

PART I

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EXPLANATORY NOTES*

Section A: General Issues

Purpose of Tables

1. The aim of these tables is to provide an aid to both judiciary and practitioners in assessing the appropriate lump sum as the compensation for post-trial pecuniary loss or consequential expense, such as cost of care, in personal injury and fatal accident cases. Under the common law system of compensation in such cases, awards are made on a "one-time" assessment of a lump sum which, invested at a given rate of interest, will yield an income stream sufficient to compensate the victim for both loss and expense for the period of time over which it is anticipated that such loss will have to be made good and such expenditure met. The system is based upon the selection of an appropriate multiplier applied to the relevant multiplicand. The multiplicands will represent the annual loss of income or the annual cost of expenditure as determined by the courts.

Application of Tables

2. The tables set out the possible multipliers to be applied to the multiplicands so determined. These multipliers enable the user to assess the present capital value of future annual loss, or annual expense calculated on the basis of various assumptions which are explained below. Accordingly, to find the present capital value of a given annual loss or expense, it is necessary first to select the appropriate table, find the appropriate multiplier and then multiply the amount of the annual loss or expense by that figure.
3. Tables 1 to 26 deal with annual loss or annual expense extending over three different periods of time. In each case there are separate tables for men and women.
 - In Tables 1 and 2 the loss or expense is assumed to begin immediately and to continue for the whole of the rest of the claimant's life, allowing for different potential lifespans, including the possibility of early death or prolonged life. The tables apply to both the deceased and the dependants' lives in fatal accident cases.
 - In Tables 3 to 14 the loss or expense is assumed to begin immediately but to continue only until the claimant's retirement or earlier death. The age of retirement is assumed to be 50 (Tables 3 and 4), 55 (Tables 5 and 6), 60 (Tables 7 and 8), 65 (Tables 9 and 10), 70 (Tables 11 and 12), and 75 (Tables 13 and 14).
 - In Tables 15 to 26, it is assumed that the annual loss or annual expense will not begin until the claimant reaches retirement but will then continue for the whole of the rest of his or her life. In Table 19 (males) and Table 20 (females) the age of retirement is assumed to be 60. In Table 21 (males) and Table 22 (females) the age of retirement is assumed to be 65 (and similarly for retirement ages 50, 55, 70 and 75). These tables all make due allowance for the chance that the claimant may not live to reach the age of retirement.
4. On the basis of some reported cases, it appears that tables for pecuniary loss for life, e.g. cost of care, may have been misunderstood. The tables do not assume that the claimant dies after a period equating to the expectation of life, but take account of the possibilities that the claimant will live for different periods, e.g. die soon or live to be very old. The mortality assumptions relate to the general population of Hong Kong. Unless there is clear evidence in an individual case to support the view that the individual is atypical and will enjoy longer or shorter expectation of life, no further increase or reduction is required for mortality alone.
5. Failure to have regard to current and reasonable projected future improvements in mortality rates will result in awards of damages which are lower than they should be. According to the *Hong Kong Population Projections 2015–2064* (p.54, Table 13) published by the Census and Statistics Department of the Hong Kong Government,

* The Explanatory Notes here are based on the Explanatory Notes of the Ogden Tables used in the United Kingdom with substantial modification to reflect the local circumstances in Hong Kong. The Explanatory Notes of the Ogden Tables were prepared by Dr Christopher Daykin, the former UK Government Actuary. Interested readers wishing to consult the latest version of the Ogden Tables may read *Facts and Figures 2015/16: Tables for the Calculation of Damages*, Robin de Wilde QC (ed), (London: Sweet & Maxwell, 2015).

the life expectancy of the population of Hong Kong increased steadily between 1994 and 2014, and the trend is expected to continue over the next five decades.

6. The indices on which the table of Hong Kong age-sex specific mortality rates (1994–2014) are based, point to the conclusion that, on the balance of probabilities, the mortality rates which will actually be experienced in future by those who are alive today will be significantly lower than the historic mortality rates. It follows that there will have to be higher multipliers to reflect actuality.
7. The Hong Kong Government makes a prudent estimate of the extent of future improvements in mortality. The latest estimate of future mortality rates, produced by the Census and Statistics Department, are documented in *Table E483: Projected Hong Kong Life Tables, 2016–2064* (Downloaded from <http://www.censtatd.gov.hk/hkstat/sub/sp190.jsp?productCode=D5320183> on 28th February 2016). Tables 1 to 26 show the multipliers which result from the application of these projected mortality rates. Judges in the English Courts are now using tables based on projected mortality rates. For these reasons, it is recommended that the Courts in Hong Kong also use multiplier tables based on an estimate of the extent of future Hong Kong improvements in mortality. Analogous to the current edition of the UK Ogden Tables, multipliers based on purely historic mortality rates are no longer published in this book.

Use of Tables

8. To find the appropriate figure for the particular value of a specific loss or expense, the user must first choose that table which relates to the period of loss or expense for which the individual claimant is to be compensated and to the sex of the claimant, or, where appropriate, the claimant's dependants.
9. If, for some reason, the facts in a particular case do not correspond with the assumptions on which one of the tables is based (e.g. it is known that the claimant will have a different retiring age from that assumed in the tables), then the tables can only be used if an appropriate allowance is made for this difference; for this purpose, the assistance of an actuary should be sought, except for situations where specific guidance is given in these explanatory notes.

Discount Rate

10. The basis of the multipliers set out in the tables is that the lump sum will be invested and yield income, but that over the period in question the claimant will gradually reduce the capital sum, so that at the end of the period the capital sum is exhausted. Accordingly, an essential factor in arriving at the right figure is to choose the appropriate discount rate. The tables set out multipliers based on annual rates of return ranging from –2% to +5%.
11. The 0% column can be used to show the multiplier without any discount for interest (i.e. expectations of life, or the equivalent for different periods). These are used in the calculation of multipliers in fatal accident cases (see Section C).
12. In *Chan Pak Ting (No.2)* [2013] 1 HKLRD 1, Bharwaney J. departed from the conventional discount rate of 4.5% per annum (set by the House of Lords in *Cookson v Knowles* [1979] AC 556 at, 577A; endorsed by the Hong Kong Court of Appeal in *Chan Pui Ki* [1996] 2 HKLR 401. Having examined Hong Kong's economic evidence, he set 3 different discount rates, reflecting the investment choices of each class of investors as driven by their specific needs and goals.
13. For needs exceeding 10 years, the court set a discount rate of 2.5% per annum by taking an “average” portfolio of: (1) 10% in time deposits; (2) 70% in high quality bonds; and (3) 20% in high quality blue-chips stock.
14. For needs extending beyond 5 years but not exceeding 10 years, the court set a discount rate of 1% per annum (15% in time deposits and 85% in Hong Kong Government Exchange Fund Notes and high quality bonds). For needs not exceeding 5 years, a negative discount rate of –0.5% per annum was set (20% in time deposits and 80% in HK Government Exchange Fund Notes), following the Privy Council's decision in *Simon v Helmot* [2012] Med. L.R. 394 (an appeal from the Guernsey Court of Appeal) that there was nothing wrong in principle to set a negative discount rate.
15. Lord Hope of the Privy Council in *Simon v Helmot* noted that in Guernsey, there was a significant difference (2%) between the price inflation (concerning future expenses) and wage inflation (for loss of earnings until the

retirement age). To reflect the differentiation, he adopted 0.5% as the discount rate for non-earnings related losses, and applied -1.5% for earnings-related losses, for the reason that wage inflation was substantially higher than price inflation. In *Chan Pak Ting (No.2)*, the economic data of Hong Kong shows that the difference between price inflation and wage inflation (from 2001 to 2012) was only 0.4%, which was not substantial enough to justify separate discount rates for earnings-related and non-earnings related losses.

