which the payment of the benefits and contributions is dependent. These factors may be briefly summarized as follows :—

(*a*) Rate of interest ;
(*b*) Mortality-rates of pensioners ;
(*c*) Average salary scales ;
(*d*) Mortality-rates of contributors ;
(*e*) Withdrawal-rates of contributors ;
(*f*) Retirement-rates of contributors ;
(*g*) Marriage-rates of contributors ;
(*h*) Probability of a member leaving children under fourteen years of age, and the average number of children ;
(*i*) Remarriage-rates of members' widows.

15. The rate of interest used in valuing benefits and contributions is 4½ per cent. throughout. Judged by the present interest rates of over 6 per cent. earned by the fund, the valuation basis may appear conservative. The rapid increase in interest-rates since the late war, however, was only what was expected by every financial authority, and it is just as certain that a peak point will be reached —if it has not already been reached—and that interest rates will then fall, although the process of returning to normal must necessarily be slow. It might also not be out of place to point out that, in fixing a valuation rate of interest, due allowance must be made for the purposes for which the valuation is made. If, for example, actuarial valuation of a fund was being made mainly for the purpose of testing the adequacy of the contributions or of considering the extent to which increased benefits could be granted, the valuation rate of interest would require to be based on the expected rates over the full period of pension-fund membership—say, from sixty to eighty years—and in such a case 4½ per cent. would be an optimistic forecast. When, however, as in this instance, valuation is being made of a deficiency fund requiring an annual State subsidy, and it is unlikely that for many years any additional subsidy will be required to cover interest short of 4½ per cent., there is some justification for anticipating a portion of the interest profit in order that the taxpayer of the day should only shoulder his fair share of the burden. I accordingly decided that the nature and circumstances of the fund warranted the valuation being made on a financial basis of 4½ per cent.

16. The mortality-rates adopted for pensioners were based on an investigation of the combined experience of the three Government Superannuation Funds (Public Service, Railways, and Teachers') for the period 1919–27, supplemented where necessary by the earlier experience of the funds. From a careful study of the figures, combined with the results of concurrent investigations into similar funds and in the general population, it is clear that there is an improvement of vitality which has been progressive over a long period of time, and accordingly it has been deemed advisable in fixing the valuation bases to make some allowance for probable future improvements in the vitality of pensioners.

17. The next factors which entered into the calculations were the scales of average salaries in respect of male and female teachers for the year immediately following the valuation date. The salary scales constructed from the current experience of the fund were not themselves assumed in making the valuation, but the ratios of increase from age to age were applied to the actual salary of each contributor as at the 1st February, 1927.

18. The rates of mortality, withdrawal, and retirement of contributors used in the valuation were based on an examination of the fund's experience since the previous valuation, males and females again being investigated separately. Details of the Experience Tables adopted and the Life and Service Tables deduced therefrom are given in Tables VI and VII of the appendix.

19. The factors necessary for the valuation of widows' and children's benefits were calculated from population statistics combined with the experience of the fund itself.

Results of Valuation.

20. The Act (section 38 (2)) requires the actuarial report to be so prepared "as to show the state of the fund at the close of the period, having regard to the prospective liabilities and assets." The valuation has been made accordingly, and the results are shown in Table VIII of the appendix, but they may be shortly summarized as follows :—

	£	£
Present value of existing pensions and allowances		1,770,374
Present value of prospective benefits	5,388,605	
Less present value of members' contributions	1,428,026	
		3,960,579
Total net liabilities		5,730,953
Funds in hand		1,083,155
Present value of total liability of State		4,647,798
Less present value of present subsidy of £68,000 per annum (if treated as a perpetuity)		1,511,111
Value of future subsidies to be provided for by the State over and above the present subsidy of £68,000 per annum		£3,136,687

21. It will be seen from the above statement that there is a total State liability of £4,647,798. It may not be out of place on this occasion, when a valuation basis of 4½ per cent. has been employed for the first time, to briefly explain the main causes of so large a deficiency.