

Sum Assured	5,000,000
Premium	52,000
Age	50
Policy Term	15
Premium Term	15
Initial Expense	3,000
Renewal Expense	500
Investment Return	7%
Investment Return + 100 bps	8%
Investment Return - 100 bps	6%

Mortality Improvement Factor

Age	Commision
50	2%
60	-1%

Year	Commision
1	35%
2	5%
3	5%
4	3%

Age	Mortality
40	0.000937
41	0.001014
42	0.001104
43	0.001208
44	0.001327
45	0.001465
46	0.001622
47	0.001802
48	0.002008
49	0.002241
50	0.002508
51	0.002809
52	0.003152
53	0.003539
54	0.003976
55	0.004469
56	0.005025
57	0.005650
58	0.006352
59	0.007140
60	0.008022
61	0.009009
62	0.010112
63	0.011344
64	0.012716
65	0.014243

66	0.015940
67	0.017824
68	0.019913
69	0.022226
70	0.024783

Risk Discount Rate 12% Marks 1 Marks 1 Marks 1 Marks 1 Marks 1 Marks 1

Policy Year	Age	Premium	Expense	Commssion	Int. on BOY CFs	Mortality	Probability Inforce BOY
1	50	52,000	3,000	18,200	2,156	0.002508	1.000000
2	51	52,000	500	2,600	3,423	0.002809	0.997492
3	52	52,000	500	2,600	3,423	0.003152	0.994690
4	53	52,000	500	1,560	3,496	0.003539	0.991555
5	54	52,000	500	1,560	3,496	0.003976	0.988046
6	55	52,000	500	1,560	3,496	0.004469	0.984117
7	56	52,000	500	1,560	3,496	0.005025	0.979719
8	57	52,000	500	1,560	3,496	0.005650	0.974796
9	58	52,000	500	1,560	3,496	0.006352	0.969288
10	59	52,000	500	1,560	3,496	0.007140	0.963132
11	60	52,000	500	1,560	3,496	0.008022	0.956255
12	61	52,000	500	1,560	3,496	0.009009	0.948584
13	62	52,000	500	1,560	3,496	0.010112	0.940038
14	63	52,000	500	1,560	3,496	0.011344	0.930532
15	64	52,000	500	1,560	3,496	0.012716	0.919976

Expected Present Value of Premium paid at BoY 388,708 Marks 1

Expected Present Value of Net Cashflow at EoY 112,899 Marks 1

Profit Margin 29.04% Marks 1

Marks 1

Marks 1

Marks 1

Marks 1

Marks 1

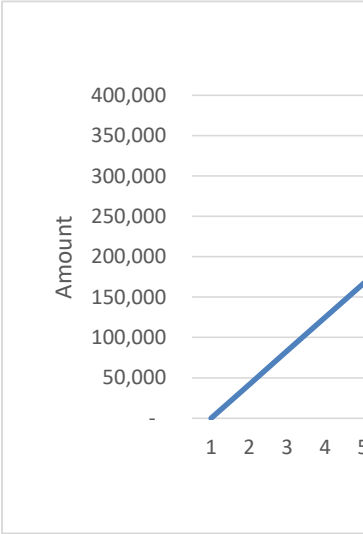
Marks 1

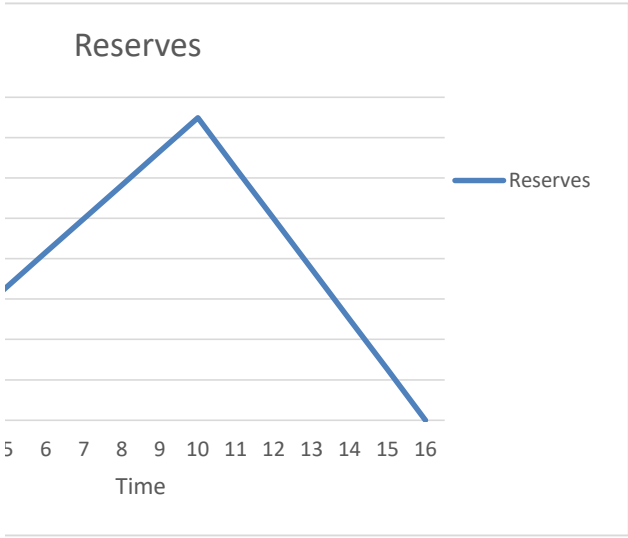
Probability	Cost of Inforce EOY	Cost of Death	Cost of Death adj. for inv. Return	Net Cashflow excl Reserves (wo probability)	Reserves at EOY	Addl Reserve required (after adjustment for interest)
0.997492	12,540	12,540	12,971	19,985	41,496	41,496
0.994690	14,045	14,045	14,528	37,795	82,758	38,358
0.991555	15,760	15,760	16,302	36,021	123,746	35,195
0.988046	17,695	17,695	18,304	35,132	164,411	32,003
0.984117	19,880	19,880	20,564	32,872	204,696	28,777
0.979719	22,345	22,345	23,114	30,322	244,538	25,513
0.974796	25,125	25,125	25,990	27,446	283,861	22,205
0.969288	28,250	28,250	29,222	24,214	322,579	18,848
0.963132	31,760	31,760	32,853	20,583	360,596	15,437
0.956255	35,700	35,700	36,928	16,507	298,352	-87,487
0.948584	40,110	40,110	41,490	11,946	236,767	-82,470
0.940038	45,045	45,045	46,595	6,841	175,975	-77,365
0.930532	50,560	50,560	52,300	1,136	116,130	-72,163
0.919976	56,720	56,720	58,672	-5,236	57,407	-66,853
0.908278	63,580	63,580	65,768	-12,332	-	-61,425