Different Retirement Ages

16. In paragraph 9 above, reference was made to the problem that will arise when the claimant's retiring age is different from that assumed in the tables. Such a problem may arise in valuing a loss or expense beginning immediately but ending at retirement; or in valuing a loss or expense which will not begin until the claimant reaches retirement but will then continue until death. Tables are provided for retirement ages of 50, 55, 60, 65, 70 and 75. Where the claimant's actual retiring age would have been between two of these retirement ages for which tables are provided, the correct multiplier can be obtained by consideration of the tables for retirement age immediately above and below the actual retirement age, keeping the period to retirement age the same. Thus a woman of 42 who would have retired at 58 can be considered as being in between the cases of a woman of 39 with a retirement age of 55 and a woman of 44 with a retirement age of 60. The steps to take are as follows:
- (1) Determine between which retirement ages, for which tables are provided, the claimant's actual retirement age R lies. Let the lower of these ages be A and the higher be B.
 - (2) Determine how many years must be subtracted from the claimant's actual retirement age to get A and subtract that period from the claimant's age. If the claimant's age is X, the result of this calculation is $(X+A-R)$.
 - (3) Look up this new reduced age in the Table corresponding to retirement age A at the appropriate discount rate. Let the resulting multiplier be M.
 - (4) Determine how many years must be added to the claimant's actual retirement age to get to B and add that period to the claimant's age. The result of this calculation is $(X+B-R)$.
 - (5) Look up this new increased age in the Table corresponding to retirement age B at the appropriate discount rate. Let the resulting multiplier be N.
 - (6) Interpolate between M and N. In other words, calculate: $(B-R) \times M + (R-A) \times N$ and divide the result by 5.
17. In the example given in paragraph 16, the steps would be as follows:
- (1) A is 55 and B is 60.
 - (2) Subtracting 3 years from the claimant's age gives 39.
 - (3) Looking up age 39 in Table 6 (for retirement age 55) gives 13.15 at a discount rate of 2.5%.
 - (4) Adding 2 years to the claimant's age gives 44.
 - (5) Looking up age 44 in Table 8 (for retirement age 60) gives 13.10 at a discount rate of 2.5%.
 - (6) Calculating $2 \times 13.15 + 3 \times 13.10$ and dividing by 5 gives 13.12 as the multiplier.
18. If the claimant's actual retiring age would have been earlier than 50 (but not less than 45), he or she may be treated as correspondingly older than his or her true age, but keeping the same period to retirement age. Thus a woman of 37 who would have retired at 47 is treated as though she were 40 and retiring at 50. The appropriate multiplier is then obtained from Table 4. A further correction should then in principle be made, because the claimant's chances of survival for ten years are slightly greater at 37 than if she were in fact 40. The effect of this, however, would be small for retirement ages down to 45.

19. When the loss or expense to be valued is that from the date of retirement to death, and the claimant's date of retirement differs from that assumed in the tables, a different approach is necessary, involving the following three steps.
- (1) Assume that there is a present loss which will continue for the rest of the claimant's life and from Table 1 or 2 establish the value of that loss or expense over the whole period from the date of assessment until the claimant's death.
 - (2) Establish the value of such loss or expense over the period from the date of assessment until the claimant's expected date of retirement following the procedure explained in paragraphs 16 to 18 above.
 - (3) Subtract the second figure from the first. The balance remaining represents the present value of the claimant's loss or expense between retirement and death.
20. The adjustments for retirement ages below 50 and above 75 cannot be applied reliably for retirement ages of less than 45 or more than 80. In such rare cases, the advice of an actuary should be sought.

Younger Ages

21. Tables 1 and 2 which concern pecuniary loss for life, and Tables 15 to 26, which concern loss of pension from retirement age, have been extended down to age 0. In some circumstances the multiplier at age 0 is slightly lower than that at age 1. This arises because of the relatively high incidence of deaths immediately after birth.

Loss of Earnings and Discounting for Early Receipt

22. Tables 3 to 14 are the tables for multipliers for loss of earnings. In order to determine the multiplier for loss of earnings for someone who has not yet started work, it is first necessary to determine an assumed age at which the claimant would have commenced work and to find the appropriate multiplier for that age from Tables 3 to 14 according to the assumed retirement age. This multiplier should then be multiplied by the deferment factor from Table 27 which corresponds to the appropriate discount rate and the period from the date of the trial to the date on which it is assumed that the claimant would have started work. A similar approach can be used for determining a multiplier for pecuniary loss for life where the loss is assumed to commence a fixed period of years from the date of the trial. For simplicity the factors in Table 27 relate purely to the impact of compound interest and ignore mortality.

Contingencies

23. Tables 1 to 26 have been calculated to take into account the chances that the claimant will live for different periods, including the possibility that they will die young or live to be very old, based on the reasonable provision for the levels of mortality which members of the population of Hong Kong alive today may expect to experience in future. Tables do not take account of the other risks and vicissitudes of life, such as the possibility that the claimant would for periods have ceased to earn due to ill health or loss of employment. Nor do they take account of the fact that many people cease work for substantial periods to care for children or other dependants. Allowance may be made to the multipliers for loss of earnings, to allow for certain risks other than mortality. The extent to which the multiplier needs to be reduced will reflect individual circumstances such as occupation. Reductions may be expected to be smaller for clerical workers than for manual workers, and for those in "secure" jobs and in occupations less affected by redundancy.

Impaired Lives

24. In some cases, medical evidence may be available which asserts that a claimant's health impairments have the effect of accelerating the ageing process, requiring that the claimant be treated as older than his actual physical years and adding a certain number of years to his current age. Alternatively, the medical evidence may require treating the individual as having a specific age different from his or her actual age. In such cases, Tables 1 and 2 can be used with respect to the deemed higher age. For the other tables the adjustment is not so straightforward, as adjusting the age will also affect the assumed retirement age, but the procedures described in paragraphs 16 to 20 may be followed, or the advice of an actuary should be sought.

Fixed Period

25. In cases where pecuniary loss is to be valued for a fixed period, the multipliers in Table 28 may be used. These make no allowance for mortality or any other contingency, but assume that regular frequent payments (e.g. weekly or monthly) will continue throughout the period. In principle, these figures should be adjusted if the periodicity

of payment is less frequent, especially if the payments in question are annually in advance or in arrears. Again, actuarial advice may be necessary.

Variable Loss or Expense

26. The tables do not provide an immediate answer when the annual loss or expense to be valued is not assumed to be stable; where, for instance, the claimant's lost earnings were on a sliding scale or promotion was likely to be achieved. One method of using the tables is to deal with such situations by increasing the basic figure of annual loss or expenses, in other words by modifying the multiplicand; or by choosing a lower rate of interest and so a higher multiplier than would otherwise have been chosen. In some cases, it may be appropriate to split the overall multiplier into two or more parts and apply different multiplicands to each.
27. If doubt exists whether the tables are appropriate to a particular case which appears to present significant difficulties of substance, it would be prudent to seek actuarial advice. This might be appropriate in relation to the level of spouses' benefits, if these are to be assessed, since these are not readily valued using Tables 1 to 26. The value of these would generally be very small for a female claimant (i.e. benefits to the male spouse), but could add 10% to 20% to the pension loss for a male claimant.

Section B: Summary of Personal Injury Applications

28. Instructions for using the tables:

- (1) Choose the tables relating to the appropriate period of loss or expense, i.e. this will mainly be the "working life to pension age" or "whole life".
- (2) Choose the table, relating to that period, appropriate to the sex of the claimant.
- (3) Choose the appropriate discount rate (see paragraphs 10–15).
- (4) Find the figure under the column in the table given against the age at trial of the claimant.
- (5) Adjust the figure to take account of contingencies other than mortality.
- (6) Multiply the annual loss or expense by that figure.

29. In principle an allowance for an expected increase in the annual loss or expense (not due to inflation) can be made by choosing a lower discount rate or by increasing the figure of annual loss or expense. In cases where the claimant's expected age of retirement differs from that assumed in the tables, the more complicated procedure explained in paragraphs 16 to 20 should be followed.

Example 1

30. The following is an example of the use of the tables in a personal injury cases:

The claimant is female, aged 35 at the date of the trial/settlement. She is an established civil servant who was working in an office at an annual salary of \$360,000. As a result of her injury, she has lost her job and will never be able to obtain employment for the rest of her life. Her loss of earnings to retirement age of 60 is assessed as follows:

- (1) Look up Table 8 for loss of earnings to pension age 60 for females.
- (2) The discount rate is 2.5%. (see paragraph 13).
- (3) Table 8 shows that, on the basis of a 2.5% discount rate, the multiplier for a female aged 35 is 18.52.
- (4) The damages for loss of earnings are assessed as \$6,667,200 ($18.52 \times \$360,000$).

This example takes no account of risks other than mortality. Adjustments of the multiplier could be made by taking into account the factors described in paragraph 23.

