

**REPORT BY THE GOVERNMENT ACTUARY ON THE FINANCIAL CONDITION OF THE HEALTH
INSURANCE FUND AS AT 31ST DECEMBER 1997**

**Presented to the States on 30th July 2002
by the Employment and Social Security Committee**



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HEALTH INSURANCE (JERSEY) LAW 1967

REPORT BY THE GOVERNMENT ACTUARY ON THE FINANCIAL CONDITION OF THE HEALTH INSURANCE FUND AS AT 31ST DECEMBER 1997

To the President and Members of the Social Security Committee of the States of Jersey -

Article 31(1) of the Health Insurance (Jersey) Law 1967 requires the actuary to review the operation of the Law at intervals not exceeding five years and to report to the Committee on the financial condition of the Health Insurance Fund and on the adequacy or otherwise of the contributions payable under the Law to support the prescribed benefits. As requested I have carried out a review as at 31st December 1997, covering the period of five financial years from 1st October 1992. I submit the following report which includes a projection for the Health Insurance Fund up to 31st December 2004.

Introduction

- 1.1 My previous review as at 30th September 1992 reported that expenditure on medical and pharmaceutical benefit had been held just within the available income from contributions and interest. The Fund had fallen to a level of about 4 months' expenditure. I recommended that the Fund should have a minimum balance of between 3 and 5 months' expenditure in order to allow for uncertainties.
- 1.2 However, in 1992-93, the balance in the Fund dropped to a level of about 3 months' expenditure. The contribution rate was therefore increased from 1.5% to 2% from January 1994. This enabled the Fund to increase slowly in relation to benefit expenditure throughout the rest of the quinquennium, in spite of part of the contribution increase being used to finance 60 per cent of the expenditure in respect of Health Insurance Exceptions (H.I.E.s) and all of the expenditure on gluten free food vouchers. By the end of the quinquennium (December 1997), the Fund was equivalent to about 6 months' expenditure. By December 2000, it had increased further, to around 15 months' average expenditure.
- 1.3 The Committee's policy is now that, in order to provide sufficient time to give appropriate notice to employers of any required changes to the contribution rate, it is reasonable to aim for the Fund to be about 12 months' expenditure.
- 1.4 The contribution income has been relatively buoyant in recent years and provided there are no sudden changes in the economy or in the relative levels of benefits and earnings, it is likely that the Fund will continue to grow for the period up to December 2004.

Transactions of the Health Insurance Fund in the period from 1st October 1992 to 31st December 1997

- 2.1 The transactions of the Health Insurance Fund in the period under review and in the immediately preceding year are summarized in Table 1. The 1996-97 financial year covered a 15-month period ending on 31st December 1997. The ratios shown in the final column of Table 1 giving the increase between 1991-92 and 1996-97 take account of the extra length of the final financial year.

Table 1. Income and outgo of the Health Insurance Fund in the period 1st October 1991 to 31st December 1997

(£ thousands)

	1991-2	1992-3	1993-4 [1]	1994-5	1995-6	1996-7 [2]	96-97 [3] 91-92
Fund at 1st October	2,437	2,245	1,839	2,643	3,808	5,207	
Contributions - Allocated to Health Insurance Fund	7,828	8,003	9,796	10,478	12,635	15,154	1.55
Contributions - Allocated to H.I.E.			837	1,258	1,258	1,603	
<i>Total Contribution Income</i>	<i>7,828</i>	<i>8,003</i>	<i>10,634</i>	<i>11,736</i>	<i>12,635</i>	<i>16,757</i>	<i>1.71</i> ³
States of Jersey Vote (H.I.E.)	1,610	1,817	1,062	838	839	1,069	
Interest Income	176	103	83	180	210	415	
Total Income	9,613	9,922	11,778	12,754	13,684	18,241	
Expenditure financed from contributions							
Medical Benefit	3,146	3,103	3,295	3,274	3,475	4,834	1.23
Pharmaceutical Benefit	4,609	4,729	5,047	5,484	6,020	7,939	1.38
Gluten Free Food Vouchers			35	49	51	70	
Medical Benefit (H.I.E.)			402	608	557	709	
Pharmaceutical Benefit (H.I.E.)			435	649	702	895	
Administration	440	680	697	687	641	845	1.54
<i>Total expenditure financed by contributions</i>	<i>8,195</i>	<i>8,512</i>	<i>9,912</i>	<i>10,752</i>	<i>11,445</i>	<i>15,291</i>	<i>1.49</i>
Expenditure financed by States of Jersey Vote							
Medical Benefit	830	923	510	406	371	473	1.42
Pharmaceutical Benefit	780	894	552	433	468	596	1.91
<i>Expenditure financed by States</i>	<i>1,610</i>	<i>1,817</i>	<i>1,062</i>	<i>838</i>	<i>839</i>	<i>1,069</i>	<i>0.53</i>
Total Fund Expenditure	9,805	10,329	10,973	11,590	12,284	16,360	1.33

