			225,000.00
1968-69	18,080,829.17	1,301,561.26	18,475,036.94	424,963.06		266,760.00
1969-70	19,774,253.40	1,355,704.89	16,913,000.00			274,910.00
1970-71	22,005,053.79	1,653,942.27	22,513,528.00			364,742.00
1971-72	23,062,733.07	1,733,656.39	22,190,386.00			342,675.00
1972-73	24,885,851.66	1,852,868.65	24,006,510.57	750,000.00	1,004,289.43	373,100.00
1973-74	27,003,178.52	1,775,589.01	25,310,271.03	2,405,000.00	1,219,358.97	420,000.00
1974-75	31,973,452.50	2,152,024.72	29,721,938.46	7,267,400.00	2,974,061.54	455,300.00
1975-76	36,486,867.01	2,238,733.26	32,626,965.00	4,882,900.00	3,587,500.00	517,535.00
1976-77	39,616,015.59	2,443,306.41	39,716,325.00	4,882,900.00	8,874,740.00	575,735.00
TOTALS	\$ 351,228,906.35	\$ 18,549,400.49	\$334,381,294.80	\$ 31,758,287.38	\$ 17,659,949.94	\$ 6,480,888.52

RECAPITULATION

State permanent contributions to match teacher payments	334,381,294.80
Federal Matching through remittances by employers	18,549,400.49
Total matching under the statutory requirement for 100% matching of teachers payments	352,930,695.29
Teacher payments made thru June 30, 1977	<u>351,228,906.35</u>
State surplus in matching contributions as of June 30, 1977	<u>1,701,788.94</u>

REGULAR REFUNDS
Teachers' Retirement System
July 1, 1940 to June 30, 1977

Date	Withdrawals		Deaths		Adjustments		TOTAL	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
7/1/40-6/30/44	2,654	\$ 106,474.07	148	\$ 11,447.66	21	\$ 231.76	2,823	\$ 118,153.49
7/1/44-6/30/48	6,455	415,929.56	205	34,386.65	52	1,184.73	6,712	451,500.94
7/1/48-6/30/52	9,079	816,505.87	267	89,957.65	71	1,443.47	9,417	907,906.99
7/1/52-6/30/56	9,488	1,204,087.67	237	147,531.23	39	727.79	9,764	1,352,346.69
7/1/56-6/30/60	8,810	1,835,748.41	255	287,341.43	285	7,678.97	9,350	2,130,768.81
1960-61	1,672	517,682.44	53	79,564.69	52	2,145.72	1,777	599,392.85
1961-62	2,170	724,240.16	69	113,975.25	42	1,769.95	2,281	839,985.36
1962-63	2,106	826,457.63	66	115,303.28	48	1,718.89	2,220	943,479.80
1963-64	2,310	1,035,242.10	60	144,154.22	26	1,460.21	2,396	1,180,856.53
1964-65	2,380	1,190,715.07	72	156,186.68	39	1,930.17	2,491	1,348,831.92
1965-66	2,417	1,375,728.50	44	90,196.91	23	1,256.68	2,484	1,467,182.09
1966-67	2,512	1,500,846.42	49	143,133.98	29	2,420.61	2,590	1,646,401.01
1967-68	2,766	1,858,115.15	48	138,362.23	16	975.68	2,830	1,997,453.06
1968-69	3,081	2,204,896.23	48	152,415.64	90	2,264.79	3,219	2,359,576.66
1969-70	3,447	2,651,430.47	53	200,204.03	48	8,097.76	3,548	2,859,732.26
1970-71	3,808	3,241,516.61	56	188,158.04	40	6,701.36	3,904	3,436,376.01
1971-72	3,011	2,812,762.92	36	131,650.80	40	5,953.59	3,087	2,950,367.31
1972-73	4,048	3,485,841.89	59	197,514.29	24	1,366.87	4,131	3,684,723.05
1973-74	2,956	3,245,099.68	51	173,900.70	13	4,833.36	3,020	3,423,833.74
1974-75	2,822	3,756,969.63	43	205,715.67	16	1,418.87	2,881	3,964,104.17
1975-76	2,242	2,992,768.00	31	178,866.66	68	12,642.93	2,341	3,184,277.59
1976-77	2,244	3,842,134.30	20	133,708.85	8	437.26	2,272	3,976,280.41
TOTALS	82,478	\$41,641,192.78	1,970	\$3,113,676.54	1,090	\$68,661.42	85,538	\$44,823,530.74

ANALYSIS OF ACCOUNTS REFUNDED 1976-77
Teachers' Retirement System of the State of Kentucky

<u>REASON FOR WITHDRAWAL</u>	<u>MALES</u>	<u>FEMALES</u>	<u>TOTAL</u>	<u>AMOUNT</u>
Other Teaching Employment:				
State of Ohio	19	39	58	66,988.15
State of Florida	18	23	41	94,197.32
State of Indiana	13	39	52	74,456.33
Other States	99	222	321	480,030.31
Outside Limits of USA	5	16	21	36,319.94
Kentucky Schools not covered by Teachers' Retirement System	17	28	45	81,918.91
Non-Teaching Employment:				
Entered Business or Industry	314	132	446	998,146.32
Church-Related Profession	9	4	13	15,819.00
Medical Profession	0	2	2	4,041.86
Further Training & Education	44	75	119	162,162.17
Local, State or Federal Government	14	11	25	58,782.42
Homemaking, Family Duties, Children	4	340	344	611,497.08
Spouse Transferred Within Kentucky	0	27	27	36,680.71
Spouse Transferred Out of Kentucky	2	219	221	360,517.49
Moved Residence to Another State	18	44	62	110,216.54
Emergency Teacher, Not Re-employed	53	99	152	168,086.05
Salary Too Low	13	0	13	20,384.72
Needed the Money	9	21	30	58,197.90
Disliked Teaching	7	9	16	27,557.25
Personal Reasons	80	87	167	320,052.52
Illness of Member	7	22	29	37,676.77
Death of Member	6	14	20	133,708.85
Lost Service Credit, Absent 7 or more Yrs.	5	35	40	18,404.54
Adjustments	<u>0</u>	<u>8</u>	<u>8</u>	<u>437.26</u>
Sub-Total	756	1,516	2,272	3,976,280.41
Refunds from Voluntary Savings	39	17	56	215,476.57
Not Eligible for Membership	<u>24</u>	<u>34</u>	<u>58</u>	<u>14,365.44</u>
Grand Total	<u>819</u>	<u>1,567</u>	<u>2,386</u>	<u>4,206,122.42</u>

INVESTMENTS REVIEW

The Board of Trustees of the Teachers' Retirement System annually appoints an Investment Committee consisting of two board members and the Executive Secretary. This committee acts for the board in all matters of investment subject to the approval of the Board of Trustees. In conformance with the Kentucky Revised Statutes, the Board of Trustees has established a detailed policy governing investment procedures. The "Investment Objectives" of the board which are detailed in the policy document are as follows:

1. Investments of the funds of the Teachers' Retirement System of the State of Kentucky shall be made solely in the interest of its members and their beneficiaries and for the exclusive purpose of providing benefits to such members and their beneficiaries and for the payment of reasonable expenses of administering the Plan and its Trust Funds.
2. The specific objective of the investment program shall be the investment of the fund's assets in securities which shall provide a reasonable rate of total return with major emphasis being placed upon the protection of the assets so invested. Current income together with prospects for capital appreciation shall be weighed in terms of long term needs to provide benefits to members and their beneficiaries. Short term fluctuations in the market value of the fund's assets shall be considered as secondary to long term objectives in terms of the needs of the System.