Table 14: Multipliers for loss of earnings to pension age 75 (females)

TABLE 14: MULTIPLIERS FOR LOSS OF EARNINGS TO PENSION AGE 75 (FEMALES)

Age at date of trial	Multiplier calculated with allowance for projected mortality and rate of return of															Age at date of trial
	-2.0%	-1.5%	-1.0%	-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	
16	111.53	93.67	79.30	67.68	58.23	50.50	44.14	38.87	34.48	30.81	27.71	25.08	22.83	20.91	19.25	16
17	108.30	91.27	77.51	66.34	57.23	49.75	43.57	38.44	34.16	30.56	27.52	24.94	22.73	20.83	19.18	17
18	105.14	88.90	75.73	65.01	56.23	48.99	43.00	38.01	33.83	30.32	27.33	24.79	22.62	20.74	19.12	18
19	102.03	86.56	73.98	63.68	55.22	48.23	42.43	37.57	33.50	30.06	27.14	24.65	22.50	20.66	19.05	19
20	98.99	84.26	72.23	62.36	54.22	47.47	41.84	37.13	33.16	29.80	26.94	24.49	22.38	20.56	18.98	20
21	96.01	82.00	70.51	61.05	53.22	46.70	41.26	36.68	32.81	29.53	26.73	24.33	22.26	20.47	18.91	21
22	93.09	79.77	68.80	59.74	52.21	45.93	40.66	36.22	32.46	29.26	26.52	24.17	22.13	20.37	18.83	22
23	90.23	77.57	67.11	58.44	51.21	45.16	40.06	35.76	32.10	28.98	26.30	24.00	22.00	20.26	18.74	23
24	87.42	75.40	65.44	57.15	50.21	44.38	39.46	35.28	31.73	28.69	26.08	23.82	21.86	20.15	18.66	24
25	84.67	73.27	63.79	55.86	49.20	43.59	38.84	34.80	31.35	28.39	25.84	23.63	21.71	20.04	18.57	25
26	81.97	71.17	62.15	54.58	48.20	42.81	38.23	34.32	30.97	28.09	25.60	23.44	21.56	19.92	18.47	26
27	79.33	69.10	60.52	53.30	47.20	42.02	37.60	33.82	30.58	27.78	25.36	23.25	21.41	19.79	18.37	27
28	76.75	67.07	58.92	52.03	46.19	41.22	36.97	33.32	30.18	27.46	25.10	23.05	21.25	19.66	18.27	28
29	74.22	65.06	57.33	50.77	45.19	40.42	36.34	32.82	29.78	27.14	24.84	22.84	21.08	19.53	18.16	29
30	71.73	63.09	55.76	49.52	44.19	39.62	35.69	32.30	29.36	26.81	24.58	22.62	20.90	19.38	18.04	30
31	69.30	61.15	54.20	48.27	43.19	38.82	35.05	31.78	28.94	26.47	24.30	22.40	20.72	19.24	17.92	31
32	66.92	59.23	52.66	47.03	42.19	38.01	34.39	31.25	28.51	26.12	24.02	22.17	20.53	19.08	17.79	32
33	64.59	57.35	51.14	45.80	41.19	37.20	33.73	30.71	28.07	25.76	23.72	21.93	20.33	18.92	17.66	33
34	62.31	55.50	49.63	44.57	40.19	36.38	33.07	30.17	27.63	25.37	23.42	21.68	20.13	18.75	17.52	34
35	60.07	53.67	48.14	43.35	39.19	35.56	32.39	29.62	27.17	25.02	23.11	21.42	19.92	18.58	17.38	35
36	57.87	51.87	46.66	42.14	38.19	34.74	31.72	29.05	26.71	24.63	22.79	21.16	19.70	18.39	17.22	36
37	55.72	50.10	45.20	40.93	37.19	33.91	31.03	28.45	26.23	24.24	22.47	20.88	19.47	18.20	17.06	37
38	53.62	48.35	43.76	39.73	36.19	33.08	30.34	27.91	25.75	23.84	22.13	20.60	19.23	18.00	16.89	38
39	51.55	46.64	42.32	38.53	35.20	32.25	29.64	27.32	25.26	23.42	21.78	20.31	18.98	17.79	16.72	39
40	49.53	44.94	40.91	37.35	34.20	31.41	28.93	26.73	24.76	23.00	21.42	20.00	18.73	17.57	16.53	40
41	47.55	43.28	39.51	36.17	33.20	30.57	28.22	26.12	24.25	22.57	21.05	19.69	18.46	17.35	16.34	41
42	45.62	41.64	38.12	34.99	32.21	29.72	27.50	25.51	23.73	22.12	20.67	19.37	18.18	17.11	16.13	42
43	43.72	40.03	36.75	33.82	31.21	28.87	26.78	24.89	23.20	21.67	20.29	19.03	17.90	16.86	15.92	43
44	41.86	38.44	35.39	32.66	30.22	28.02	26.05	24.27	22.66	21.20	19.89	18.69	17.60	16.61	15.70	44
45	40.04	36.88	34.05	31.51	29.23	27.17	25.31	23.63	22.11	20.73	19.47	18.33	17.29	16.34	15.47	45
46	38.26	35.35	32.73	30.37	28.24	26.31	24.57	22.99	21.55	20.24	19.05	17.96	16.97	16.06	15.22	46
47	36.52	33.84	31.42	29.23	27.25	25.45	23.82	22.33	20.98	19.75	18.62	17.59	16.64	15.77	14.97	47
48	34.81	32.35	30.12	28.10	26.26	24.59	23.07	21.67	20.40	19.24	18.17	17.19	16.29	15.47	14.70	48
49	33.15	30.89	28.84	26.98	25.28	23.72	22.31	21.01	19.81	18.72	17.72	16.79	15.94	15.15	14.42	49
50	31.51	29.45	27.58	25.86	24.29	22.86	21.54	20.33	19.22	18.19	17.25	16.37	15.57	14.82	14.13	50
51	29.91	28.04	26.33	24.76	23.31	21.99	20.77	19.64	18.61	17.65	16.76	15.95	15.19	14.48	13.83	51
52	28.35	26.65	25.09	23.66	22.33	21.11	19.99	18.95	17.99	17.10	16.27	15.50	14.79	14.13	13.51	52
53	26.82	25.29	23.87	22.56	21.36	20.24	19.21	18.25	17.36	16.53	15.76	15.05	14.38	13.76	13.17	53
54	25.32	23.94	22.66	21.48	20.38	19.36	18.42	17.53	16.72	15.95	15.24	14.57	13.95	13.37	12.83	54
55	23.86	22.62	21.47	20.40	19.41	18.48	17.62	16.81	16.06	15.36	14.70	14.09	13.51	12.97	12.46	55
56	22.42	21.32	20.29	19.33	18.44	17.60	16.82	16.08	15.40	14.76	14.15	13.59	13.05	12.55	12.08	56
57	21.02	20.04	19.13	18.27	17.47	16.71	16.01	15.35	14.72	14.14	13.59	13.07	12.58	12.12	11.68	57
58	19.64	18.78	17.97	17.21	16.50	15.82	15.19	14.60	14.03	13.50	13.00	12.53	12.09	11.66	11.26	58
59	18.30	17.54	16.83	16.16	15.53	14.93	14.37	13.84	13.33	12.86	12.41	11.98	11.58	11.19	10.83	59
60	16.98	16.32	15.70	15.12	14.56	14.04	13.54	13.07	12.62	12.20	11.79	11.41	11.04	10.70	10.37	60
61	15.69	15.12	14.59	14.08	13.60	13.14	12.70	12.29	11.89	11.52	11.16	10.82	10.49	10.18	9.89	61
62	14.42	13.94	13.48	13.05	12.63	12.23	11.86	11.50	11.15	10.82	10.51	10.21	9.92	9.65	9.39	62
63	13.18	12.78	12.39	12.02	11.66	11.33	11.00	10.69	10.40	10.11	9.84	9.58	9.33	9.09	8.86	63
64	11.97	11.63	11.31	11.00	10.70	10.41	10.14	9.88	9.62	9.38	9.15	8.93	8.71	8.50	8.30	64
65	10.77	10.50	10.23	9.98	9.73	9.50	9.27	9.05	8.84	8.64	8.44	8.25	8.07	7.89	7.72	65

Table 19: Multipliers for loss of pension commencing age 60 (males)

TABLE 19: MULTIPLIERS FOR LOSS OF PENSION COMMENCING AGE 60 (MALES)

