

1950
NEW ZEALAND

NATIONAL PROVIDENT FUND

ACTUARY'S REPORT ON THE VALUATION OF THE FUND AS AT 31st DECEMBER, 1947

Laid Before Parliament in Pursuance of Section 73 of the National Provident Fund Act, 1926

Wellington, 29th November, 1949.

1. In accordance with the provisions of section 73 of the National Provident Fund Act, 1926, as amended by section 8 of the National Provident Fund Amendment Act, 1942, I have the honour to submit the following report on the National Provident Fund as at 31st December, 1947.

2. The Fund is divided broadly into two sections—the Main Fund, established in 1911 to enable individuals to purchase pensions commencing at age sixty, and the Local Authorities' Section, established in 1917 to provide pension facilities for employees of local authorities and other bodies of a like nature.

Both sections have the same fundamental purpose—the provision of income in old age—but of necessity, because of the fields in which they operate, they differ considerably in detail. The published accounts, however, relate to the Fund as a whole.

3. The receipts and expenditure of the Fund for the quinquennium 1st January, 1943, to 31st December, 1947, were as follows:—

CONSOLIDATED REVENUE ACCOUNT, 1ST JANUARY 1943, TO 31ST DECEMBER, 1947

<i>Income</i>	£	<i>Outgo</i>	£
Amount of Fund at 1st January, 1943	6,862,358	Refund of contributions on lapse, withdrawal, &c.	864,301
Contributions	2,098,832	Incapacity allowance	57,780
Interest, less investment expenses	1,399,033	Death claims: Refunds of contributions	234,319
State subsidies	483,427	Widows' and children's allowances	86,281
Benefits refunded on exit	128,336	Retirement-allowances	667,684
Miscellaneous receipts	19	Investment Fluctuation Account	31,100
Refunds unclaimed	10,215	Amount of Fund at 31st December, 1947	9,586,611
Premiums on conversion	32,247		
Funds taken over	513,609		
	£11,528,076		£11,528,076

4. All contributions paid by contributors—with minor exceptions noted in paragraphs 7 and 8—attract a 25-per-cent. State subsidy, and, in addition, the State meets all expenses other than the charges by the Public Trustee for his administration of the assets of the Fund and legal charges incurred in connection with investments. The Public Trustee's charges and legal expenses have been regarded as investment expenses and deducted from interest in the Consolidated Revenue Account. The State also guarantees the solvency of the Fund.

During the quinquennium under review, independent superannuation funds established by the Wellington and Auckland Harbour Boards were taken over by the Local Authorities' Section; the funds transferred in respect of liabilities accrued at the date of merger amounted to £513,609.

5. The average annual rates of interest credited to the accumulated funds for each year of the quinquennium were as follows:—

Year Ended 31st December,					Average Rate of Interest, Per Cent.	
	£	s.	d.			
1943	3 14 10
1944	3 13 6
1945	3 12 4
1946	3 10 5
1947	3 7 2

In calculating the above rates, investment expenses have been deducted from interest, and allowance has been made for the fact that the State subsidy taken credit for in the accounts of any year is not received until some months later.

In 1937 and 1942 the Fund was valued using $3\frac{1}{2}$ per cent. interest. The above yields indicate obviously that a lower rate must be used for this valuation; and $3\frac{1}{4}$ per cent. has been adopted accordingly.

MAIN FUND

6. Any resident of New Zealand who is over sixteen and under fifty years of age may become a contributor to the Main Fund. The benefits granted are:—

- (i) A pension commencing at age sixty of 10s., 20s., 30s., or 40s. per week, as the contributor may elect.
- (ii) The first 10s. of any such pension carries with it the right to the following subsidiary benefits:—
 - (a) An allowance of 10s. per week for each child under the age of sixteen years, and 10s. per week for the contributor's widow, payable from the date of his death, provided he has contributed to the Fund for five years. The widow's allowance is payable only so long as a child's allowance is payable.
 - (b) An allowance of 10s. per week for each child under the age of sixteen years, payable during the fourth and subsequent months of the contributor's total incapacity to work while he is under sixty years of age, and provided that he became incapacitated after contributing to the Fund for five years. The total weekly allowance so payable is not to exceed the contributor's pecuniary loss, and is reduced by 1s. a week for every shilling by which the contributor's income from other sources exceeds £5 per week. Contributions cease while such allowances are payable.
- (iii) On the termination of the contract through any event a return to him or to his beneficiaries of all contributions paid less any benefits received.

The contributions payable for a pension of 10s. per week range from 9d. per week for age sixteen at entry to 9s. 4d. per week for age forty-nine at entry. Contributions for all ages at entry are shown in Table I of the Appendix to the report on the 1937 valuation of the Fund.