The "Investment Policy", which is subject to change as economic conditions warrant, is available to interested persons.

KRS 161.340 also requires the board to employ an "experienced competent investment counselor to advise it on all matters pertaining to investment". Presently the Boston Company of Louisville serves in this capacity subject to an annual contract. Page 23 of this Report contains a letter from this company summarizing the current status of the investment portfolio.

Page 24 of this Report provides a historical review of the "Total of Invested Assets" and "Fixed Dollar Net Yield" since 1959. Page 25 provides a summary "Analysis of Investments Held June 30, 1977". Pages 26 thru 34 provide a detail listing of the securities held as of June 30, 1977. Average yield on fixed dollar assets as of June 30, 1977 was 7.19%. The indicated dividend yield on common stock was 4.08% per year. The stated yield on fixed dollar assets is based on par value and the yield on common stock is based on actual cost. The combined annual yield for both fixed income assets and common stock is 6.64% per annum.

In summary, the par value of investments increased \$69.3 million during fiscal 1977 to a total of \$597 million while interest and dividend income increased \$5.1 million to a total of \$36.6 million for the year.

THE BOSTON COMPANY

OF LOUISVILLE, INC.

September 19, 1977

Board of Trustees
Teachers' Retirement System
216 West Main Street
Frankfort, Kentucky 40601

Ladies and Gentlemen:

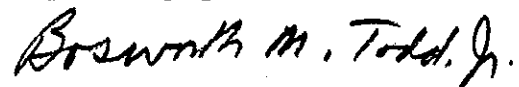
As investment advisor to the Board for the past six years we are confident that the funds of the Kentucky Teachers' Retirement System have been invested in a prudent manner solely for the benefit of the participants and beneficiaries of the Retirement Funds, and in accordance with State Statutes and Board policy.

As of June 30, 1977 the combined portfolio of securities, at book, consisted of about 40% invested in short term securities and U.S. Government Guaranteed obligations, 32% in Corporate Bonds, 18% in Common Stocks, and 10% in Mortgages. In accordance with investment policy established by the Board of Trustees the bonds and notes are rated A or better by major rating services. The bond portfolio has an intermediate maturity of 15 years rather than long maturity to somewhat insulate these assets from the impact of above average inflation and reduce the risk and volatility in these assets.

The common stocks held in the fund are selected with the objective of long-term participation in the growth sectors of our economy and these companies generally represent larger, well capitablized firms with experienced and proven management.

In summary, the participants and beneficiaries of the Retirement Fund can be assured that these assets, which are being held in trust for future benefit payments, are being invested in a prudent manner in keeping with the fiduciary responsibility vested in the Board of Trustees.

Very truly yours,



Bosworth M. Todd, Jr.
President

BMT:hbk

3160 FIRST NATIONAL TOWER, LOUISVILLE, KENTUCKY 40202 502-585-3121

SUMMARY OF INVESTMENT TOTALS AND YIELDS
ON FIXED DOLLAR ASSETS

<u>Year</u>	<u>Total of Invested Assets</u>	<u>Fixed Dollar Net Yield</u>
1959	\$ 57,572,000	3.39
1960	64,655,000	3.53
1961	78,017,000	3.81
1962	90,712,000	4.03
1963	102,938,000	4.17
1964	118,466,000	4.27
1965	132,805,000	4.43
1966	152,609,000	4.58
1967	174,612,000	4.69
1968	200,836,000	5.06
1969	235,898,000	5.32
1970	267,514,029	5.59
1971	295,882,441	6.08
1972	332,807,632	6.34
1973	378,403,868	6.55
1974	420,247,366	7.00
1975	474,003,925	7.13
1976	527,693,871	7.34
1977	597,001,667	7.19

ANALYSIS OF INVESTMENTS HELD JUNE 30, 1977
to show annual yield rate
Teachers' Retirement System of the State of Kentucky

	<u>Percentage of Total</u>	<u>Par Value</u>	<u>Net Annual Interest/Indicated Dividend Income</u>	<u>Net Annual Yield</u>
Short Term Investments	2.35%	\$ 14,000,000.00	\$ 729,000.00	5.207%
U. S. Government Obligations:				
Treasury Bonds & Notes	2.51%	15,000,000.00	1,053,912.12	7.026%
Federal Agencies	20.74%	123,798,465.88	8,947,804.30	7.228%
Title XI Ship Bonds	5.26%	31,409,327.05	2,397,634.55	7.634%
GNMA Single Family	8.50%	50,759,986.65	3,987,417.23	7.855%
Other - Miscellaneous	.17%	1,038,432.99	81,314.29	7.831%
	<u>37.18%</u>	<u>222,006,212.57</u>	<u>16,468,082.49</u>	<u>7.418%</u>
Corporate Bonds:				
Industrial	11.72%	69,975,994.61	5,521,669.43	7.891%
Utilities	11.11%	66,326,000.00	4,736,168.86	7.141%
Finance	6.88%	41,059,704.84	2,849,784.39	6.941%
Railroad	2.51%	15,020,999.28	920,639.69	6.129%
	<u>32.22%</u>	<u>192,382,698.73</u>	<u>14,028,262.37</u>	<u>7.292%</u>
U. S. Government Guaranteed Mortgages:				
FHA & VA Single Family	6.57%	39,204,015.95	2,471,023.76	6.303%
Project Mortgages	3.14%	18,747,050.87	1,357,041.89	7.239%
	<u>9.71%</u>	<u>57,951,066.82</u>	<u>3,828,065.65</u>	<u>6.606%</u>
Other Fixed Income Investments	.64%	3,816,666.79	200,511.41	5.254%
Sub-Total	<u>82.10%</u>	<u>\$490,156,644.91</u>	<u>\$35,253,921.92</u>	<u>7.192%</u>
Common Stocks - 2,225,617 Shares	<u>17.90%</u>	<u>106,845,022.21</u>	<u>4,363,524.20</u>	<u>4.084%</u>
TOTAL INVESTMENTS, INCOME AND YIELD	<u>100.00%</u>	<u>\$597,001,667.12</u>	<u>\$39,617,446.12</u>	<u>6.636%</u>

SHORT TERM INVESTMENTS

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>CDs & Repurchase Agreements:</u>			
Certificate of Deposit	5.300%	7/77	2,000,000.00
Certificate of Deposit	5.300%	7/77	1,000,000.00
Repurchase Agreement	5.150%	7/77	4,000,000.00
Repurchase Agreement	5.200%	7/77	5,000,000.00
Repurchase Agreement	5.200%	7/77	2,000,000.00
Total Short Term Investments			14,000,000.00