Marks 1	Marks 1
Expected EoY	
Net Cashflow	Discount
incl Reserves	Factor
(w probability)	(EoY)
-21,511	0.892857
-658	0.797194
635	0.711780
2,833	0.635518
3,702	0.567427
4,328	0.506631
4,685	0.452349
4,755	0.403883
4,514	0.360610
103,386	0.321973
93,893	0.287476
83,854	0.256675
73,231	0.229174
61,981	0.204620
50,080	0.182696

Time	Reserves
0	-
1	41,600
2	83,200
3	124,800
4	166,400
5	208,000
6	249,600
7	291,200
8	332,800
9	374,400
10	312,000
11	249,600
12	187,200
13	124,800
14	62,400
15	-

3 marks for correct graph.





Question 1 (iii)

Shape of the reserve is inverted U or inverted V curve. As this is a term assurance, the only benefit is death and no maturity benefit is payable, hence the reserves decrease as we approach end of policy term.

Level premiums are charged to cover the death benefit which increases due to increase in mortality. The reserve increases initially when the income received is more than the expected death benefit payable in the particular year; however, the reserve tends to decrease as the company fulfils its obligation in years where the expected death benefit is higher than premium and as the term of the contract reduces the likelihood of the payment from policy duration.

benefit

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Risk Discount Rate 12%

Marks 1

Policy Year	Age	Premium	Expense	Commssion	Int. on BOY CFs	Mortality	Improvem ent in Mortality
1	50	52000	3000	18200	2156	0.002508	0.980000
2	51	52000	500	2600	3423	0.002809	0.980000
3	52	52000	500	2600	3423	0.003152	0.980000
4	53	52000	500	1560	3496	0.003539	0.980000
5	54	52000	500	1560	3496	0.003976	0.980000
6	55	52000	500	1560	3496	0.004469	0.980000
7	56	52000	500	1560	3496	0.005025	0.980000
8	57	52000	500	1560	3496	0.005650	0.980000
9	58	52000	500	1560	3496	0.006352	0.980000
10	59	52000	500	1560	3496	0.007140	0.980000
11	60	52000	500	1560	3496	0.008022	1.010000
12	61	52000	500	1560	3496	0.009009	1.010000
13	62	52000	500	1560	3496	0.010112	1.010000
14	63	52000	500	1560	3496	0.011344	1.010000
15	64	52000	500	1560	3496	0.012716	1.010000

Expected Present
Value
of Premium paid at
BoY 388833.49

Expected Present
Value
of Net Cashflow at EoY 119924.23

Profit Margin 30.84% Marks 1

Marks 1

Probability Inforce BOY	Probability Inforce EOY	Cost of Death	Cost of Death adj. for inv. Return	Net Cashflow excl Reserves (wo probability)	Reserves at EOY	Addl Reserve required (after adjustment for interest)
1.000000	0.997542	12289	12,712	20244	41498	41,498
0.997542	0.994796	13764	14,238	38559	82767	38,364
0.994796	0.991723	15445	15,976	36878	123767	35,206
0.991723	0.988284	17341	17,938	36095	164450	32,020
0.988284	0.984433	19482	20,153	33953	204762	28,800
0.984433	0.980121	21898	22,652	31538	244638	25,543
0.980121	0.975295	24623	25,470	28813	284006	22,243
0.975295	0.969895	27685	28,638	25751	322781	18,895
0.969895	0.963857	31125	32,196	22311	360868	15,492
0.963857	0.957113	34986	36,190	18450	298619	-87,510
0.957113	0.949358	40511	41,905	12925	236960	-82,563
0.949358	0.940720	45495	47,061	7940	176103	-77,444
0.940720	0.931112	51066	52,823	2370	116203	-72,227
0.931112	0.920444	57287	59,258	-3851	57436	-66,901
0.920444	0.908622	64216	66,425	-10780	0	-61,456

3 mrks for correctly copying information.