Excess of income over outgo	-192	-407	805	1,164	1,400	1,881
Fund at 30th September [5]	2,245	1,839	2,643	3,808	5,207	7,088 ⁵
Mean fund/expenditure in terms of weeks [6]	19	12	12	16	20	26

- 2.2 The annual total contribution income increased by more than 70% per cent over the five years as a result of the combined effect of the increase in the contribution rate from 1.5% to 2% in January 1994, increases in the general level of earnings and a rise in the number of contributors. Between 1991-92 and 1996-97 the numbers contributing increased on average by over 1 per cent a year. Compared with contribution income, expenditure on medical benefit rose at the much lower rate of just over 20 per cent, mainly due to the very small increase in the rate of medical benefit in the first part of the quinquennium, which was in turn due to the low level of the Fund at that time. Expenditure on pharmaceutical benefit increased rather faster, by just under 40 per cent. Expenditure exceeded income in the year 1992-93, but the position was reversed in 1993-94 following the contribution increase and continued to improve thereafter.
- 2.3 The mean balance in the Fund during 1996-97 represented about 26 weeks' expenditure in that year, or 24 weeks' expenditure including benefits payable to H.I.E.s. This is a significant improvement on the position in 1992-93, when the mean balance represented only 12 weeks' expenditure (excluding H.I.E.s). The mean balance at December 1997 was slightly higher than I recommended in my past report, but still lower than the target balance agreed by the States' Employment and Social Security Committee. Since that date, the mean balance has increased substantially as contribution income has been particularly buoyant and substantial surpluses have been generated.
- 2.4 The number of people covered for benefits grew over the 5-year period under review: a very small increase of about 0.5 per cent in Ordinary members and a much higher increase of 16 per cent in the number of individuals with H.I.E. status. Detailed figures on the numbers covered are shown in Table 2. Since the end of the quinquennium, the number of Ordinary members has increased at a slightly faster rate than during the quinquennium, whilst the number of H.I.E.s has fallen.
- 2.5 The number of claims for medical benefit increased at a significantly faster rate than the increase in the number of Ordinary members, whereas medical benefit claims from H.I.E.s increased at a slower rate than the increase in the number of H.I.E.s. The number of claims for pharmaceutical benefit from H.I.E.s increased in line with the change in the number of H.I.E.s but, for Ordinary members, it increased at a much faster rate than the modest rise in the membership.

Table 2. Number of persons in the scheme at the mid-point of each year (mid 1997 for the 1996-97 financial year) from 1st October 1991 to 31st December 1997

Year	Ordinary Members	Health Insurance Exceptions (H.I.E.s)
1991-92	80,830	3,370
1992-93	80,742	3,578
1993-94	80,691	3,709
1994-95	80,679	3,821
1995-96	81,264	3,886
1996-97	81,225	3,925
Ratio of 96-97/91-92	1.005	1.16

Analysis of medical benefits paid

Medical benefit is payable from the Health Insurance Fund when an Ordinary member consults his or her general medical practitioner. The amount of benefit per consultation is fixed each year by the States. In 1991-92 the medical benefit payable (£8.80) represented 49 per cent of the average charge for a surgery consultation. By

1996-97 the level of medical benefit had increased to £10.00, representing 47 per cent of the average charge for surgery consultation in that year. It has subsequently (October 1999) been increased to £10.50 per consultation.

- 3.2 For those on low incomes who are granted H.I.E. status, a fixed scale of charges is agreed each year for medical services of different kinds. The Fund now meets 60 per cent of these charges and is subsequently reimbursed by the States out of general revenue for the balance of the cost.
- 3.3 A summary of the medical benefit levels and average charges over the period 1991-92 to 1996-97 is given in Table 3.