U. S. GOVERNMENT OBLIGATIONS

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Treasury Bonds & Notes:</u>			
U. S. Treasury Notes	7.000%	11/81	12,000,000.00
U. S. Treasury Notes	7.875%	5/86	3,000,000.00
			15,000,000.00
 <u>Federal Agencies:</u>			
Banks for Cooperatives	7.750%	1/86	14,000,000.00
Farmers Home Insured Notes - FHA	7.500%	5/88	1,498,465.88
Federal Home Loan Bank	7.650%	5/87	12,000,000.00
Federal Home Loan Bank	7.850%	8/84	20,000,000.00
Federal Home Loan Bank	8.100%	11/85	10,000,000.00
Federal Home Loan Bank	8.625%	2/82	2,500,000.00
Federal Intermediate Credit Banks	6.950%	1/87	10,000,000.00
Federal Intermediate Credit Banks	7.950%	4/86	15,000,000.00
Federal Land Bank	7.850%	1/88	10,000,000.00
Federal Land Bank	7.950%	10/85	14,000,000.00
Federal Land Bank	8.100%	7/85	9,800,000.00
Federal Land Bank	8.150%	4/82	2,000,000.00
Federal Land Bank	8.800%	10/85	1,000,000.00
Tennessee Valley Auth. Pr. Ser. B	7.350%	5/97	2,000,000.00
			123,798,465.88

U. S. GOVERNMENT OBLIGATIONS (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Title XI Ship Bonds:</u>			
American Export Isbrandtsen	7.300%	7/97	1,842,000.00
Atlas Marine American Heritage	7.700%	12/96	3,000,000.00
Crowley Maritime	8.125%	9/99	4,987,170.38
Diamond M Drilling New Era	7.750%	9/89	4,445,156.70
Flowers Transportation SF	8.400%	5/00	2,000,000.00
Marine Ship Leasing Ser. A - Antarctic	7.875%	9/95	1,096,296.28
Marine Vessel Leasing Indian Ocean	7.875%	10/95	903,703.69
Polk Tanker Sea Train	8.000%	5/95	3,439,000.00
Wabash Transportation	5.400%	6/89	4,696,000.00
Zapata Marine U. S. Inc. SF	7.700%	9/94	5,000,000.00
			<u>31,409,327.05</u>
 <u>GNMA Single Family:</u>			
Pool 10700	8.250%	6/06	1,000,152.41
Pool 13400	7.500%	1/07	996,444.05
Pool 13512	7.500%	1/07	1,993,127.28
Pool 14282	7.500%	1/07	1,987,823.04
Pool 14356	7.500%	1/07	996,483.98
Pool 14563	7.500%	1/07	1,005,854.44
Pool 14705	7.500%	2/07	1,994,192.92
Pool 14832	7.500%	4/07	1,998,603.44
Pool 14864	7.500%	2/07	997,927.81
Pool 14890	7.500%	2/07	1,097,660.05
Pool 14958	7.500%	2/07	1,000,599.05
Pool 15033	7.500%	2/07	1,021,258.26
Pool 15094	7.500%	1/07	997,169.01
Pool 15182	7.500%	1/07	1,008,325.82
Pool 15242	7.500%	2/07	1,009,276.48
Pool 15293	7.500%	1/07	2,161,363.15
Pool 15374	7.500%	2/07	978,630.56
Pool 15397	7.500%	7/07	996,535.38
Pool 15510	7.500%	2/07	959,028.55
Pool 15539	7.500%	3/07	1,021,440.95
Pool 15682	7.500%	2/07	1,019,871.31
Pool 15703	7.500%	3/07	1,995,858.68
Pool 15704	7.500%	4/07	499,628.14
Pool 15738	7.500%	3/07	999,729.80
Pool 15772	7.500%	2/07	997,837.04
Pool 15814	7.500%	6/07	1,004,620.65
Pool 15891	7.500%	4/07	2,004,745.20
Pool 15924	7.500%	2/07	1,995,614.54
Pool 15943	7.500%	3/07	1,995,492.22
Pool 16032	7.500%	5/07	1,000,000.00
Pool 16192	7.500%	4/07	1,001,070.86
Pool 16547	7.500%	4/07	2,002,715.78
Pool 16837	7.500%	4/07	1,000,000.00
Pool 16844	7.500%	4/07	2,997,927.93
Pool 16943	7.500%	5/07	1,018,541.54
Pool 17030	7.500%	4/07	2,004,436.33
Pool 17194	7.500%	4/07	2,000,000.00
			<u>50,759,986.65</u>

U. S. GOVERNMENT OBLIGATIONS (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Other - Miscellaneous:</u>			
Chic Estrn Ill RR ICC Guarntd Notes	5.000%	3/78	21,830.38
Missouri Kansas Texas RR Notes	9.250%	12/87	550,000.00
Student Loans HEW Pleasureville Bk	7.000%		210,660.77
Student Loans HEW Pleasureville Bk	7.750%		115,138.06
FHA Gen Insurance Fund Deb Ser MM	4.375%	3/90	103,400.00
FHA Certificate of Claim	3.000%		4,516.76
FHA Certificate of Claim	3.000%		32,887.02
			<u>1,038,432.99</u>

Total U. S. Government Obligations

222,006,212.57

CORPORATE BONDS

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Industrials:</u>			
Allied Chemical Corp Notes	8.375%	4/83	4,000,000.00
Allis Chalmers Mfg S F Deb	4.850%	5/90	750,000.00
Aluminum Co America S F Deb	9.450%	5/00	1,250,000.00
American Metal Climax S F Deb	8.500%	3/96	1,300,000.00
Arch Coal and Eads Coal Notes	9.750%	6/86	580,000.00
Ariel Properties Inc Mortgage Note	7.000%	7/98	535,000.00
Armco Steel Deb	9.200%	7/00	1,300,000.00
Chevron London 1st Prfd Ship Mtg	7.700%	9/97	1,000,000.00
Chevron Stations Inc Note	5.100%	4/91	174,000.00
Countrywide Stations Secrd Notes C	7.500%	9/02	3,806,000.00
Cummins Engine Co Inc Notes	4.600%	7/90	210,000.00
Dow Chemical Deb	8.875%	5/00	2,219,000.00
Dow Chemical Notes	5.000%	4/91	986,400.00
Dresser Industries Inc Notes	8.650%	5/85	4,250,000.00
Dresser Industries S F Deb	9.375%	5/00	1,750,000.00
Exxon Transportation Guarntd Notes	7.400%	7/02	2,500,000.00
Fahrney Paul L 1st Prfd Ship Mtg	7.700%	9/97	1,000,000.00
I P Petroleum Gtd Notes	8.500%	2/82	1,821,210.00
Ingersoll-Rand Notes	8.750%	5/85	4,000,000.00
Inland Steel 1st Mtg Ser O	8.750%	7/95	1,600,000.00
Leased Tankers Secured Notes A	7.450%	12/92	4,000,000.00
Liggett Myers S F Deb	8.625%	4/01	2,000,000.00
North American Rockwell S F Deb	8.300%	4/96	1,200,000.00
Packaging Corp America S F Deb	4.375%	10/87	540,000.00
Packaging Corp America S F Deb	6.850%	8/93	600,000.00
Penney J C S F Deb	8.875%	7/95	600,000.00