Expected EoY Net Cashflow incl Reserves (w probability)	Discount Factor
-21254	0.892857
100	0.797194
1480	0.711780
3776	0.635518
4755	0.567427
5504	0.506631
5998	0.452349
6220	0.403883
6147	0.360610
105293	0.321973
94933	0.287476
84982	0.256675
74457	0.229174
63315	0.204620
51534	0.182696

Question 1 (v)

Expected Profit Margin of the contract has increased as the company now has to pay lower expected death due to improvement in mortality, while the company continues to charge the same premium.

benefit,

Risk Discount Rate 13% Marks 1

Policy Year	Age	Premium	Expense	Commssion	Int. on BOY CFs	Mortality	Probability Inforce BOY
1	50	52,000	3,000	18,200	2,464	0.002508	1.000000
2	51	52,000	500	2,600	3,912	0.002809	0.997492
3	52	52,000	500	2,600	3,912	0.003152	0.994690
4	53	52,000	500	1,560	3,995	0.003539	0.991555
5	54	52,000	500	1,560	3,995	0.003976	0.988046
6	55	52,000	500	1,560	3,995	0.004469	0.984117
7	56	52,000	500	1,560	3,995	0.005025	0.979719
8	57	52,000	500	1,560	3,995	0.005650	0.974796
9	58	52,000	500	1,560	3,995	0.006352	0.969288
10	59	52,000	500	1,560	3,995	0.007140	0.963132
11	60	52,000	500	1,560	3,995	0.008022	0.956255
12	61	52,000	500	1,560	3,995	0.009009	0.948584
13	62	52,000	500	1,560	3,995	0.010112	0.940038
14	63	52,000	500	1,560	3,995	0.011344	0.930532
15	64	52,000	500	1,560	3,995	0.012716	0.919976

Expected Present
Value
of Premium paid at
BoY

372,385

Expected Present
Value
of Net Cashflow at
EoY

112,429

Profit Margin

30.19% Marks 1

Probability	Cost of Inforce EOY	Cost of Death	Cost of Death adj. for inv. Return	Net Cashflow excl Reserves (wo probability)	Reserves at EOY	Addl Reserve required (after adjustment for interest)
0.997492	12,540		13,032	20,232	41,496	41,496
0.994690	14,045		14,596	38,216	82,758	37,943
0.991555	15,760		16,378	36,434	123,746	34,367
0.988046	17,695		18,389	35,546	164,411	30,765
0.984117	19,880		20,660	33,275	204,696	27,133
0.979719	22,345		23,222	30,714	244,538	23,466
0.974796	25,125		26,111	27,825	283,861	19,760
0.969288	28,250		29,358	24,577	322,579	16,010
0.963132	31,760		33,006	20,929	360,596	12,211
0.956255	35,700		37,101	16,835	298,352	(91,093)
0.948584	40,110		41,684	12,252	236,767	(85,453)
0.940038	45,045		46,812	7,123	175,975	(79,733)
0.930532	50,560		52,543	1,392	116,130	(73,923)
0.919976	56,720		58,945	-5,010	57,407	(68,014)
0.908278	63,580		66,074	-12,139	-	(61,999)

3 mrks for correctly copying information & updating relevant sections.

Expected EoY Net Cashflow incl Reserves (w probability)	Discount Factor (EoY)
-21,264	0.884956
177	0.783147
1,873	0.693050
4,481	0.613319
5,745	0.542760
6,760	0.480319
7,501	0.425061
7,948	0.376160
8,076	0.332885
107,307	0.294588
97,169	0.260698
86,490	0.230706
75,231	0.204165
63,352	0.180677
50,831	0.159891

Risk Discount Rate 11% Marks 1

Policy Year	Age	Premium	Expense	Commssion	Int. on BOY CFs	Mortality	Probability Inforce BOY
1	50	52,000	3,000	18,200	1,848	0.002508	1.000000
2	51	52,000	500	2,600	2,934	0.002809	0.997492
3	52	52,000	500	2,600	2,934	0.003152	0.994690
4	53	52,000	500	1,560	2,996	0.003539	0.991555
5	54	52,000	500	1,560	2,996	0.003976	0.988046
6	55	52,000	500	1,560	2,996	0.004469	0.984117
7	56	52,000	500	1,560	2,996	0.005025	0.979719
8	57	52,000	500	1,560	2,996	0.005650	0.974796
9	58	52,000	500	1,560	2,996	0.006352	0.969288
10	59	52,000	500	1,560	2,996	0.007140	0.963132
11	60	52,000	500	1,560	2,996	0.008022	0.956255
12	61	52,000	500	1,560	2,996	0.009009	0.948584
13	62	52,000	500	1,560	2,996	0.010112	0.940038
14	63	52,000	500	1,560	2,996	0.011344	0.930532
15	64	52,000	500	1,560	2,996	0.012716	0.919976