Age at date of trial	Multiplier calculated with allowance for projected mortality and rate of return of															Age at date of trial
	-2.0%	-1.5%	-1.0%	-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	
0	128.03	86.39	58.56	39.87	27.27	18.73	12.92	8.95	6.22	4.35	3.05	2.14	1.51	1.07	0.76	0
1	125.70	85.25	58.08	39.75	27.32	18.86	13.07	9.10	6.36	4.46	3.14	2.22	1.58	1.12	0.80	1
2	123.19	83.97	57.50	39.55	27.32	18.96	13.21	9.24	6.49	4.57	3.24	2.30	1.64	1.17	0.84	2
3	120.72	82.71	56.92	39.35	27.32	19.05	13.34	9.38	6.62	4.69	3.33	2.38	1.70	1.23	0.88	3
4	118.30	81.46	56.35	39.15	27.32	19.14	13.47	9.52	6.75	4.80	3.43	2.46	1.77	1.28	0.93	4
5	115.92	80.23	55.78	38.95	27.32	19.24	13.60	9.66	6.88	4.92	3.54	2.55	1.84	1.34	0.97	5
6	113.58	79.02	55.21	38.75	27.31	19.33	13.74	9.80	7.02	5.05	3.64	2.64	1.92	1.40	1.02	6
7	111.29	77.81	54.65	38.55	27.31	19.42	13.87	9.95	7.16	5.17	3.75	2.73	1.99	1.46	1.07	7
8	109.03	76.63	54.09	38.35	27.30	19.51	14.01	10.09	7.30	5.30	3.86	2.82	2.07	1.53	1.13	8
9	106.82	75.46	53.54	38.14	27.29	19.61	14.14	10.24	7.44	5.43	3.98	2.92	2.15	1.59	1.18	9
10	104.66	74.30	52.98	37.94	27.28	19.70	14.28	10.39	7.59	5.56	4.09	3.02	2.24	1.66	1.24	10
11	102.53	73.16	52.44	37.74	27.27	19.79	14.42	10.54	7.74	5.70	4.22	3.13	2.33	1.74	1.30	11
12	100.44	72.04	51.89	37.54	27.26	19.88	14.56	10.70	7.89	5.84	4.34	3.24	2.42	1.82	1.37	12
13	98.39	70.93	51.35	37.33	27.25	19.97	14.70	10.85	8.05	5.99	4.47	3.35	2.52	1.90	1.44	13
14	96.38	69.84	50.82	37.13	27.24	20.06	14.84	11.01	8.20	6.13	4.60	3.46	2.62	1.98	1.51	14
15	94.41	68.76	50.29	36.93	27.23	20.16	14.98	11.17	8.36	6.28	4.74	3.58	2.72	2.07	1.58	15
16	92.48	67.69	49.76	36.73	27.22	20.25	15.12	11.33	8.53	6.44	4.88	3.71	2.83	2.16	1.66	16
17	90.58	66.64	49.24	36.52	27.20	20.34	15.26	11.50	8.69	6.60	5.02	3.83	2.94	2.26	1.74	17
18	88.72	65.61	48.72	36.32	27.19	20.43	15.41	11.66	8.86	6.76	5.17	3.97	3.05	2.36	1.83	18
19	86.89	64.58	48.20	36.12	27.17	20.52	15.55	11.83	9.03	6.92	5.32	4.10	3.17	2.46	1.92	19
20	85.10	63.57	47.69	35.91	27.15	20.61	15.70	12.00	9.21	7.09	5.48	4.24	3.30	2.57	2.01	20
21	83.34	62.58	47.18	35.71	27.13	20.70	15.84	12.17	9.39	7.26	5.64	4.39	3.43	2.69	2.11	21
22	81.61	61.59	46.67	35.50	27.11	20.78	15.99	12.35	9.57	7.44	5.80	4.54	3.56	2.81	2.22	22
23	79.91	60.62	46.17	35.30	27.09	20.87	16.14	12.52	9.75	7.62	5.97	4.70	3.70	2.93	2.33	23
24	78.24	59.65	45.66	35.09	27.07	20.96	16.29	12.70	9.94	7.80	6.15	4.86	3.85	3.06	2.44	24
25	76.59	58.70	45.16	34.88	27.04	21.04	16.43	12.88	10.13	7.99	6.33	5.02	4.00	3.20	2.56	25
26	74.98	57.75	44.66	34.67	27.01	21.13	16.58	13.06	10.32	8.18	6.51	5.19	4.16	3.34	2.69	26
27	73.39	56.82	44.16	34.46	26.98	21.21	16.73	13.24	10.52	8.38	6.70	5.37	4.32	3.48	2.82	27
28	71.83	55.90	43.67	34.24	26.95	21.29	16.88	13.43	10.72	8.58	6.89	5.55	4.49	3.64	2.96	28
29	70.29	54.98	43.17	34.03	26.92	21.37	17.03	13.61	10.92	8.78	7.09	5.74	4.66	3.80	3.10	29
30	68.79	54.08	42.68	33.81	26.88	21.45	17.17	13.80	11.12	8.99	7.30	5.94	4.84	3.96	3.25	30
31	67.30	53.18	42.19	33.59	26.84	21.53	17.32	13.99	11.33	9.21	7.50	6.14	5.03	4.14	3.41	31
32	65.84	52.30	41.70	33.37	26.80	21.60	17.47	14.18	11.54	9.42	7.72	6.34	5.23	4.32	3.58	32
33	64.41	51.42	41.21	33.15	26.76	21.68	17.62	14.37	11.76	9.65	7.94	6.56	5.43	4.51	3.75	33
34	63.00	50.56	40.73	32.93	26.71	21.75	17.77	14.56	11.97	9.88	8.17	6.78	5.64	4.70	3.94	34
35	61.61	49.70	40.24	32.70	26.67	21.82	17.92	14.76	12.19	10.11	8.40	7.01	5.86	4.91	4.13	35
36	60.25	48.86	39.76	32.48	26.62	21.89	18.06	14.95	12.42	10.34	8.64	7.24	6.08	5.12	4.33	36
37	58.92	48.02	39.28	32.25	26.57	21.96	18.21	15.15	12.65	10.59	8.89	7.48	6.32	5.35	4.54	37
38	57.61	47.20	38.81	32.02	26.52	22.03	18.36	15.36	12.88	10.84	9.14	7.74	6.56	5.58	4.76	38
39	56.32	46.38	38.34	31.80	26.46	22.10	18.51	15.56	13.12	11.09	9.40	7.99	6.82	5.83	4.99	39
40	55.06	45.58	37.87	31.57	26.41	22.17	18.66	15.76	13.36	11.35	9.67	8.26	7.08	6.08	5.24	40
41	53.82	44.79	37.40	31.34	26.35	22.23	18.81	15.97	13.60	11.61	9.94	8.54	7.35	6.35	5.49	41
42	52.61	44.01	36.94	31.12	26.30	22.30	18.97	16.18	13.85	11.88	10.23	8.83	7.64	6.62	5.76	42
43	51.42	43.24	36.49	30.89	26.24	22.37	19.12	16.40	14.10	12.16	10.52	9.12	7.93	6.91	6.04	43
44	50.26	42.49	36.04	30.67	26.19	22.43	19.28	16.61	14.36	12.45	10.82	9.43	8.24	7.22	6.33	44
45	49.13	41.75	35.60	30.45	26.14	22.50	19.43	16.83	14.62	12.74	11.13	9.75	8.56	7.53	6.65	45
46	48.03	41.03	35.16	30.24	26.09	22.58	19.60	17.06	14.90	13.04	11.45	10.08	8.89	7.86	6.97	46
47	46.95	40.32	34.74	30.03	26.04	22.65	19.76	17.29	15.17	13.35	11.78	10.42	9.24	8.21	7.31	47
48	45.91	39.63	34.32	29.82	25.99	22.72	19.93	17.53	15.46	13.67	12.12	10.77	9.60	8.57	7.67	48
49	44.89	38.95	33.91	29.62	25.95	22.80	20.10	17.77	15.75	14.00	12.47	11.14	9.98	8.95	8.05	49
50	43.90	38.29	33.51	29.42	25.91	22.89	20.28	18.01	16.05	14.33	12.84	11.52	10.37	9.35	8.45	50

Table 20: Multipliers for loss of pension commencing age 60 (females)

TABLE 20: MULTIPLIERS FOR LOSS OF PENSION COMMENCING AGE 60 (FEMALES)