Table 3. Medical benefits and doctors' basic charges in the period 1st October 1991 to 31st December 1997

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Year	Ordinary Members		Health Insurance Exceptions (H.I.E.s)
	Average charge for surgery visit	Medical benefit	Average charge for surgery visit
1991-92	18.00	8.80	17.33
1992-93	18.84	8.80	18.96
1993-94	19.25	9.00	17.43
1994-95	19.54	9.00	18.44
1995-96	20.86	9.50	18.32
1996-97	21.27	10.00	18.41
96-97/91-92	1.18	1.14	1.06

3.4 Table 4 shows the number of occasions on which Ordinary members have consulted their doctors in recent years resulting in a claim on the Fund, and the average number of such consultations per person covered by the scheme. The corresponding figures are also given for medical consultations by H.I.E.s.

Table 4. Number of medical attendances in the financial years 1st October 1991 to 31st December 1997

Financial Year	Ordinary Members		Health Insurance Exceptions (H.I.E.s)	
	Number of attendances	Number per person covered	Number of attendances	Number per person covered
1991-92	357,474	4.42	47,874	14.21
1992-93	352,640	4.37	48,676	13.60
1993-94	364,776	4.52	52,313	14.10
1994-95	365,730	4.53	54,973	14.39
1995-96	366,988	4.52	50,616	13.03
1996-97 ^[7]	383,404	4.72	51,351	13.08
96-97/91-92	1.07	1.07	1.07	0.92

3.5 The number of attendances by Ordinary members and by H.I.E.s each rose by 7 per cent over the five years. For Ordinary members, this is a significantly higher rate of increase than is implied by the increase in the numbers covered, with much of the increase taking place in 1997. For H.I.E.s, the increase in attendances was less than the increase in the number of H.I.E.s, reflecting a reversal of the previous upward trend in the number of attendances per H.I.E.

Analysis of pharmaceutical benefits paid

4.1 Pharmaceutical benefit is payable when a general medical practitioner prescribes medicines or drugs, provided that they are from an approved list of such preparations. For a person covered by the scheme, the Fund meets the cost, subject to a prescription charge payable by Ordinary members. This is a fixed charge per item. Table 5 shows the total number of items prescribed year by year for Ordinary members and H.I.E.s separately, and the average number of items per person each year in the two categories.

Table 5. Number of prescription items in the period 1st October 1991 to 31st December 1997

Year	Ordinary Members			Health Insurance Exceptions (H.I.E.s)		
	Total number of items	Average number per person	Number of items per doctor's visit	Total number of items	Average number per person	Number of items per doctor's visit
1991-92	725,526	8.98	2.03	116,942	34.70	2.44
1992-93	735,605	9.11	2.09	124,005	34.66	2.55
1993-94	761,586	9.44	2.09	129,892	35.02	2.48
1994-95	775,448	9.61	2.12	135,757	35.53	2.47
1995-96	802,196	9.87	2.19	134,785	34.68	2.66
1996-97 ^[8]	821,541	10.11	2.14	137,978	35.15	2.69
96-97/91-92	1.13	1.13		1.18	1.01	

4.2 The total number of prescription items increased from 842,000 in 1991-92 to 960,000 in 1997, an increase of 14 per cent. The number of prescription items rose by 13 per cent over the five-year period for Ordinary members and by 18 per cent for H.I.E.s. I assumed in my previous review that the number of prescriptions would roughly follow the change in the number of members (i.e. the number per member would remain stable). This has been broadly borne out for the H.I.E.s, but for the Ordinary members the number of prescription items per member has risen by an

average of 2.4 per cent a year.

4.3 Since December 1997, the average number of items per Ordinary member has continued to rise, and furthermore the average for H.I.E.s has also started to increase, a change from the stable rate during the quinquennium under review.

4.4 Table 6 shows, for each year from 1991-92 to 1996-97, the average total cost per item, including remuneration of suppliers, and the fixed prescription charge paid for each item by Ordinary members. The prescription charge for Ordinary members has subsequently (October 1999) been increased to £1.80 per item.