7. An approved friendly society may become a contributor to the Main Fund on behalf of any of its members. The benefits granted are pensions of 10s., 20s., 30s., or 40s. per week commencing at age sixty, and a return of contributions paid, less benefits received (if any), on the death of the member, whether before or after attaining age sixty or on his withdrawal. Such members pay low rates of contribution, which their societies supplement by payments from their sick-benefit funds, the funds being reimbursed by release from liability of equal value in respect of the member's sickness after age sixty. The contributions—both members' and societies'—which are given fully in Table I of the Appendix to the 1937 valuation report, attract a 50-per-cent. State subsidy.

8. Special provisions enable employers to become contributors to the Main Fund on behalf of their employees. The benefits are as described in paragraph 6, but the scope is widened by admitting employees irrespective of their income or age at the date of joining, and by granting pensions up to 80s. (by units of 10s.) per week. Where, however, a pension is contracted for when the employee is fifty years of age or over, and where the pension exceeds 40s. per week, the whole of the contribution payable in the former case and that portion of the contribution payable in respect of the excess of the pension over 40s. per week in the latter does not attract a Government subsidy. The Fund receives all contributions from the employer, who may or may not pay the whole or part thereof, according to his arrangement with his employees.

9. Females are admitted to the Main Fund on practically the same terms as males. There are, however, minor modifications in the conditions precedent to the grant of the subsidiary benefits described in paragraph 6, and where advantage is taken of the widened provisions of entry in employer groups the rates of contribution payable are somewhat higher than the corresponding rates for males. There are comparatively few female contributors to the Main Fund.

10. At the valuation date there were 15,642 members of the Main Fund contributing £1,248 per week for prospective pensions amounting to £10,756 per week. Pensions amounting to £807 per week were being paid to 1,112 pensioned contributors, and 198 widows and 319 children were in receipt of allowances of 10s. per week, the total annual charge for pensions being £55,407.

11. Examination of the recent experience of the Main Fund indicated that minor amendments on the side of stringency were required in the basis used for the 1937 and 1942 valuations. These amendments have been made and the valuation results are as follows:—

Present value of—	£
Existing pensions	436,432
Prospective pensions	2,551,300
Existing widows' and orphans' allowances	84,952
Prospective death benefits	248,833
Existing and prospective incapacity allowances	48,811
Prospective refunds on withdrawals	207,974
	<hr/>
	£3,578,302
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Present value of—	£
Future contributions	681,405
Future State subsidies	162,526
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	£843,931
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LOCAL AUTHORITIES' SECTION

12. All Hospital Boards and other local authorities must contribute to the Fund on behalf of such of their employees who elect to become contributing employees. A contributing employee may elect at any time to give six months' notice of his intention to cease contributing.

The principal benefit is a pension, based on length of service and final salary, granted on retirement through ill health or after attainment of a specified age or after completion of a specified period of service.

Several changes were made in the scheme in 1947, the benefits now being as set out in Table II of the Appendix.

13. The contributions the Fund receives under the 1947 Standard Scheme are :—

(a) Each employee contributes a percentage of his salary in accordance with his age when he enters the Fund, as follows :—

Age at Entry.					Percentage of Salary.
Not over 30	..	..	..	..	5
Not over 35	..	..	..	..	6
Not over 40	..	..	..	..	7
Not over 45	..	..	..	..	8
Not over 50	..	..	..	..	9
Over 50	..	..	..	..	10

(b) His employer contributes a like amount.

(c) Contributions by both employee and employer attract a 25-per-cent. subsidy from the State.

14. The terms and conditions of the 1947 Standard Scheme apply to all entrants after that scheme was adopted ; existing contributors were given the option of remaining under the old conditions (which are set out in the report of the 1942 valuation) or of coming under the 1947 Standard Scheme.

At the valuation date the process of changing to the 1947 Standard Scheme was not complete, so that it was not known which employees would elect to remain under the old conditions. As the liability of the Fund in respect of any employee is greater on the average under the 1947 Standard Scheme than under the old conditions, it has been assumed that all employees will eventually come under the 1947 Standard Scheme.

15. At the valuation date the benefit payable to the widow of a contributing employee was £52 per annum ; in 1948 this was increased to £104 per annum. Considerable liability attaches to this increase in benefit, and it was thought advisable to bring the increased liability into account in the valuation by valuing both existing and prospective widows' pensions at the rate of £104 per annum.

At the valuation date contributions were being made to the Fund on account of 5,400 male and 4,669 female employees in receipt of annual salaries amounting to £3,317,728. Pensions amounting to £142,048 were payable to 685 male and 286 female retired employees, and 289 widows and 121 children were in receipt of allowances amounting to £18,129 per annum. The total contributions payable, excluding the State subsidy, amounted to £368,890 per annum.