Age at date of trial	Multiplier calculated with allowance for projected mortality and rate of return of															Age at date of trial
	-2.0%	-1.5%	-1.0%	-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	
0	156.43	104.48	70.13	47.30	32.06	21.84	14.94	10.27	7.09	4.92	3.42	2.39	1.68	1.18	0.84	0
1	153.54	103.07	69.54	47.14	32.12	21.98	15.11	10.44	7.24	5.05	3.53	2.48	1.75	1.24	0.88	1
2	150.50	101.54	68.85	46.92	32.12	22.09	15.27	10.60	7.39	5.17	3.64	2.57	1.82	1.30	0.93	2
3	147.51	100.03	68.17	46.69	32.12	22.21	15.42	10.76	7.54	5.30	3.75	2.66	1.89	1.35	0.97	3
4	144.56	98.54	67.50	46.46	32.13	22.32	15.58	10.92	7.69	5.44	3.86	2.75	1.97	1.41	1.02	4
5	141.67	97.06	66.82	46.22	32.13	22.43	15.73	11.09	7.84	5.57	3.98	2.85	2.05	1.48	1.07	5
6	138.84	95.60	66.15	45.99	32.13	22.54	15.89	11.25	8.00	5.71	4.10	2.95	2.13	1.55	1.12	6
7	136.05	94.16	65.48	45.76	32.12	22.65	16.05	11.42	8.16	5.85	4.22	3.05	2.22	1.61	1.18	7
8	133.32	92.74	64.82	45.52	32.12	22.77	16.21	11.59	8.32	6.00	4.34	3.16	2.30	1.69	1.24	8
9	130.63	91.34	64.17	45.29	32.12	22.88	16.37	11.76	8.49	6.15	4.47	3.27	2.40	1.76	1.30	9
10	128.00	89.95	63.52	45.06	32.11	22.99	16.53	11.94	8.66	6.30	4.61	3.38	2.49	1.84	1.37	10
11	125.42	88.59	62.87	44.82	32.11	23.10	16.69	12.11	8.83	6.46	4.74	3.50	2.59	1.92	1.43	11
12	122.89	87.24	62.23	44.59	32.10	23.21	16.85	12.29	9.00	6.62	4.89	3.62	2.69	2.01	1.51	12
13	120.40	85.92	61.59	44.36	32.09	23.32	17.02	12.47	9.18	6.78	5.03	3.75	2.80	2.10	1.58	13
14	117.97	84.61	60.96	44.13	32.08	23.43	17.19	12.66	9.36	6.95	5.18	3.88	2.91	2.19	1.66	14
15	115.58	83.32	60.34	43.90	32.08	23.54	17.35	12.84	9.55	7.12	5.34	4.01	3.03	2.29	1.74	15
16	113.24	82.05	59.72	43.67	32.07	23.65	17.52	13.03	9.73	7.30	5.49	4.15	3.15	2.40	1.83	16
17	110.94	80.79	59.11	43.43	32.06	23.77	17.69	13.23	9.95	7.48	5.66	4.30	3.27	2.50	1.92	17
18	108.69	79.56	58.50	43.20	32.05	23.88	17.86	13.42	10.12	7.66	5.83	4.44	3.40	2.61	2.02	18
19	106.48	78.34	57.89	42.97	32.04	23.99	18.04	13.62	10.32	7.85	6.00	4.60	3.54	2.73	2.12	19
20	104.31	77.13	57.29	42.74	32.03	24.10	18.21	13.82	10.52	8.05	6.18	4.76	3.68	2.85	2.22	20
21	102.19	75.95	56.70	42.51	32.02	24.21	18.39	14.02	10.73	8.25	6.36	4.92	3.82	2.98	2.33	21
22	100.10	74.77	56.11	42.28	32.00	24.32	18.56	14.22	10.94	8.45	6.55	5.09	3.98	3.11	2.45	22
23	98.05	73.62	55.52	42.05	31.99	24.43	18.74	14.43	11.15	8.66	6.74	5.27	4.13	3.25	2.57	23
24	96.04	72.48	54.94	41.82	31.97	24.54	18.92	14.64	11.37	8.87	6.94	5.45	4.30	3.40	2.69	24
25	94.07	71.35	54.36	41.59	31.95	24.65	19.10	14.85	11.59	9.09	7.14	5.64	4.47	3.55	2.83	25
26	92.13	70.24	53.78	41.36	31.94	24.76	19.28	15.07	11.82	9.31	7.36	5.83	4.64	3.71	2.97	26
27	90.23	69.14	53.21	41.12	31.92	24.87	19.46	15.28	12.05	9.53	7.57	6.03	4.82	3.87	3.11	27
28	88.36	68.06	52.64	40.89	31.90	24.98	19.64	15.50	12.28	9.77	7.79	6.24	5.02	4.04	3.27	28
29	86.53	66.98	52.08	40.66	31.87	25.09	19.82	15.72	12.52	10.01	8.02	6.46	5.21	4.22	3.43	29
30	84.73	65.93	51.52	40.42	31.85	25.19	20.01	15.95	12.76	10.25	8.26	6.68	5.42	4.41	3.60	30
31	82.96	64.88	50.96	40.19	31.82	25.30	20.19	16.18	13.01	10.50	8.50	6.91	5.63	4.60	3.78	31
32	81.22	63.85	50.40	39.95	31.80	25.41	20.38	16.41	13.26	10.75	8.75	7.14	5.85	4.81	3.96	32
33	79.51	62.83	49.85	39.71	31.77	25.51	20.56	16.64	13.51	11.01	9.01	7.39	6.08	5.02	4.16	33
34	77.83	61.82	49.30	39.47	31.73	25.61	20.75	16.87	13.77	11.28	9.27	7.64	6.32	5.24	4.36	34
35	76.18	60.82	48.75	39.23	31.70	25.71	20.94	17.11	14.03	11.55	9.54	7.90	6.57	5.48	4.58	35
36	74.56	59.83	48.20	38.99	31.66	25.81	21.12	17.35	14.30	11.83	9.82	8.17	6.83	5.72	4.80	36
37	72.96	58.85	47.65	38.75	31.62	25.91	21.31	17.59	14.57	12.11	10.10	8.45	7.09	5.97	5.04	37
38	71.39	57.88	47.11	38.50	31.58	26.01	21.50	17.83	14.85	12.40	10.39	8.74	7.37	6.23	5.29	38
39	69.85	56.92	46.57	38.25	31.54	26.10	21.68	18.08	15.12	12.70	10.69	9.03	7.66	6.51	5.55	39
40	68.33	55.97	46.03	38.00	31.49	26.20	21.87	18.33	15.41	13.00	11.00	9.34	7.96	6.79	5.82	40
41	66.84	55.03	45.49	37.75	31.44	26.29	22.06	18.58	15.70	13.31	11.32	9.66	8.27	7.09	6.11	41
42	65.38	54.11	44.96	37.50	31.40	26.38	22.25	18.83	15.99	13.62	11.65	9.99	8.59	7.41	6.41	42
43	63.94	53.20	44.43	37.25	31.34	26.47	22.44	19.09	16.29	13.95	11.98	10.32	8.92	7.73	6.72	43
44	62.53	52.30	43.90	37.00	31.29	26.56	22.63	19.35	16.59	14.28	12.33	10.67	9.27	8.07	7.05	44
45	61.15	51.41	43.38	36.75	31.24	26.66	22.82	19.61	16.90	14.62	12.68	11.04	9.63	8.43	7.40	45
46	59.80	50.54	42.87	36.50	31.19	26.75	23.02	19.88	17.22	14.97	13.05	11.41	10.01	8.80	7.76	46
47	58.48	49.68	42.36	36.25	31.14	26.84	23.22	20.15	17.54	15.32	13.43	11.80	10.40	9.19	8.14	47
48	57.19	48.84	41.86	36.01	31.09	26.93	23.42	20.42	17.87	15.69	13.82	12.20	10.81	9.60	8.54	48
49	55.93	48.01	41.36	35.77	31.04	27.03	23.62	20.71	18.21	16.07	14.22	12.62	11.23	10.02	8.97	49
50	54.70	47.20	40.88	35.53	30.99	27.13	23.82	20.99	18.56	16.45	14.63	13.05	11.67	10.47	9.41	50

Table 21: Multipliers for loss of pension commencing age 65 (males)

TABLE 21: MULTIPLIERS FOR LOSS OF PENSION COMMENCING AGE 65 (MALES)

