allowed for each year of service prior to the establishment of the Fund, together with the assessment of the contributions of the original members at rates inadequate to provide even for future service, was left entirely to the future, and the Fund proceeded to pay the pensions of the older members from the accumulations of the younger men, instead of following the sound practice of keeping intact these accumulations, together with the interest earned thereon, to meet as they matured the pensions they were designed to furnish.

In 1911—after the scheme had been in operation for seven years—an annual subsidy of £25,000 was commenced. The first actuarial examination of the Fund was made by Mr. Morris Fox as at the 31st March, 1912, and disclosed a deficiency of £1,776,851. Mr. Fox pointed out that an annual subsidy of £50,000 was necessary in respect merely of pensions and allowances in possession or accruing within the ensuing three years. No effect was given to the recommendation made, although the increased subsidy was paid for one year—1915. As the result of the second actuarial investigation, made by Mr. P. Muter, F.I.A., as at the 31st March, 1919, a definiency of £3,959,455 was disclosed. Mr. Muter, not being bound by any statutory provisions regarding subsidy, decided, very properly, in my opinion, that the subsidy should bear a direct relation to the deficiency, and recommended that the future annual subsidy be increased to £170,000, so as to extinguish the deficiency in about seventy-five years. He went on to state, "The amount should, of course, be subject to occasional adjustment to meet changes in the factors. As already stated, the total pay-roll of the employees included in the Fund is £2,256,369 per annum, and it may be pointed out that the subsidy recommended represents approximately 7½ per cent. thereon. It is usually considered by the highest actuarial authorities that a subsidy of 5 per cent. or 6 per cent. on the pay-roll is quite a reasonable amount for an employer to pay for the undoubted benefits he gets from a pension fund. In this case the figure is somewhat higher by reason of the fact that the State (as employer) failed to make the proper contributions to the Fund from the very inception, and has now to provide not only the short payments of the past, but interest thereon."

I had the honour of making the third actuarial investigation as at the 31st March, 1927, and found that, as the result mainly of the effect of the World War on salary levels and the policy of early retirements, the deficiency had increased from £3,959,455 at 1919 to £6,810,204 at 1927. The reasons for this abnormal increase of nearly three millions are set out fully in paragraphs 19 to 21 of my report which was recently laid on the table of the House of Representatives by leave (parliamentary paper 1932, D.-5a). I pointed out (vide par. 23) that this deficiency, which was guaranteed by the State as employer, was equivalent to an annual interest income (at 4½ per cent.) of £306,459, and as this amount constituted an annual payment in perpetuity, and did not include any subsidy to new entrants, I recommended a future annual subsidy equal to 10 per cent. of the salary roll, commencing at about £340,000 per annum. I further pointed out (vide par. 29) that, if it were desired to go further so as to more rapidly redeem the deficiency, a higher subsidy than 10 per cent. could be fixed, or, alternatively, the Fund could be strengthened by suitable amendments to the Government Railways Act. The most important amendment suggested was that the employees' right to retire after forty years' service be abolished. So far as I am aware, none of my recommendations have been given effect to. Instead, some hundreds of retirements of officers with thirty-five years' service have been effected, irrespective of age. In this connection I cannot do better than point out that the new annual pensions and allowances, which had exceeded £28,000 on only two previous occasions, rose to £40,574 in 1930–31, and to no less than £143,808 in 1931–32.

All Funds.

In order to present a picture of the deficiency in the combined funds it is necessary to choose between taking the results as at the 1927 valuations, which are now out of date on account of the serious financial retrogression that has since taken place, or amalgamating the 1930 valuation results of the Public Service and Teachers' Funds with the 1927 valuation results of the Railways Fund. Although the latter method suffers from the serious defect of not bringing the values to a common date, and, moreover, makes no allowance for the drift in the Railways Fund since 1927, I have adopted it for illustrative purposes to show that the estimated present deficiency of £23,000,000 stated by the National Expenditure Commission is not far from the mark.

## Amalgamated Valuation Results of Funds.

(Public Service	Superannua	ition and	Teacher	s at ?	1930 ; Railwa £	ays at 1 £	927.)	£
Present value of existing per Present value of prospective Less present value of mand less value of State	e benefits nembers'co	$\inf_{\mathbf{n} \in \mathcal{N}} \mathbf{n}$	ns	  ldren	6,582,369 954,543	24,918	,613	7,926,187
The less value of State	subsity it	T WIGOW.	S WILL VIII	IGIOII		7,536	,912	17,381,701
Total net liabilities Funds in hand	••	••	••	• •	. •• ••	••	•••	25,307,888 5,067,043
Present value of total liabil Less present value of s			treated	as a	perpetuity)	••		20,240,845 7,200,000
Value of future subsidies to be provided by the State over and above the present subsidy £13,040,845 of £324,000 per annum								

<sup>\*</sup>Note.—This amount has since been reduced to £299,000 by the reduction of the subsidy of the Teacher's Fund from a minimum of £68,000, at which it has stood since 1922-1923, to £43,000.