Table 6. Prescription costs in the period 1st October 1991 to 31st December 1997

Year	All members	Ordinary Members		Health Insurance Exceptions (H.I.E.s)
	Average total gross cost per item	Average total gross cost per item	Prescription Charge	Average total gross cost per item
	£	£	£	£
1991-92	7.17	7.25	0.90	6.67
1992-93	7.48	7.63	1.20	7.21
1993-94	8.05	8.13	1.50	7.60
1994-95	8.48	8.57	1.50	7.97
1995-96	8.96	9.00	1.50	8.68
1996-97	9.31	9.42	1.65	8.68
96-97/91-92	1.30	1.30	1.83	1.30

4.5 The average total cost per item for both Ordinary members and H.I.E.s has increased by 30 per cent in the past 5 years. The prescription charge paid by Ordinary members represented 12 per cent of the average total cost per item in 1991-92. It rose to 16 per cent in 1992-93, when the prescription charge was increased by £0.30, rising to 18 per cent in 1993-94 when the prescription charge was increased again. The percentage fell in 1994-95 and 1995-96 since no increase to the charge was made in those years. The charge increased to £1.65 in 1996-97, which was again 18% of the gross cost.

Estimated future income and expenditure

5.1 Income in the future will be determined by the numbers contributing to the scheme and the earnings on which contributions are levied. Expenditure will depend upon the numbers in the population, on the proportion of them who claim benefit, the frequency with which they do so and the amount of benefit paid in each case. I have provided estimates of future income and expenditure for the period up to and including 2004 ("the projection period"). Actual data on contributions and expenditure is available up to 2000 and therefore the figures for 2000 have been used as the base for the projections.

5.2 Over the five years under review, the rate of increase in the Jersey cost of living index has averaged just over 3.5 per cent a year. This is significantly lower than the rate of 5.5 per cent a year assumed in my previous report. In general, inflation expectations in the short term are lower now than they have been in the past 20 years and I have decided to assume that the increases in the cost of living index will be 4 per cent a year for the remainder of the projection period. This affects the costs and charges where it is assumed that the level would change in line with this Index, details of which are given in paragraph 5.5 below. Over the 5 year review period, the increases in average earnings are estimated to have averaged just over 5 per cent a year, some 1.5 per cent a year higher than the increases in prices. Although the gap varies from year to year, I consider this difference to be reasonable for the average over the projection period and have therefore assumed that the increase in earnings will be 1.5 per cent a year greater than the increase in prices for each year.

5.3 Recent population projections made for Jersey indicate that the total population will grow only slightly over the next few years. As the number of Ordinary members increased slowly during the last 5 years, broadly in line with population trends, I have assumed that this trend would continue and the number of Ordinary members will continue to increase in future, in line with the change in the total population.

- 5.4 The proportion of the population over pension age is expected to increase slowly in the near future, with the highest rate of increase being at the oldest ages. However, in view of the recent fall in the number of H.I.E.s after the increase during the quinquennium under review, I have assumed that the number of H.I.E. members will remain unchanged at the 2000 level for the remainder of the projection period.
- 5.5 The following assumptions have been made about the rates of claim and their costs -
- (i) The number of medical consultations per member will remain constant at their 2000 levels for both Ordinary members and H.I.E.s (4.68 and 12.63 respectively).
 - (ii) The medical benefit will increase from its 2000 level in line with the cost of living index.
 - (iii) The average number of prescription items for each Ordinary member will increase from the 2000 level (10.53) at the rate of 2.4 per cent a year, the average rate of increase over the five years under review. For H.I.E.s, it was assumed that the average number of items per member would remain constant at the 2000 level (38.26).
 - (iv) The medicine cost per item prescribed for both Ordinary members and H.I.E.s (including the dispensing fee and net of the purchase discount) will rise in line with the cost of living index.
 - (v) Prescription charges will increase from its 2000 level in line with the cost of living index.
 - (vi) Expenditure on gluten free food vouchers is assumed to grow at 5 per cent a year, slightly more than the increase in prices and the membership. This is intended to make some allowance for a continuation in the rise in expenditure on this benefit since its introduction in 1993-94.
- 5.6 The costs of administration comprise mainly the costs of staff and services, both of which are related to the general movement in earnings. I have therefore assumed that the costs will increase in future in line with the above assumption for average earnings increases.
- 5.7 In view of the increasing size of the Fund, the level of investment income earned in future is an increasingly important factor affecting the future progress of the Fund. The Fund is currently invested in bank deposits to ensure adequate liquidity. For these projections, I have assumed that this policy will continue and result in an average rate of investment return of 4.75 per cent a year, midway between the rates of increase in consumer prices and average earnings.
- 5.8 Estimates of income and outgo for the period up to 31st December 2004 are shown in Table 7. It will be seen that on the basis of the above assumptions, income is projected to exceed expenditure by an increasing margin and as a result the Fund is projected to increase substantially up to the end of the projection period.
- 5.9 The impact on the projection results of varying some of the main assumptions is set out in section 6 below.