16. All aspects of the recent experience of this section of the Fund were examined and from the experience suitable factors were deduced for valuing the Fund. The results of the valuation are as follows:—

Present value of—		£
Existing pensions	.. .. .	1,325,503
Prospective pensions	.. .. .	8,412,282
Existing widows' and orphans' allowances	.. .. .	363,523
Prospective death benefits	.. .. .	1,752,050
Prospective refunds on withdrawal	.. .. .	776,630
Total benefits		<u>£12,629,988</u>
Future contributions—		£
Employees	.. .. .	2,201,112
Employers	.. .. .	2,211,731
		4,412,843
Future State subsidies	.. .. .	1,076,734
Total		<u>£5,489,577</u>

17. The combined valuations disclose the following position for the Fund as a whole:—

VALUATION BALANCE-SHEET

	£		£
Present value of benefits—		Funds at 31st December, 1947	9,586,611
Main Fund	3,578,302	Present value of—	
Local Authorities' Section	12,629,988	Future contributions—	
		(i) Main Fund	681,405
		(ii) Local Authorities' Section	4,412,843
		Future State subsidies—	
		(i) Main Fund	162,526
		(ii) Local Authorities' Section	1,076,734
		Deficiency	288,171
	<u>£16,208,290</u>		<u>£16,208,290</u>

The valuation of the Fund made as at 31st December, 1942, disclosed a surplus of £558,801. The whole of this amount, plus the deficiency of £288,171 shown above, less £31,100 transferred to the Investment Fluctuation Account—*i.e.*, a net amount of £315,872—has been absorbed in passing from a 3½-per-cent. to a 3¼-per-cent. valuation basis and in enlarging benefits to contributors.

18. It is inferred from section 73 (2) of the National Provident Fund Act, 1926, that if a valuation of the Fund discloses a deficiency the Actuary is to report what additional sums are required by way of State subsidy during the five years following the valuation to prevent the position of the Fund deteriorating still further.

As stated in paragraph 14, in the absence of exact information it was assumed in valuing the Fund that all existing contributing employees would ultimately come under the 1947 Standard Scheme. There is, however, little doubt that many of them will prefer to remain under the old conditions, so that valuing them all as if the 1947 Standard Scheme applies has overstated the liability of the Fund. It is impossible to place a precise value on this overstatement, but it appears likely to be of the order of the deficiency disclosed by the valuation.

I have to report, therefore, that the deficiency does not call for additional subsidies.

S. BECKINGSALE, F.I.A., Government Actuary.

The National Provident Fund Board, Wellington.

APPENDIX

TABLE I—MEMBERSHIP AT SUCCESSIVE VALUATIONS

Valuation at 31st December.	Contributors.			Pensioners.		Other Beneficiaries.	
	Number.	Annual Contributions.	Annual Pensions.	Number.	Annual Pensions.	Number.	Annual Payments.
MAIN FUND							
		£	£		£		£
1913	5,791	22,798	173,864	..	..	..	..
1916	9,847	38,758	302,305	..	..	..	..
1919	15,022	58,551	464,767	..	..	106	2,067
1922	20,223	81,009	658,459	2	130	222	4,329
1925	23,075	88,002	732,946	8	572	330	6,435
1937	20,991	80,879	680,532	269	12,006	474	9,275
1942	17,912	70,130	599,548	612	25,329	394	7,710
1947	15,642	65,121	561,248	1,112	41,965	517	13,442
LOCAL AUTHORITIES' SECTION							
			Annual Salaries.				
1913 .. ..	..	..	..	..	..	..	..
1916 .. ..	..	..	..	..	..	..	..
1919	1,133	32,076	..	14	1,171	43	634
1922	1,895	58,439	..	87	7,038	82	1,251
1925	2,687	78,715	..	139	12,832	94	1,462
1937	7,981	191,406	..	547	63,386	241	3,893
1942	10,596	270,328	..	691	87,906	270	4,455
1947	10,069	368,890	3,317,728	971	142,048	410	18,129

TABLE II

The benefits granted under the 1947 Standard Scheme in the Local Authorities' Section are briefly as follows:—

- I. On retirement after attaining age sixty-five or after completing forty years' service and attaining age sixty (men), after attaining age sixty or after completing 30 years' service and attaining age fifty-five (women), or on earlier retirement through ill health—

A pension calculated for each year of service at the rate of one one-hundred-and-twentieth of the average salary for the last five years of service, increased by a like amount, subject to a maximum increase of £300 and a minimum of £3 15s. for each year of service.

- II. On death, whether before or after retiring—

(i) *Leaving Neither Widow Nor Children.*—A refund of all contributions paid by the employee, less any benefits received.

(ii) *Leaving a Widow.*—An allowance of £52 per annum during widowhood.

(iii) *Leaving Children.*—An allowance of 10s. per week on account of each child under the age of sixteen years. Where no widow's benefit is payable, a refund of all contributions paid by the employee, less benefits paid and payable in respect of children, is granted.

- III. On voluntary withdrawal from the Fund—

The contributions paid by the employee, less any benefits received are refunded.

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