CORPORATE BONDS (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Industrials: (Continued)</u>			
Philip Morris Inc Notes	8.500%	3/85	4,000,000.00
Pitney Bowes Inc S F Deb	9.000%	10/95	600,000.00
Quaker Oats S F Deb	7.700%	6/01	2,000,000.00
Reichhold Chemicals Inc S F Deb	8.000%	6/94	500,000.00
Republic Steel S F Deb	8.900%	11/95	1,007,000.00
Revlon Inc Notes	8.450%	5/85	3,000,000.00
Reynolds R J Industries S F Deb	7.375%	2/01	1,000,000.00
Standard Brands Inc S F Deb	7.750%	5/01	1,200,000.00
Sybron Corporation S F Deb	7.500%	4/94	1,000,000.00
Transocean Gulf Oil Gtd Notes	8.500%	11/81	4,000,000.00
Union Oil of Calif Deb	8.375%	12/82	1,000,000.00
Union Oil of Calif Deb	8.625%	3/06	1,500,000.00
United States Steel Sub Deb	4.625%	1/96	4,425,000.00
Vale B S Corp Note Ashland Oil	5.000%	6/86	365,384.61
Youngstown Sheet Tube 1st Mtg S F I	4.600%	7/95	407,000.00
			<u>69,975,994.61</u>
<u>Utilities:</u>			
American Tel Tel Deb	5.500%	1/97	2,100,000.00
American Tel Tel Deb	6.000%	8/00	1,000,000.00
Gen Telephone Florida 1st Mtg	8.000%	3/01	250,000.00
Gen Telephone Midwest 1st Mtg F	7.500%	2/01	200,000.00
Hawaiian Telephone 1st Mtg S	6.750%	4/98	100,000.00
Hawaiian Telephone 1st Mtg T	8.750%	9/00	200,000.00
Michigan Bell Tel Deb	7.000%	11/12	2,000,000.00
New York Tel Ref Mtg W	8.300%	8/12	1,500,000.00
Pacific Tel Tel Deb	7.800%	3/07	250,000.00
South Central Bell Tel Deb	8.250%	8/13	1,500,000.00
Southwestern Bell Tel Deb	4.625%	8/95	1,590,000.00
Southwestern Bell Tel Deb	6.750%	6/08	1,000,000.00
Southwestern Bell Tel Deb	7.750%	9/09	2,000,000.00
Alabama Gas Corp 1st Mtg F	7.250%	2/94	300,000.00
Arkansas Power Light 1st Mtg	4.375%	2/93	325,000.00
Arkansas Power Light 1st Mtg	5.875%	3/97	200,000.00
Brooklyn Union Gas 1st Mtg	4.375%	5/88	215,000.00
Cambridge Electric Light Notes C	6.250%	6/97	592,000.00
Cape Vineyard Elec Notes B	6.125%	6/97	99,000.00
Con Edison 1st Ref Mtg EE	6.250%	8/97	500,000.00
Con Edison 1st Ref Mtg FF	6.850%	10/98	250,000.00
Con Edison 1st Ref Mtg R	4.750%	6/90	575,000.00
Con Edison 1st Ref Mtg S	5.000%	12/90	700,000.00
Con Edison 1st Ref Mtg V	4.375%	6/92	1,150,000.00
Con Natural Gas Deb	9.250%	7/95	2,000,000.00
Consumers Power 1st Mtg	7.500%	6/02	3,000,000.00
Continental Oil Company Notes	4.750%	5/85	83,000.00
Continental Oil Company Notes	5.875%	12/89	687,000.00
Continental Pipe Line Guarntd Notes	7.500%	5/94	255,000.00

CORPORATE BONDS (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Utilities: (Continued)</u>			
Elizabethtown Water Co Deb N J	4.875%	2/92	818,000.00
Florida Power Corp 1st Mtg	7.375%	6/02	2,000,000.00
Florida Power Light 1st Mtg	4.625%	3/95	100,000.00
Florida Power Light 1st Mtg	5.000%	12/95	700,000.00
Interstate Power 1st Mtg	4.625%	5/95	400,000.00
Interstate Power 1st Mtg	5.000%	5/87	325,000.00
Interstate Power 1st Mtg	6.125%	5/97	555,000.00
Iowa Electric Lt Pr 1st Mtg J	6.250%	9/96	250,000.00
Kentucky Utilities 1st Mtg I	8.750%	4/00	300,000.00
Kentucky Utilities 1st Mtg J	7.625%	9/01	2,000,000.00
Lawrence Gas 1st Mtg A	6.000%	11/77	100,000.00
Louisiana Power Light 1st Mtg	5.750%	3/96	150,000.00
Louisiana Power Light 1st Mtg	6.500%	9/97	200,000.00
Louisville Gas Electric 1st Mtg	8.250%	8/01	2,000,000.00
Milwaukee Gas Light 1st Mtg	4.625%	5/87	794,000.00
New York State Electric Gas 1st Mtg	6.500%	9/98	250,000.00
Nor Indiana Pub Ser 1st Mtg O	6.375%	9/97	650,000.00
Northern Natural Gas Debentures	9.000%	11/95	4,500,000.00
Ohio Power 1st Mtg	10.125%	6/82	1,750,000.00
Old Ocean Fuel 1st Mtg	5.000%	1/81	1,045,000.00
Otter Tail Power 1st Mtg	4.875%	2/91	500,000.00
Pacific Gas Elec 1st Ref Mtg QQ	6.625%	6/00	1,000,000.00
Pacific Gas Elec 1st Ref Mtg XX	7.500%	12/03	1,300,000.00
Pacific Power Light 1st Mtg	4.500%	12/92	1,361,000.00
Pacific Power Light 1st Mtg	4.625%	10/94	385,000.00
Pacific Power Light 1st Mtg	4.750%	4/92	283,000.00
Pacific Power Light 1st Mtg	5.000%	10/95	270,000.00
Pennsylvania Electric Deb	5.250%	6/86	483,000.00
Pennsylvania Electric Deb	7.000%	11/92	98,000.00
Pennsylvania Electric 1st Mtg	4.625%	10/94	100,000.00
Pennsylvania Gas Water 1st Mtg	6.875%	10/92	250,000.00
Pub Ser Elec Gas Deb	6.000%	7/98	255,000.00
Pub Ser Elec Gas Deb	9.000%	11/95	1,115,000.00
Pub Ser Elec Gas 1st Ref Mtg	6.250%	6/97	790,000.00
Pub Ser Indiana 1st Mtg W	9.600%	8/05	500,000.00
Pub Ser New Hampshire 1st Mtg Q	9.000%	11/00	150,000.00
Sierra Pacific Power 1st Mtg	4.750%	6/94	200,000.00
Sierra Pacific Power 1st Mtg	4.875%	6/92	750,000.00
Sierra Pacific Power 1st Mtg	9.750%	5/00	200,000.00
Sou Elec Gen 1st Mtg 1959	5.250%	6/92	575,000.00
Sou Elec Gen 1st Mtg 1960	5.250%	6/92	1,200,000.00
Sou Elec Gen 1st Mtg 1961	5.250%	6/92	700,000.00
Sou Natural Gas 1st Mtg PL S F	4.750%	12/81	211,000.00
South Carolina Elec Gas 1st Ref Mtg	8.000%	3/01	250,000.00
Tenneco Inc Deb	9.875%	5/00	4,500,000.00
Texas Estrn Trans 1st Mtg PL	10.500%	5/90	744,000.00
Tucson Gas Electric 1st Mtg	4.550%	2/95	300,000.00
United Gas Inc 1st Mtg	6.500%	12/89	2,233,000.00
Virginia Electric Power 1st Ref Mtg	9.250%	3/06	1,000,000.00