Sensitivity analysis

- 6.1 The results of the projection of future income and outgo of the Health Insurance Fund are dependent on the assumptions made. Some of the assumptions relate to factors over which control can be exercised, such as the future level of medical benefit and prescription charges. However most, and in particular the level of contribution income, depend on external factors such as the level of economic activity and movements in the general level of earnings.
- 6.2 In order to study the sensitivity of the results to the different assumptions, Table 8 shows how the projected size of the Fund, expressed in terms of weeks of expenditure (as given in Table 7), would increase or decrease as a result of changing various key assumptions. For clarity, each change has been considered independently, although in practice they might be combined. For scenarios (ii) and (iii) (higher and lower price rises) it has been assumed that there would be no change to the level of earnings increases.

Table 8. Estimated change in the amount of the Fund projected in Table 7, expressed in terms of weeks of expenditure resulting from varying key assumptions

		(weeks)			
		2001	2002	2003	2004
(i)	Earnings increases 1% a year lower than assumed	0	-1	-2	-4
(ii)	Price rises 5% a year (1% higher than assumed)	-1	-2	-5	-7
(iii)	Price rises 3% a year (1% lower than assumed)	1	2	5	8
(iv)	Number of contributors are 1% lower from 2001	0	-1	-3	-5
(v)	Prescriptions per Ordinary member increase by extra 1% a year.	-1	-1	-3	-5
(vi)	Prescriptions per Ordinary member increase by extra 3% a year.	-2	-4	-8	-13
(vii)	Net medicine cost per item increases by an extra 2% a year	-1	-3	-6	-9

- 6.3 Table 7 shows that the Fund is projected to be 105 weeks' (just over 2 years') expenditure by the end of the 2004 financial year. The figures in Table 8 show that, even if rather more pessimistic assumptions were made about future contribution income and benefit expenditure, the level of the Fund would still be highly satisfactory.

Summary and conclusion

- 7.1 At the time of the previous review as at 30th September 1992 the Fund was in a poor financial position. This led the Committee to increase prescription charges substantially in 1992 and 1993. More importantly from the overall financial point of view, the contribution rate was increased from 1.5 per cent to 2 per cent in 1993. Although a relatively small increase in absolute terms, this represented a one third increase in the contribution rate. At the same time the Fund also became responsible for financing 60 per cent of the expenditure in respect of H.I.E.s, and for all expenditure on gluten-free food vouchers. The net effect has been a very significant improvement by 1997 in the financial position of the Fund. The position has continued to improve up to the end of 2000.
- 7.2 Since the last review, the Committee has decided that the financial objective of the Fund is to aim for it to represent between eight and twelve months' expenditure. It is already estimated to be in excess of this range. The projected progress of the Fund up to 2004, based on the main set of assumptions, is shown in Table 7 in section 5. On these assumptions, the Fund is expected to increase to about two years' benefit expenditure in 2004.
- 7.3 The projection is based on the assumption that most items of expenditure will move in line with consumer price inflation. On this basis, the financial position of the Fund is sound. It is however important to consider the impact on the Fund, in the short and medium term, of any higher increases in expenditure or any new forms of expenditure. The effect of adopting different assumptions is shown in Table 8 in section 6.
- 7.4 Data was not available to enable me to model the impact of ageing on the Fund's finances. However, it is likely that, as the population of Jersey ages, benefit expenditure will tend to increase relative to contribution income. I recommend that the Committee should examine the medium to long term impact of ageing on the Fund's finances. This might be done as part of the next formal actuarial review of the Fund which is due as at 31st December 2002.

