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.

5. 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 £1,151,851 after allowing for an annual subsidy of £25,000. 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.

6. As the result of the second actuarial investigation, made by Mr. P. Muter, F.I.A., as at the 31st March, 1919, a deficiency 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 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."

7. I had the honour of making the third actuarial investigation as at 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 £3,000,000 were set out fully in paragraphs 18 to 21 of my report which was laid on the table of the House of Representatives by leave (parliamentary paper 1932, D.–5A). I pointed out that the 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 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 for as I am aware, none of my recommendations has been given effect to. Instead, some hundreds of retirements of officers with thirty-five years' service have been effected, irrespective of age.

## Legislation.

8. Since the date of the last valuation, important legislation affecting the Fund has been passed by Parliament. The amendments having a direct bearing on the actuarial position may be briefly summarized as follows:—

(*a*) Section 14 of the Finance Act, 1931, as amended by section 42 of the Finance Act, 1931 (No. 4), extended to any existing contributor the benefit of an "actuarial" pension on compulsory retirement within five years of the date when the contributor would have been entitled to retire as of right, or with the consent or approval of the Minister in Charge of the Department in which he is employed. In such cases it is provided that "the allowance shall not in any case be of an amount greater than the minimum amount which the Government Actuary certifies can be granted by way of such retiring-allowance without imposing on the Superannuation Fund any additional liability by reason of such retiring-allowance being granted before the earliest date on which the contributor would have been entitled, as of right, to receive a retiring-allowance on his voluntary retirement." It does not appear to be sufficiently appreciated by the average contributor that the Superannuation Fund neither gains nor loses by such a method of providing for compulsory retirements. Prior to this valuable concession to contributors, the Fund made a material gain as the benefit was limited to a return of contributions.

(*b*) Section 8 of the Finance Act, 1931, gave to all contributors whose salaries were "cut" in accordance with the general reductions the option to protect their superannuation rights by continuing to contribute and receive pensions based on not less than the pre-cut salary, or alternatively, to pay contributions and have pensions based on actual salaries, in which latter case, contributions paid in the past on any salary in excess of the amount to which the salary was "cut" were in effect refunded to the contributor as they were applied, until exhausted, by the Superannuation Board in reduction of contributions thereafter