Age at date of trial	Multiplier calculated with allowance for projected mortality and rate of return of														Age at date of trial	
	-2.0%	-1.5%	-1.0%	-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%		5.0%
0	111.23	74.17	49.65	33.37	22.52	15.25	10.37	7.08	4.84	3.33	2.30	1.59	1.10	0.77	0.54	0
1	109.21	73.19	49.25	33.27	22.56	15.36	10.49	7.20	4.95	3.42	2.37	1.65	1.15	0.80	0.56	1
2	107.02	72.09	48.76	33.10	22.56	15.43	10.60	7.30	5.05	3.50	2.44	1.70	1.19	0.84	0.59	2
3	104.88	71.01	48.27	32.94	22.56	15.51	10.70	7.41	5.15	3.59	2.51	1.76	1.24	0.88	0.62	3
4	102.78	69.94	47.78	32.77	22.56	15.59	10.81	7.52	5.25	3.68	2.59	1.83	1.29	0.92	0.65	4
5	100.71	68.88	47.30	32.60	22.56	15.66	10.92	7.63	5.36	3.77	2.67	1.89	1.34	0.96	0.69	5
6	98.68	67.84	46.82	32.43	22.55	15.74	11.02	7.75	5.46	3.87	2.75	1.96	1.40	1.00	0.72	6
7	96.68	66.81	46.34	32.27	22.55	15.82	11.13	7.86	5.57	3.96	2.83	2.02	1.45	1.05	0.76	7
8	94.73	65.79	45.87	32.10	22.54	15.89	11.24	7.98	5.68	4.06	2.91	2.09	1.51	1.09	0.79	8
9	92.81	64.78	45.39	31.93	22.54	15.97	11.35	8.10	5.79	4.16	3.00	2.17	1.57	1.14	0.83	9
10	90.92	63.79	44.93	31.76	22.53	16.04	11.46	8.22	5.91	4.26	3.09	2.24	1.63	1.19	0.87	10
11	89.08	62.82	44.46	31.59	22.52	16.12	11.57	8.34	6.02	4.37	3.18	2.32	1.70	1.25	0.92	11
12	87.26	61.85	44.00	31.42	22.51	16.19	11.68	8.46	6.14	4.48	3.27	2.40	1.76	1.30	0.96	12
13	85.48	60.90	43.54	31.25	22.51	16.26	11.79	8.58	6.26	4.59	3.37	2.48	1.83	1.36	1.01	13
14	83.74	59.96	43.09	31.08	22.50	16.34	11.91	8.71	6.39	4.70	3.47	2.57	1.91	1.42	1.06	14
15	82.02	59.03	42.64	30.91	22.48	16.41	12.02	8.83	6.51	4.81	3.57	2.66	1.98	1.48	1.11	15
16	80.34	58.12	42.19	30.74	22.47	16.49	12.13	8.96	6.64	4.93	3.68	2.75	2.06	1.55	1.17	16
17	78.69	57.21	41.75	30.57	22.46	16.56	12.25	9.09	6.77	5.05	3.78	2.84	2.14	1.62	1.23	17
18	77.07	56.32	41.31	30.40	22.45	16.63	12.36	9.22	6.90	5.18	3.90	2.94	2.23	1.69	1.29	18
19	75.48	55.44	40.87	30.23	22.43	16.71	12.48	9.35	7.03	5.30	4.01	3.04	2.31	1.76	1.35	19
20	73.92	54.57	40.43	30.06	22.42	16.78	12.60	9.49	7.17	5.43	4.13	3.15	2.40	1.84	1.42	20
21	72.39	53.71	40.00	29.88	22.40	16.85	12.71	9.62	7.31	5.56	4.25	3.25	2.50	1.92	1.49	21
22	70.88	52.86	39.56	29.71	22.38	16.92	12.83	9.76	7.45	5.70	4.37	3.36	2.60	2.01	1.56	22
23	69.40	52.02	39.13	29.53	22.36	16.99	12.95	9.90	7.59	5.83	4.50	3.48	2.70	2.10	1.63	23
24	67.94	51.19	38.70	29.36	22.34	17.06	13.06	10.03	7.73	5.97	4.63	3.60	2.80	2.19	1.72	24
25	66.51	50.37	38.27	29.18	22.32	17.12	13.18	10.17	7.88	6.12	4.76	3.72	2.91	2.29	1.80	25
26	65.10	49.55	37.84	29.00	22.29	17.19	13.29	10.31	8.03	6.26	4.90	3.85	3.03	2.39	1.89	26
27	63.71	48.74	37.41	28.81	22.26	17.25	13.41	10.46	8.18	6.41	5.04	3.98	3.14	2.49	1.98	27
28	62.35	47.94	36.99	28.63	22.23	17.31	13.53	10.60	8.33	6.56	5.19	4.11	3.26	2.60	2.08	28
29	61.00	47.15	36.56	28.44	22.20	17.37	13.64	10.74	8.48	6.72	5.33	4.25	3.39	2.71	2.18	29
30	59.68	46.36	36.14	28.25	22.16	17.43	13.76	10.89	8.64	6.88	5.49	4.39	3.52	2.83	2.28	30
31	58.38	45.59	35.71	28.06	22.12	17.49	13.87	11.03	8.80	7.04	5.64	4.54	3.66	2.95	2.39	31
32	57.10	44.82	35.29	27.87	22.08	17.55	13.99	11.18	8.96	7.20	5.80	4.69	3.80	3.08	2.51	32
33	55.84	44.05	34.86	27.68	22.04	17.60	14.10	11.33	9.12	7.37	5.97	4.84	3.94	3.22	2.63	33
34	54.61	43.30	34.44	27.48	22.00	17.66	14.21	11.47	9.29	7.54	6.13	5.00	4.09	3.36	2.76	34
35	53.39	42.55	34.02	27.29	21.95	17.71	14.33	11.62	9.46	7.71	6.31	5.17	4.25	3.50	2.89	35
36	52.19	41.82	33.60	27.09	21.90	17.76	14.44	11.77	9.63	7.89	6.48	5.34	4.41	3.65	3.03	36
37	51.02	41.09	33.19	26.89	21.85	17.81	14.55	11.93	9.80	8.07	6.67	5.52	4.58	3.81	3.18	37
38	49.86	40.36	32.77	26.69	21.80	17.85	14.67	12.08	9.97	8.26	6.85	5.70	4.75	3.97	3.33	38
39	48.73	39.65	32.36	26.49	21.75	17.90	14.78	12.23	10.15	8.45	7.04	5.89	4.93	4.14	3.49	39
40	47.62	38.95	31.95	26.29	21.69	17.95	14.89	12.39	10.33	8.64	7.24	6.08	5.12	4.32	3.66	40
41	46.53	38.25	31.54	26.09	21.63	17.99	15.00	12.54	10.51	8.83	7.44	6.28	5.32	4.51	3.83	41
42	45.46	37.57	31.14	25.89	21.58	18.04	15.12	12.70	10.70	9.04	7.65	6.49	5.52	4.70	4.02	42
43	44.42	36.90	30.74	25.69	21.52	18.08	15.23	12.86	10.89	9.24	7.86	6.70	5.73	4.91	4.21	43
44	43.40	36.24	30.35	25.49	21.47	18.13	15.35	13.03	11.08	9.45	8.08	6.92	5.95	5.12	4.41	44
45	42.40	35.59	29.96	25.29	21.41	18.17	15.46	13.19	11.28	9.67	8.31	7.15	6.17	5.34	4.63	45
46	41.43	34.96	29.58	25.10	21.36	18.22	15.58	13.36	11.48	9.89	8.54	7.39	6.41	5.57	4.85	46
47	40.48	34.33	29.21	24.91	21.30	18.27	15.70	13.53	11.69	10.12	8.78	7.64	6.65	5.81	5.08	47
48	39.55	33.73	28.84	24.72	21.25	18.32	15.82	13.71	11.90	10.35	9.03	7.89	6.91	6.06	5.33	48
49	38.65	33.13	28.48	24.54	21.20	18.37	15.95	13.88	12.11	10.59	9.28	8.15	7.18	6.33	5.59	49
50	37.78	32.55	28.12	24.36	21.16	18.42	16.08	14.07	12.34	10.84	9.55	8.43	7.45	6.61	5.86	50

ACTUARIAL FORMULAE AND BASIS

The functions tabulated are:

Tables 1, 2	\bar{a}_x
Tables 3, 4	$\bar{a}_{x:50-x }$
Tables 5, 6	$\bar{a}_{x:55-x }$
Tables 7, 8	$\bar{a}_{x:60-x }$
Tables 9, 10	$\bar{a}_{x:65-x }$
Tables 11, 12	$\bar{a}_{x:70-x }$
Tables 13, 14	$\bar{a}_{x:75-x }$
Tables 15, 16	${}_{50-x }\bar{a}_x$
Tables 17, 18	${}_{55-x }\bar{a}_x$
Tables 19, 20	${}_{60-x }\bar{a}_x$
Tables 21, 22	${}_{65-x }\bar{a}_x$
Tables 23, 24	${}_{70-x }\bar{a}_x$
Tables 25, 26	${}_{75-x }\bar{a}_x$
Table 27	$1/(1+i)^n$
Table 28	$\bar{a}_{\overline{n} }$

- Definitions and computational formulae for the above actuarial functions can be found in standard textbooks for actuarial mathematics (e.g., *Actuarial Mathematics* by NL Bowers, HU Gerber, JC Hickman, DA Jones, and CJ Nesbitt; second edition, published by the Society of Actuaries, USA, 1997).
- Mortality: *Table E483: Projected Hong Kong Life Tables 2016-2064*, Census and Statistics Department, Hong Kong SAR Government. Downloaded from <http://www.censtatd.gov.hk/hkstat/sub/sp190.jsp?productCode=D5320183> on 28th February 2016.
- Loadings: None.
- Rate of return: As stated in the Tables.