CORPORATE BONDS (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Utilities: (Continued)</u>			
Washington Natural Gas 1st Mtg	6.875%	9/93	190,000.00
Western Mass Elec 1st Mtg	5.750%	3/97	200,000.00
Western Mass Elec 1st Mtg G	6.750%	3/98	100,000.00
Wisconsin Gas 1st Mtg	6.625%	10/91	625,000.00
			<u>66,326,000.00</u>
 <u>Finance:</u>			
Associates Investment Sr Deb	7.375%	12/88	800,000.00
Avco Financial Services S F Deb	6.125%	1/87	800,000.00
Bankamerica Corp Deb	7.875%	12/03	1,000,000.00
Beneficial Corp Notes	4.625%	6/87	1,000,000.00
Beneficial Finance Deb	4.500%	3/92	495,000.00
Beneficial Finance Deb	4.750%	5/93	1,000,000.00
Beneficial Finance Deb	5.000%	11/90	1,675,000.00
Beneficial Finance Sr Notes	4.600%	3/89	2,625,000.00
Commercial Credit Sr Notes	4.875%	9/87	1,000,000.00
Ford Motor Credit Deb	10.500%	10/94	3,000,000.00
General Electric Credit Sr Note	4.650%	5/86	2,500,000.00
General Motors Accept Corp Deb	7.750%	10/94	4,877,000.00
General Motors Accept Corp Deb	8.000%	1/02	3,500,000.00
General Motors Accept Corp Notes	8.125%	6/86	3,000,000.00
Household Finance Corp Deb	4.750%	1/89	3,500,000.00
International Harvstr Credit Deb	8.625%	8/91	500,000.00
Marathon Finance Guaranteed Notes	5.500%	5/87	387,500.00
Marathon Finance Promissory Notes	4.550%	4/85	163,200.00
Mellon National Corp Notes	7.800%	3/82	4,000,000.00
Montgomery Ward Credit Deb	6.500%	9/87	300,000.00
Montgomery Ward Credit Deb	9.250%	11/90	1,500,000.00
Penney J C Financial Corp Deb	7.875%	9/91	2,000,000.00
Roxbury Properties Corp Secrd Notes	4.750%	1/89	307,293.93
Seaboard Finance S F Deb	7.875%	4/89	608,000.00
United California Bk Cap Notes	4.500%	1/90	200,000.00
Villiers Realty Corp Secrd Notes	4.750%	10/89	321,710.91
			<u>41,059,704.84</u>
 <u>Railroad:</u>			
Atchison Topeka Santa Fe Equip Tr B	8.750%	3/85	241,000.00
Carolina Clinchfield Ohio 1st Mtg	4.500%	4/90	438,000.00
Chesapeake Ohio Ry Condtl Sale	6.000%	4/82	150,000.00
Chesapeake Ohio Ry Equip Trust	5.125%	4/82	337,000.00
Chesapeake Ohio Ry Gen Mtg	4.500%	3/92	656,000.00
Chic Burl Quincy RR Condtl Sales	5.500%	4/81	78,584.90
Chic Burl Quincy RR Condtl Sales	6.375%	8/82	381,333.60
Chic Burl Quincy 1st Ref Mtg	4.375%	2/78	100,000.00
Delaware Hudson RR Condtl Sale	6.875%	9/83	310,270.16

CORPORATE BONDS (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
<u>Railroad: (Continued)</u>			
Delaware Hudson RR 1st Gen Mtg	5.500%	5/83	359,000.00
Erie Lackawanna RR Condtl Sale	6.500%	5/82	203,304.44
Kansas City Sou Ry Condtl Sale	5.500%	10/81	90,000.00
Kansas City Sou Ry Condtl Sale	5.500%	4/81	150,000.15
Kentucky Central Ry 1st Mtg	4.000%	7/87	137,000.00
Ky and Ind Terminal RR 1st Mtg	4.875%	3/86	100,000.00
Louisville Nashville RR Col Trust	4.875%	12/87	1,290,000.00
Louisville Nashville RR Col Trust	7.375%	12/93	300,000.00
Louisville Nashville RR Condtl Sale	5.750%	11/81	180,789.68
N Y Central RR Equip Tr Cert	4.750%	2/81	160,000.00
N Y Central RR Equip Tr Cert	4.750%	2/78	100,000.00
Norfolk Western Ry Condtl Sale	6.000%	6/77	30,000.00
Norfolk Western Ry Condtl Sale	9.500%	5/85	880,000.00
North American Car Corp Equip Trust	8.500%	8/84	240,000.00
Northern Pacific Ry Condtl Sale	5.500%	3/82	150,000.00
Northern Pacific Ry Condtl Sale	6.625%	2/83	110,878.00
Seaboard Coast Line Condtl Sale	6.375%	6/82	239,841.68
Sou Railway Memphis Div 1st Mtg	5.000%	7/96	539,000.00
Southern Pacific RR 1st Mtg H	5.250%	10/83	100,000.00
Southern Railway 1st Con Mtg	5.000%	7/94	2,950,000.00
St Louis San Francisco Condtl Sale	5.750%	3/82	100,000.00
St Louis San Francisco Condtl Sale	6.250%	3/82	166,442.75
St Louis San Francisco Condtl Sale	6.250%	7/82	198,806.95
St Louis San Francisco Condtl Sale	6.750%	1/83	600,000.00
St Louis San Francisco Condtl Sale	7.250%	12/83	700,000.00
St Louis San Francisco Condtl Sale	8.250%	8/84	440,000.00
St Louis San Francisco Condtl Sale	9.375%	1/85	360,000.00
St Louis San Francisco Condtl Sale	9.500%	2/85	600,000.00
St Louis San Francisco Condtl Sale	9.750%	7/85	446,746.97
Texas Pacific Ry Equip Trust Cert	5.500%	3/80	300,000.00
Virginia Southwestern Ry 1st Mtg	5.000%	1/03	107,000.00
			<u>15,020,999.28</u>

Total Corporate Bonds

192,382,698.73

U. S. GOVERNMENT GUARANTEED MORTGAGES

	<u>Coupon</u>	<u>Maturity</u>	<u>Remaining Principal Balance</u>
<u>Single Family:</u>			
FHA	various		21,550,301.07
VA	various		<u>17,653,714.88</u>
			39,204,015.95