7.5 A review should also be made of the future investment policy of the Fund. At present the Fund is entirely invested in bank deposits. When the balance in the Fund was low relative to the annual expenditure, it was important that it was invested in highly secure and liquid investments to provide a suitable level of security against adverse changes in the levels of income or expenditure. As the Fund is now well above what is regarded as its minimum level, consideration should be given to alternative investments which might increase the level of investment return. It is of course vital that the importance of security of the investments is taken fully into account in any such review.

C.D. Daykin
Government Actuary
18th June 2002

Table 7. Estimated income and outgo of the Health Insurance Fund in the period 1st January 1998 to 31st December 2004

(£ thousands)

	1996-7 [9] [10]	1998 ¹⁰	1999 ¹⁰	2000 ¹⁰	2001	2002	2003	2004
Fund at start of year	5,207	7,088	10,111	13,564	17,663	22,058	26,882	32,164
Contributions - Allocated to Health Insurance Fund	15,154	13,556	14,935	15,755	16,696	17,694	18,750	19,868
Contributions - Allocated to H.I.E.	1,603	1,334	1,367	1,377	1,432	1,489	1,549	1,611
<i>Total Contribution Income</i>	<i>16,757</i>	<i>14,890</i>	<i>16,301</i>	<i>17,132</i>	<i>18,128</i>	<i>19,183</i>	<i>20,299</i>	<i>21,479</i>
States of Jersey Vote (H.I.E.)	1,069	889	911	918	955	993	1,033	1,074
Interest Income	415	494	549	828	921	1,135	1,370	1,626
Total Income	18,241	16,273	17,762	18,878	20,005	21,311	22,701	24,180
Expenditure financed from Contributions								
Medical Benefit	4,834	3,790	3,847	4,079	4,255	4,438	4,630	4,829
Pharmaceutical Benefit	7,939	6,595	7,462	7,637	8,157	8,713	9,307	9,942
Gluten Free Food Vouchers	70	69	74	82	86	90	95	100
Medical Benefit (H.I.E.)	709	584	587	567	590	613	638	663
Pharmaceutical Benefit (H.I.E.)	895	750	780	810	842	876	911	948
Administration	845	573	648	686	724	764	806	850
<i>Total expenditure financed by contributions</i>	<i>15,291</i>	<i>12,361</i>	<i>13,398</i>	<i>13,861</i>	<i>14,654</i>	<i>15,495</i>	<i>16,386</i>	<i>17,331</i>
Expenditure financed by States of Jersey Vote								
Medical Benefit	473	389	391	378	393	409	425	442
Pharmaceutical Benefit	596	500	520	540	562	584	607	632
<i>Total expenditure financed by States</i>	<i>1,069</i>	<i>889</i>	<i>911</i>	<i>918</i>	<i>955</i>	<i>993</i>	<i>1,033</i>	<i>1,074</i>
Total Fund Expenditure	16,360	13,250	14,309	14,779	15,609	16,488	17,419	18,405
Excess of Income over outgo	1,881	3,023	3,453	4,099	4,396	4,823	5,282	5,774
Fund at year end	7,088	10,111	13,564	17,663	22,058	26,882	32,164	37,938
Ratio of mean fund/expenditure in [11]	26	36	46	59	70	82	94	105

[1] From 1st January 1994, there was an increase in the rate of health contributions from 1.5% to 2% of earnings. 60% of the H.I.E. expenditure and the whole of spending on gluten free food vouchers is paid from the increased contribution rate.

[2] The Health Insurance Fund in 1996-97 had a fifteen-month financial period ending on 31st December 1997.

[3] The ratios in this column are calculated using the equivalent 12-month contribution or expenditure figures for 1996-97. The ratio for total contribution income would have been 1.28 if the contribution rate had not been increased from 1.5% to 2%.

[4] The growth rate is based on the total expenditure financed by contributions and the States Vote.

[5] The final Fund value is as at 31st December 1997.

[6] The figures are based on the total expenditure financed by contributions.

[7] Figures for 1997 calendar year.

[8] Figures for 1997 calendar year.

[9] The Health Insurance Fund in 1996-97 had a fifteen-month period ending 31st December 1997.

[10] The figures up to and including 2000 are actual amounts taken from the Fund accounts.

[11] The figures are based on the expenditure financed by contributions.