PART II

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<http://www.pbookshop.com>

INFLATIONARY RATES: PAIN, SUFFERING AND LOSS OF AMENITIES (PSLA)

CHAN PUI KI v LEUNG ON [1996] 2 HKLR 401

Serious Injury	HK\$	400,000	–	HK\$	540,000
Substantial Injury	HK\$	540,000	–	HK\$	660,000
Gross Disability	HK\$	660,000	–	HK\$	1,000,000
Disaster	HK\$	1,000,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2005, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	376,000	–	HK\$	508,000
Substantial Injury	HK\$	508,000	–	HK\$	621,000
Gross Disability	HK\$	621,000	–	HK\$	940,000
Disaster	HK\$	940,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2006, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	384,000	–	HK\$	519,000
Substantial Injury	HK\$	519,000	–	HK\$	634,000
Gross Disability	HK\$	634,000	–	HK\$	960,000
Disaster	HK\$	960,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2007, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	390,000	–	HK\$	526,000
Substantial Injury	HK\$	526,000	–	HK\$	643,000
Gross Disability	HK\$	643,000	–	HK\$	973,000
Disaster	HK\$	973,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2008, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	413,000	–	HK\$	557,000
Substantial Injury	HK\$	557,000	–	HK\$	681,000
Gross Disability	HK\$	681,000	–	HK\$	1,032,000
Disaster	HK\$	1,032,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2009, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	410,000	–	HK\$	553,000
Substantial Injury	HK\$	553,000	–	HK\$	676,000
Gross Disability	HK\$	676,000	–	HK\$	1,023,000
Disaster	HK\$	1,023,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2010, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	422,000	–	HK\$	569,000
Substantial Injury	HK\$	569,000	–	HK\$	696,000
Gross Disability	HK\$	696,000	–	HK\$	1,054,000
Disaster	HK\$	1,054,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2011, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	446,000	–	HK\$	601,000
Substantial Injury	HK\$	601,000	–	HK\$	735,000
Gross Disability	HK\$	735,000	–	HK\$	1,113,000
Disaster	HK\$	1,113,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2012, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	462,000	–	HK\$	623,000
Substantial Injury	HK\$	623,000	–	HK\$	762,000
Gross Disability	HK\$	762,000	–	HK\$	1,154,000
Disaster	HK\$	1,154,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2013, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	481,000	–	HK\$	649,000
Substantial Injury	HK\$	649,000	–	HK\$	793,000
Gross Disability	HK\$	793,000	–	HK\$	1,202,000
Disaster	HK\$	1,202,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2014, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	498,000	–	HK\$	672,000
Substantial Injury	HK\$	672,000	–	HK\$	822,000
Gross Disability	HK\$	822,000	–	HK\$	1,245,000
Disaster	HK\$	1,245,000			upwards

TAKING INTO ACCOUNT THE EFFECTS OF PRICE INFLATION BETWEEN 1996 AND 2015, THE REVISED RANGES OF AWARD ARE:

Serious Injury	HK\$	514,000	–	HK\$	694,000
Substantial Injury	HK\$	694,000	–	HK\$	848,000
Gross Disability	HK\$	848,000	–	HK\$	1,284,000
Disaster	HK\$	1,284,000			upwards

Note: Where injuries are composite (physical, mental and psychological), it is the total effect of the injuries which must be assessed rather than the artificial category into which they fit most comfortably. The inflation adjustments are based on June values of the Hong Kong Composite Consumer Price Index each year.

WAGE STATISTICS (A)

This section provides average daily wages of workers engaged in public sector construction projects as reported by main contractors.

Cover Period

Monthly time series data from April 2003 to November 2015.

Data Source

Hong Kong Monthly Digest of Statistics (various issues), Census and Statistics Department, HKSAR.

<http://www.pbookshop.com>

Average Daily Wages (HK\$) of Workers Engaged in Public Sector Construction Projects as Reported by Main Contractors*