U. S. GOVERNMENT GUARANTEED MORTGAGES (Continued)

	<u>Coupon</u>	<u>Maturity</u>	<u>Remaining Principal Balance</u>
<u>Project Mortgages:</u>			
Bethany Circle Kings Daughters Ind GL	8.375%	3/02	230,854.96
Calif Guidance Care Center 232	8.500%	2/92	576,186.34
Calvert City Convalescent Ky I 232	7.000%	1/93	482,747.73
Camellia Center Hospital Calif 232	6.000%	11/88	580,685.27
Chateau Calif 221D4	8.500%	8/11	1,165,247.04
Congregational Home Aged Kan 231	5.250%	7/04	1,720,075.72
Cottage Bell Apts Calif 221D4	7.500%	11/10	1,000,697.09
Cottage Bell Apts II Calif 221D4	8.500%	11/11	468,688.95
Denver Ed Sr Citzns 231	5.250%	11/03	994,386.28
Encina Arms Sacramento Calif 221D4	8.500%	6/11	849,857.98
Ephraim McDowell Hospital Ky HEW GL	9.000%	1/01	930,000.00
Gallantine Apts Calif 207	5.250%	10/02	718,298.94
Gladman Nursing Home 232	5.250%	4/87	440,235.93
Glenway Lodge Inc Nursing Home 232	5.250%	9/87	167,018.75
Hallmark Plaza Ky 223F	8.500%	6/11	1,243,293.75
Hunt Park Gemini IV 221D4	5.250%	2/02	339,036.05
Longmont Christian Housing 231	5.250%	3/03	633,263.61
Merrick Manor Inc Lexington Ky 232	6.000%	4/89	518,462.88
Panorama West Covington Ky 236	8.500%	12/12	490,248.62
Salem Village No I FHA Sec 232 III	7.750%	3/16	1,079,855.33
Salem Village No II FHA Sec 231 III	7.750%	10/16	3,677,909.65
GNMA Mtg Pool 14923CL Boston Hosp	8.500%	6/84	55,000.00
GNMA Mtg Pool 13088CL Cortland Hosp	8.750%	4/81	385,000.00
			<u>18,747,050.87</u>
Total U. S. Government Guaranteed Mortgages			57,951,066.82

OTHER FIXED INCOME INVESTMENTS

	<u>Coupon</u>	<u>Maturity</u>	<u>Par Value</u>
Ky Industrial Dev Finance Auth Note	4.500%	7/85	198,333.29
Ky Industrial Dev Finance Auth Note	5.000%	7/86	63,333.37
Ky Industrial Dev Finance Auth Note	5.000%	1/87	466,666.70
Ky Industrial Dev Finance Auth Note	5.500%	1/87	133,333.40
Ky Industrial Dev Finance Auth Note	5.500%	7/87	70,000.03
Kentucky Southern College 1st Mtg	5.250%	1/83	500,000.00
Republic Panama External Secured	4.800%	4/93	2,385,000.00
Total Other Fixed Income Investments			<u>3,816,666.79</u>

COMMON STOCKS

	<u>No. of Shares</u>	<u>Cost</u>	<u>Market Value</u>
Aetna Life and Casualty Company	38,000	950,595.53	1,415,500
Allied Chemical Corp.	49,000	1,945,283.25	2,450,000
American Express	78,500	2,488,927.59	3,179,250
American Telephone Telegraph Company	66,500	3,682,106.30	4,222,750
Beatrice Foods Company	65,000	1,491,851.19	1,608,750
Beneficial Corporation	58,000	2,678,781.28	1,384,750
Bristol - Myers Company	40,000	1,430,937.50	1,310,000
Caterpillar Tractor	30,000	1,043,799.45	1,732,500
CBS Inc.	33,000	1,721,622.17	1,942,875
Clorox Company	80,000	2,610,492.15	1,040,000
Coca Cola Company	51,000	3,238,319.28	1,899,750
Continental Oil Company	66,000	2,130,745.83	2,235,750
Deere and Company	10,000	282,350.00	285,000
Dow Chemical Settlement Pending	866	61,288.37	29,552
Dresser Industries, Inc.	35,000	1,037,585.48	1,601,250
Eastman Kodak	23,000	3,175,428.00	1,368,500
Exxon Corporation	69,000	2,680,269.26	3,691,500
Federated Department Stores	87,100	3,786,337.71	3,222,700
Florida Power Light Company	80,000	3,176,575.20	2,170,000
Gannett Company, Inc.	80,000	2,926,177.50	2,890,000
General Electric Company	64,100	3,118,325.31	3,621,650
General Mills, Inc.	30,000	847,417.98	885,000
General Motors Corporation	64,000	4,946,753.98	4,440,000
Gillette Company	75,000	4,572,348.35	2,128,125
Hewlett - Packard Company	10,000	925,797.46	790,000
Ingersoll - Rand Company	12,200	982,238.50	855,525
International Business Machines	18,551	4,413,611.72	4,897,464
International Paper	42,000	2,253,033.00	2,163,000
International Tel. and Tel. Corp.	75,000	3,797,634.80	2,690,625
Kentucky Utilities Company	52,900	1,493,868.66	1,289,438
Lilly Eli and Company	34,000	1,759,922.50	1,330,250
Louisville Gas and Electric Company	120,000	3,828,078.08	3,210,000
Mobil Corporation	45,000	3,010,075.00	3,060,000
Penney J. C. Company	28,500	2,253,842.13	993,938
Philip Morris, Inc.	66,200	3,603,200.15	3,690,650
Procter and Gamble	17,000	1,599,580.00	1,362,125
R. J. Reynolds Industries, Inc.	65,500	3,981,441.69	4,363,938
Sears Roebuck and Company	39,900	3,281,957.30	1,162,088
Standard Oil Company Indiana	51,500	2,602,712.16	2,768,125
Texas Utilities Company	155,000	4,501,743.23	3,332,500
U. S. Steel Corp.	25,500	1,038,577.50	1,013,625
Warner Lambert Company	68,000	2,065,521.36	1,946,500
Xerox Corporation	25,800	3,427,868.31	1,257,750
Total Common Stocks	<u>2,225,617</u>	<u>106,845,022.21</u>	<u>92,932,693</u>

ACTUARIAL VALUATION

KRS 161.400 requires that an Actuarial Valuation be performed at least once in each two year period. The most recent Actuarial Valuation was completed as of July 1, 1976, and has been previously distributed to interested individuals and organizations. Certain excerpts from the valuation are included on the following pages to assist in evaluating the financial soundness of the Retirement System, and perhaps equally important, to focus attention on the dangers of improving benefits without increasing contributions.

Part III of the Actuarial Valuation, "Summary and Recommendations", states as follows: "It is our conclusion that the Retirement System is actuarially sound and that the deficiency can be met in the future but extreme caution should be exercised."

KRS 161.400 also requires an Actuarial Investigation at least once in each ten year period. Such an investigation was completed by the Retirement System actuaries as of June 30, 1976. An Actuarial Investigation requires comprehensive analysis of past experience of the Retirement System and the subsequent development of actuarial tables projecting experience trends into the future. Such tables relate to rates of mortality, withdrawal, disability and retirement as well as interest rate and salary scale. These tables are subsequently utilized in the preparation of the Actuarial Valuation referred to above. A complete copy of the Actuarial Investigation is available in the Retirement System Office for review and examination by interested parties.

P A R T I

Valuation as of July 1, 1976

The results of the valuation of the System are summarized in the actuarial balance sheet set forth on the following page. These results are based on (a) membership data provided by the System, (b) the various service tables and salary scales developed as a result of the recent actuarial investigation of the System for the period from July 1, 1971 to June 30, 1976, as evaluated in our report dated March 17, 1976, and (c) an assumed investment yield rate of 5% per annum, compounded annually. This rate has been increased from 4 1/2% effective with this, the July 1, 1976 valuation.

It will be noted that the assets in the balance sheet are divided into two main categories: (1) the present assets, based on the current value shown in the books of the System, and (2) prospective assets represented by future member and Commonwealth contributions by and on behalf of present members. The various fund balances included in the total present assets of \$529,755,561 are shown in the balance sheet and the distribution of these present assets is noted in a footnote.

In the prospective asset category, the present values of members' and Commonwealth's contributions were each computed at a rate of 7.45% of salaries which has been in effect since the July 1, 1974 valuation. While the actual rate for each contribution is 7.7% of salaries, 1/4% of this rate is paid to the Hospital and Medical Insurance Fund. Since this Fund is considered to be self-supporting, both the assets and liabilities for benefits from the Fund were eliminated from our valuation, except to the extent of reserves already on hand in the Fund. Therefore, the prospective assets reflect a

ACTUARIAL BALANCE SHEET SHOWING PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES AS OF JULY 1, 1976

<u>A S S E T S</u>	<u>L I A B I L I T I E S</u>
<u>Present assets at book value</u>	<u>Present value of benefits payable</u>
Teachers' Savings Fund - \$222,833,500*	<u>to present annuitants:</u>
State Accumulation Fund 222,833,500*	Service retirement benefits -- \$ 541,282,980
Guarantee Fund ----- 18,275,768*	Disability retirement benefits 21,707,950
Voluntary Contributions	Present and future death and
Active Members ----- 2,100,976*	survivor benefits ----- 35,934,321
Allowance Reserve Fund - 48,024,992*	\$ 598,925,251
Hospital and Medical	<u>Present value of future benefits</u>
Insurance Fund ----- 6,214,531	<u>payable to active and inactive members:</u>
Survivor and Death	Service retirement benefits -- \$1,201,479,532
Benefit Fund ----- 9,454,077*	Disability retirement benefits 60,464,266
Expense Fund ----- 18,217	Refunds of contributions ----- 169,840,183
\$ 529,755,561**	Death and survivor benefits -- 82,431,035
<u>Prospective assets:</u>	\$1,514,215,016
Present value of future	<u>Special reserves:</u>
7.45% contributions	Voluntary Contributions--
of present members ---- \$396,219,265	Active Members ----- \$ 2,100,976
Present value of future	Hospital and Medical
State 7.45% contribu-	Insurance Fund ----- 6,214,531
tions related to	Expense Fund ----- 18,217
present members ----- 396,219,265	\$ 8,333,724
Deficiency in reserves	
to be financed in the	
future related to:	
Prior service ----- 50,007,571	
Service subsequent	
to July 1, 1941 ----- 749,272,329	
\$1,591,718,430	
<u>TOTAL ASSETS ----- \$2,121,473,991</u>	<u>TOTAL LIABILITIES ----- \$2,121,473,991</u>

*June 30, 1976 balance as adjusted for transfers made July 1, 1976 on account of retirements on July 1, 1976.
 **Total present assets distributed as follows:

Cash -----	\$ 5,131,517
Special Reserve Account -----	130,678
Overpayments made by Employers -----	(-) 24,937
Invested assets -----	527,693,871
Amortization Reserves for Premiums and	
Discounts on Investments -----	(-) 3,497,216
Accrued interest -----	321,648
<u>TOTAL -----</u>	<u>\$529,755,561</u>

present value of only a 7.45% rate for each of the members' and State's contributions, while the only liability shown for hospital and medical benefits are for the reserves currently in the Fund. Both of these present values of contributions by and on behalf of present members. The other item in this prospective asset category refers to a deficiency in reserves on the basis of this valuation totalling \$799,279,900 which will be discussed in Part II of this report. The additional Commonwealth contribution of 2.8% (3% as of July 1, 1977) was not reflected in the present value of future Commonwealth contributions. This additional contribution will be referred to in Part II of this report when the deficiency of \$799,279,900 is discussed.

On the liability side of the balance sheet, there are two main divisions of the liability; the first section relates to the present annuitants and the second section to the present active and inactive members. It can be noted that the total liability on account of benefits payable in the future to annuitants is \$598,925,251; the liability on account of benefits payable in the future to active and inactive members amounts to \$1,514,215,016; and, finally, there are special reserve items of \$8,333,724 representing the balances in the accounts for the Voluntary Contributions, the Hospital and Medical Insurance Fund and the Expense Fund.

A discussion of each of the items of liability follows:

1. Present value of benefits payable to present annuitants - \$ 598,925,251

The present value of benefits payable to present annuitants equals an amount of \$598,925,251. An analysis of this total liability for present annuitants according to the type of annuity is shown in the following table:

<u>Type of Annuity</u>	<u>Liability as of July 1, 1976</u>
Option 1: Single Life -----	\$449,069,252
Option 2: Single Life with 10 years certain -----	48,128,382
Option 3: Joint Life with 100% to Beneficiary -----	9,603,166
Option 4: Joint Life with 50% to Beneficiary -----	17,361,104
Option 5A: Joint Life with 100% "Pop-up" option -----	1,060,663
Option 5B: Joint Life with 50% "Pop-up" option -----	8,947,419
Other options -----	18,642,493
Disability -----	22,449,097
Beneficiary and Survivor -----	<u>23,663,675</u>
Grand Total -----	<u>\$598,925,251</u>

2. Present value of future benefits payable to active
and inactive members ----- \$1,514,215,016

This total liability represents the present value of all future benefits payable to the present members of the System who have not yet retired, including their benefits for prior service, service subsequent to July 1, 1941 but prior to July 1, 1976 and future service.

3. Reserve for Voluntary Contributions - Active Members --- \$ 2,100,976

This reserve item represents the amount of voluntary contributions made by currently active and inactive members with accrued interest additions.

4. Reserve for hospital and medical insurance ----- \$ 6,214,531

This reserve item represents the amount held for payment of insurance premiums for hospital and medical benefits.

5. Reserve for expenses ----- \$ 18,217

This reserve item merely represents the balance in the Expense Fund as of July 1, 1976.

6. Total Liabilities ----- \$2,121,473,991

This item represents the total liabilities of the System for all benefits payable in the future, to present annuitants and members, both those accrued on account of service to July 1, 1976 and those to be earned by service in the future.

P A R T II

Sufficiency of Contribution Rates Under the Law in Effect as of July 1, 1976

In this part of the report, we would like to discuss the sufficiency of the present contribution rates of 7.45% by the members and 7.45% by the Commonwealth under the System as in effect as of July 1, 1976. The rates used are the amounts which are available for retirement and death benefits; i.e., the 15.4% total contribution less the amounts contributed by the members and matched by the Commonwealth for hospital and medical insurance.