Year	Month	General workers and labourers	Concrete layer	Drainage layer	Mason and fixer	Bar bender and worker	Metal worker	General welder	Car-penter (form-work)	Joiner	Plumber	Construction plant mechanic	Plasterer	Glazier	Painter and decorator	Plant & equipment operator (load shifting)	Track driver	Rock-breaking driller	Bamboo scaffolding	Structural steel erector	Diver	Leveler	Masonry worker	Structural steel welder	Rigger/metal formwork erector	Asphalter (road construction)	Electrical fitter (incl. electrician)	Mechanical fitter	Refrigeration/air-conditioning/ventilation/mechanic	Fire services/mechanic	Lift and escalator/mechanic	Building services maintenance/chanic		
2003	Apr	601.1	1,080.4	957.0	867.7	1,325.1	889.5	848.6	1,268.8	1,027.6	975.2	877.9	963.0	897.1	882.4	806.1	655.1	886.8	1,145.2	958.3	2,018.4	766.1	1,040.1	868.2	984.0	863.5	804.7	746.9	670.9	793.5	855.0	950.0	640.5	
	May	601.1	1,076.0	968.8	946.5	1,309.2	885.5	848.2	1,249.0	1,020.6	980.9	846.5	968.9	875.5	898.8	807.6	649.2	864.9	1,161.9	989.4	1,991.4	775.1	1,091.3	885.0	992.6	858.8	808.9	690.6	702.8	690.6	800.7	841.0	700.0	742.2
	Jun	601.1	1,072.4	971.9	955.6	1,297.4	890.4	848.9	1,254.0	1,059.2	986.8	859.8	976.1	895.5	907.7	809.2	653.1	889.8	1,164.6	1,063.1	1,725.2	771.0	1,132.7	879.7	980.7	876.6	794.6	675.9	797.6	769.1	807.2	757.0	700.0	757.0
	Jul	600.5	1,093.4	961.1	959.8	1,296.1	892.8	850.6	1,258.1	1,147.5	996.4	861.7	983.6	878.1	911.4	803.0	647.9	889.7	1,181.7	1,015.1	1,673.6	763.1	1,085.2	906.4	986.1	773.9	782.6	759.5	797.4	759.0	801.4	708.3	708.3	
	Aug	598.9	1,078.2	949.7	937.5	1,276.4	886.4	847.5	1,227.1	1,122.4	977.6	848.2	982.6	889.4	905.5	797.9	645.6	891.1	1,154.2	1,018.6	1,680.5	758.6	1,003.7	915.8	986.8	741.2	775.0	767.9	745.6	793.2	840.0	700.0	700.0	
	Sep	592.8	1,060.1	969.2	938.8	1,265.4	875.8	846.6	1,206.8	1,074.0	983.2	832.0	982.6	866.9	907.5	791.9	645.6	865.0	1,138.7	1,044.5	1,704.6	745.4	1,027.9	888.6	956.3	707.6	779.1	767.5	767.5	802.7	830.0	600.0	600.0	
	Oct	591.6	1,049.7	950.4	930.9	1,253.5	868.4	844.4	1,187.9	1,089.2	979.8	825.9	975.9	888.6	885.6	784.3	641.2	849.3	1,163.3	1,007.5	1,643.0	744.7	1,056.9	859.8	914.5	752.4	762.9	757.9	732.3	794.6	895.2	772.0	637.3	
	Nov	587.2	1,032.0	932.4	919.4	1,238.4	869.5	826.3	1,188.6	1,098.3	976.8	830.5	977.7	883.8	872.2	781.2	634.8	865.1	1,161.0	999.5	1,556.1	759.1	1,068.3	906.9	920.2	724.0	754.1	788.4	646.7	780.5	838.2	795.2	794.7	
	Dec	589.1	1,021.9	953.4	933.6	1,249.7	863.6	820.6	1,184.8	1,045.2	967.6	816.3	981.9	879.5	894.8	781.9	642.8	868.2	1,148.1	1,040.6	1,524.4	751.9	1,013.6	898.6	901.8	753.6	758.1	703.3	646.1	776.7	833.7	828.8	600.0	
2004	Jan	590.3	1,031.3	957.1	954.7	1,243.8	860.0	814.6	1,199.2	1,106.7	981.3	825.0	973.9	899.2	901.3	783.3	634.2	854.7	1,174.1	1,075.9	1,722.8	761.9	1,052.8	927.5	847.5	788.8	753.1	750.0	635.4	765.9	863.5	772.6	600.0	
	Feb	590.0	1,029.7	948.9	970.7	1,248.6	863.5	801.3	1,201.3	1,131.1	965.9	819.1	938.9	888.4	901.6	779.7	625.5	868.3	1,147.1	1,025.6	1,582.9	759.5	1,023.2	949.1	849.6	744.6	759.8	765.3	655.8	764.7	813.1	740.6	627.5	
	Mar	590.4	1,027.7	915.5	952.7	1,245.1	867.6	799.7	1,199.3	1,087.6	964.8	820.4	976.7	906.3	903.4	773.2	624.8	861.9	1,126.3	1,031.6	1,447.1	756.8	1,036.8	966.3	839.3	792.6	756.6	753.7	659.9	754.9	747.9	728.1	642.4	
	Apr	588.6	1,021.5	895.0	932.1	1,236.3	847.1	802.6	1,162.8	1,012.2	940.9	814.9	930.3	885.7	886.4	776.2	601.2	815.3	1,102.3	977.9	1,510.6	764.3	1,034.7	921.8	825.7	741.2	753.1	757.8	647.6	756.8	751.3	787.8	600.0	
	May	584.9	1,017.4	899.2	935.3	1,219.9	845.8	784.7	1,149.5	1,005.4	929.2	809.3	932.8	870.7	872.8	776.0	600.0	797.9	1,080.0	972.6	1,600.8	762.0	1,034.9	960.5	810.4	677.2	751.8	744.1	675.3	762.9	747.6	774.2	616.2	
	Jun	584.9	1,026.3	961.3	927.5	1,225.4	853.1	790.1	1,146.9	1,039.4	933.8	802.7	934.9	843.2	878.4	784.4	604.6	821.0	1,077.3	966.2	1,596.4	757.9	1,008.2	939.0	810.4	715.3	763.7	752.5	685.1	762.7	785.7	728.9	725.6	
	Jul	582.1	1,011.7	921.6	955.4	1,221.2	856.5	785.5	1,148.2	1,023.4	947.0	813.3	949.9	896.7	89.2	784.4	608.8	822.6	1,068.1	912.5	1,636.2	761.6	978.2	923.1	777.3	740.8	772.2	752.6	688.2	771.0	834.8	803.2	742.4	
	Aug	579.5	1,013.1	837.3	925.0	1,220.7	854.8	783.2	1,135.4	1,022.2	949.2	821.5	932.2	865.4	886.6	784.9	611.3	822.6	1,048.6	973.9	1,703.4	755.7	1,057.2	960.7	773.7	740.8	778.3	734.7	701.1	778.0	834.8	893.2	648.1	
	Sep	578.5	1,011.9	853.1	923.3	1,200.9	860.2	787.9	1,123.8	1,058.4	946.8	825.6	933.2	879.7	882.4	780.4	607.2	829.9	1,057.6	913.1	1,700.6	756.6	1,055.3	919.3	763.8	697.0	774.7	728.5	701.2	776.5	881.7	859.1	642.8	
	Oct	579.7	1,018.0	862.9	886.5	1,245.1	855.1	788.5	1,102.3	1,055.0	945.7	824.9	921.3	862.3	871.8	777.3	612.5	816.0	1,085.7	929.3	1,643.1	756.4	983.0	844.1	765.2	668.2	771.8	721.5	689.4	780.0	836.0	884.7	796.2	
	Nov	581.3	1,011.9	897.0	876.7	1,240.9	846.4	801.5	1,108.3	1,060.3	944.2	828.7	911.2	878.2	865.0	762.4	615.5	832.9	1,039.4	992.3	1,629.1	768.1	965.4	878.6	765.5	705.7	728.5	694.2	775.1	830.4	908.4	805.8		
	Dec	576.9	1,006.2	872.7	887.2	1,195.4	852.6	803.9	1,097.2	1,082.8	936.7	825.8	904.6	847.0	866.5	776.8	604.6	866.8	1,072.1	902.6	1,560.7	759.3	956.1	888.2	761.1	706.4	765.8	722.5	698.5	781.6	789.2	891.2	854.8	
2005	Jan	575.8	993.7	858.1	881.2	1,191.0	850.5	806.1	1,094.9	1,065.1	928.7	823.9	912.1	834.3	859.2	777.5	605.0	865.0	1,068.3	904.0	1,611.4	756.1	962.0	891.2	758.0	721.0	760.8	713.8	700.1	779.8	741.5	866.5	698.0	
	Feb	570.2	990.1	867.8	875.5	1,197.0	847.3	818.6	1,102.5	1,050.8	905.3	832.7	913.9	843.6	842.7	785.3	606.5	817.4	1,068.5	933.1	1,674.3	761.9	978.8	926.9	774.3	743.4	738.7	714.1	674.1	769.1	756.7	827.6	664.9	
	Mar	568.8	974.6	896.6	884.1	1,188.3	843.3	806.4	1,073.4	1,043.6	902.2	809.1	896.6	839.8	844.4	770.4	594.2	851.8	1,047.9	885.9	1,666.3	750.3	1,009.7	893.8	759.1	753.8	762.8	709.7	695.6	760.0	780.8	854.6	737.5	
	Apr	573.0	956.6	893.2	883.3	1,183.8	841.3	804.5	1,078.9	1,042.2	910.2	813.9	905.1	855.5	843.6	763.6	596.9	839.7	1,000.0	892.7	1,654.6	724.7	1,072.7	889.5	746.9	723.0	754.8	710.1	707.4	782.7	795.3	819.3	607.1	
	May	572.8	947.2	848.8	875.0	1,163.8	850.4	786.0	1,072.2	1,019.7	911.8	811.5	904.3	869.5	854.5	766.8	583.0	838.1	1,093.7	834.8	1,778.8	708.4	1,030.0	886.2	748.2	765.5	713.0	703.0	798.8	802.3	801.1	600.0		
	Jun	571.7	923.5	886.3	874.7	1,159.6	840.9	783.7	1,073.7	982.1	903.3	807.6	883.3	878.2	853.6	765.6	572.5	851.2	1,075.1	861.8	1,687.4	700.3	969.2	946.2	724.1	783.9	742.0	705.1	659.3	758.2	820.8	832.9	831.3	
	Jul	567.7	936.5	859.3	872.5	1,148.7	842.9	774.2	1,069.9	1,017.8	890.6	811.3	881.3	861.3	834.9	765.5	572.3	845.5	1,052.6	883.6	1,619.2	695.6	963.6	931.1	729.8	762.0	738.9	707.7	641.1	742.0	875.7	786.4	697.2	
	Aug	560.9	929.5	827.8	857.3	1,143.7	814.4	779.9	1,052.3	988.7	871.9	780.3	878.5	855.5	816.0	768.8	574.7	848.6	1,031.5	886.0	1,749.6	689.3	818.6	906.5	718.8	749.9	722.3	701.9	615.6	729.2	845.9	786.4	608.9	
	Sep	560.5	920.8	806.4	861.7	1,131.8	813.5	777.5	1,034.9	1,009.0	887.7	760.1	880.7	848.6	808.2	770.3	581.9	824.7	1,031.4	891.1	1,686.8	681.8	745.5	903.2	703.9	769.2	721.1	697.6	600.1	718.1	863.2	786.4	600.0	
	Oct	562.5	920.2	873.3	864.1	1,123.1	815.6	783.0	1,023.1	1,000.8	880.4	780.6	859.5	871.1	809.9	764.7	597.5	822.9	1,040.9	97.8	1,709.5	683.8	838.4	885.2	718.0	771.4	707.4	690.8	574.8	714.2	797.2	786.4	600.0	
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