In order to study the adequacy of the contribution rate of the System as in effect on July 1, 1976, we turn to the balance sheet as shown on page 37. While most of the following comments are related to the asset side of the actuarial balance sheet, and in particular to the value of prospective future contributions on account of present members, it should be made clear that our calculations of the liability side of the actuarial balance sheet take into account the number of members who may be expected to withdraw from the Retirement System prior to their eligibility for deferred vested benefits, including as a liability only the amount of their accumulated contributions at the time of withdrawal. In other words, we have assumed that some of the present members will be paid retirement annuities, some will be paid disability benefits, the beneficiaries of some will be paid death or survivor benefits, after the death of the member in service, and some will leave employment in the public schools and receive no more than their accumulated deposits. The liability side of the balance sheet includes our estimated value for each of these types of payments.

It will be noted in the balance sheet that, as compared with the total

liability of \$2,121,473,991 required to provide all present and future benefits as of July 1, 1976, there were assets on hand of \$529,755,561. This means that the present value of assets needed in the future to balance the liabilities amounts to the sum of \$1,591,718,430. It can be seen from the balance sheet that \$396,219,265 of these future assets represents the present value of the members' effective 7.45% contributions in the future and the same figure of \$396,219,265, the corresponding value of the Commonwealth effective 7.45% contributions in the future. When the total of these amounts is deducted from \$1,591,718,430, we arrive at the over-all deficiency in reserve for the present members to be financed in the future and this figure is \$799,279,900.

Part of this deficiency, in the amount of \$50,007,571, represents the unfunded portion of prior service benefits payable under the provisions of the Kentucky Teachers' Retirement Law. The Law (Section 161.550) provides for supplemental appropriations by the Commonwealth to discharge this prior service obligation, so that the deficiency remaining to be funded from "permanent" State contributions is \$799,279,900 minus \$50,007,571, or \$749,272,329. As of July 1, 1977 the Commonwealth will be contributing an additional 3.0% of payroll (currently 2.8% additional is being contributed.) The present value of 3.0% of future payroll is approximately \$160,050,000, or substantially less than the total deficiency of \$799,279,900.

If there is a deficiency after taking into account the present value of all future member and State contributions for present members, a question arises as to how it is possible to meet the current deficiency of \$749,272,329 with the present contribution rate. One possible answer is based on the fact that this rate is more than adequate for future members if the present benefit structure remains in effect, and would provide excess funds in future years for funding the deficit.

We have made tests which indicate that the total contribution rate required, on the average, to fund the benefits of new entrants as a level percentage of salary during membership is 11.90% of payroll. This is an increase in the corresponding rate of 10.40% used for the valuation as of July 1, 1972 and 11.50% used for the valuation as of July 1, 1974. Since this average required rate of contribution is 11.90% and the members contribute 7.45%, the Commonwealth must contribute the remaining 4.45% of salary to meet the normal cost. This means that, for future entrants, there is a residual Commonwealth contribution of 3.00% (i.e., 7.45% - 4.45%) which may be applied toward the deficiency for the present members. To this residual contribution of 3.00%, should be added the additional 3.00% contribution to be made by the Commonwealth, commencing July 1, 1977, for a total of 6.00% in residual contributions.

Our calculations indicate that, if 6.00% out of the effective contribution of 10.45% by the Commonwealth for future entrants is applied to fund the total unfunded accrued liability of \$799,279,900 as of July 1, 1976 (including the unfunded prior service liability), the funding periods on the three different assumptions as to future increases in payrolls as the result of new entrants are as follows:

<u>Assumptions as to Future Increases in Payroll as the Result of Future Entrants</u>			
		<u>4% Annual Increase</u>	<u>6% Annual Increase</u>
<u>Level</u>			
Period of funding deficiency -----	Never	39.5 years	30.0 years

Based on these results, it is our opinion that a net Commonwealth contribution rate of 10.45% of payroll along with a net 7.45% contribution rate paid by the members is sufficient to fund the normal cost each year and to complete the funding of the deficiency of \$799,279,900 over a reasonable period of years.

In view of the results discussed above, we recommend that no major

liberalizations be made without corresponding contribution increases.

A second concern relates to the continually increasing liabilities being created under the System as the result of benefit liberalizations. The deficiency under the System (other than that related to prior service benefits) has increased markedly during the period since our last valuation, as of July 1, 1974 from \$385,080,311 to \$749,272,329. If the System had terminated as of July 1, 1976, the assets would not have been sufficient to provide the remaining lifetime annuities to present annuitants on the basis of the revised actuarial assumptions. This ignores the fact that part of the assets represent accumulated member contributions which must be returned to members in the case of a System termination. In other words, the total liability for remaining benefits to present payees plus accumulated member contributions is \$823,859,727 (\$598,925,251 plus \$222,833,500 plus \$2,100,976) but total assets on hand is only \$529,755,561. A period of stability should enable the Commonwealth to rebuild the assets so that active as well as retired members will have some funds on hand to undergird the liabilities for their accrued benefits.

P A R T I I I

Summary and Recommendations

This valuation of the Retirement System as of July 1, 1976 has been made using the actuarial tables developed in the actuarial investigation for the period July 1, 1971 to June 30, 1976 as submitted in our report dated March 17, 1977. In conjunction with these actuarial tables, we have used an interest assumption of 5% per annum.

This valuation reveals that the Retirement System is actuarially sound assuming that the total payroll continues to expand substantially in the future as the result of increases in the number of members and that the Commonwealth continues to make adequate annual provision for funding the unfunded prior service liability of the System. While it is true that the deficiency of \$749,272,329 in addition to the unfunded prior service liability of \$50,007,571 is very high in relation to the present assets and the prospective contributions, the period required to fund the deficiency is not unduly lengthy - ranging from approximately 40 years, assuming that the total payroll increases at a rate of 4% annually in the future, to 30 years, assuming increases at the rate of 6% annually in the future.

One unfavorable aspect of the comined deficiency of \$799,279,900 is that it is substantially higher than the corresponding amount of \$442,556,691 as of July 1, 1974. It might have been expected that the deficiency would have been reduced because of the introduction of new members for whom the total 17.40% rate of contribution by the members and the Commonwealth is more than sufficient to fund benefits. However, this was more than counterbalanced by the additional liabilities resulting from (1) substantial numbers of new

annuitants and increased average benefits for all annuitants and (2) rates of salary increases substantially in excess of those assumed in calculating liabilities. Since retirement benefits are primarily based on the average of the five highest salaries, salary increases for individuals at rates higher than assumed can lead to substantial increases in the deficiency.

Another unfavorable factor is the fact that the Commonwealth made insufficient payments toward the prior service liability for the fiscal years of the System ending prior to June 30, 1976. This situation has resulted in an increase in this liability which will have to be funded over future years.

It is our conclusion that the Retirement System is actuarially sound and that the deficiency can be met in the future but extreme caution should be exercised. We recommend that no further benefit liberalizations be made at this time, without corresponding increases in contribution levels, because of (1) the experience relating to rates of increase in individual salaries, (2) the lack of payment by the Commonwealth in the past of required amounts toward the prior service liability, (3) the increasing deficiency and (4) the relatively small size of assets.