Expected Present
Value
of Premium paid at
BoY

406,421

Expected Present
Value
of Net Cashflow at
EoY

113,188

Profit Margin

27.85% Marks 1

Probability Inforce EOY	Cost of Death	Cost of Death adj. for inv. Return	Net Cashflow excl Reserves (wo probability)	Reserves at EOY	Addl Reserve required (after adjustment for interest)
0.997492	12,540	12,911	19,737	41,496	41,496
0.994690	14,045	14,460	37,374	82,758	38,773
0.991555	15,760	16,226	35,608	123,746	36,022
0.988046	17,695	18,218	34,718	164,411	33,240
0.984117	19,880	20,468	32,469	204,696	30,421
0.979719	22,345	23,006	29,931	244,538	27,560
0.974796	25,125	25,868	27,069	283,861	24,650
0.969288	28,250	29,085	23,851	322,579	21,687
0.963132	31,760	32,699	20,237	360,596	18,662
0.956255	35,700	36,755	16,181	298,352	(83,881)
0.948584	40,110	41,296	11,641	236,767	(79,486)
0.940038	45,045	46,377	6,560	175,975	(74,997)
0.930532	50,560	52,055	882	116,130	(70,403)
0.919976	56,720	58,397	-5,460	57,407	(65,692)
0.908278	63,580	65,460	-12,523	-	(60,851)

3 mrks for correctly copying information & updating relevant sections.

Expected EoY Net Cashflow incl Reserves (w probability)	Discount Factor (EoY)
-21,758	0.900901
-1,493	0.811622
-603	0.731191
1,185	0.658731
1,660	0.593451
1,896	0.534641
1,869	0.481658
1,563	0.433926
953	0.390925
99,465	0.352184
90,617	0.317283
81,220	0.285841
71,232	0.257514
60,611	0.231995
49,330	0.209004

Question 1 (vi)

Under the sensitivity with 100bps increase in investment return, Value of the net cashflow has increased as increase in investment return. Overall profit margin has **increased** but its impact has reduced due to increase in Discount Rate which also impact the discounting on the cashflows .

Under the sensitivity with 100bps decrease in investment return, Value of the net cashflow has decreased as of decrease in investment return. Overall profit margin has **decreased** but its impact has reduced due to increase in Risk Discount Rate which also impact the discounting on the cashflows .

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Age	Mortality
25	0.000435
26	0.000440
27	0.000447
28	0.000455
29	0.000465
30	0.000476
31	0.000490
32	0.000507
33	0.000527
34	0.000550
35	0.000577
36	0.000608
37	0.000644
38	0.000685
39	0.000733
40	0.000788
41	0.000851
42	0.000922
43	0.001003
44	0.001096
45	0.001201
46	0.001320
47	0.001455
48	0.001607
49	0.001778
50	0.001971

Office Premium Amount	50,000
Death Benefit	500,000
Maturity	900,000

Expense	500
Interest rate	5.0%

Net Premium	63,660	Determined using goal seek (mark 2)	Marks 1
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Age	End of policy year	Time steps for premium payment	Premium amount
30	0	1	50,000
31	1	1	50,000
32	2	1	50,000
33	3	1	50,000
34	4	1	50,000
35	5	1	50,000
36	6	1	50,000
37	7	1	50,000
38	8	0	-
39	9	0	-
40	10	0	-
41	11	0	-
42	12	0	-
43	13	0	-
44	14	0	-
45	15	0	-

Marks 1

Marks 1

Marks 1

Death Benefit	Maturity Benefit	Probability in-force	Ind probability of death
	0	1	0.00048
500,000	-	0.99952	0.00049
500,000	-	0.99903	0.00051
500,000	-	0.99853	0.00053
500,000	-	0.99800	0.00055
500,000	-	0.99745	0.00058
500,000	-	0.99688	0.00061
500,000	-	0.99627	0.00064
500,000	-	0.99563	0.00069
500,000	-	0.99495	0.00073
500,000	-	0.99422	0.00079
500,000	-	0.99343	0.00085
500,000	-	0.99259	0.00092
500,000	-	0.99167	0.00100
500,000	-	0.99068	0.00110
500,000	900,000	0.98959	0.00120
		0.98841	

Marks 1

Marks 1

Marks 1

Marks 1

Prob of death	Net Premium Cash flow	Death Benefit Cash flow	Maturity Benefit Cash flow
0.00048	63,660		
0.00049	63,630	238	-
0.00051	63,598	245	-
0.00053	63,566	253	-
0.00055	63,533	263	-
0.00058	63,498	274	-
0.00061	63,461	288	-
0.00064	63,422	303	-
0.00068	-	321	-
0.00073	-	341	-
0.00078	-	365	-
0.00085	-	392	-
0.00092	-	423	-
0.00099	-	458	-
0.00109	-	497	-
0.00119	-	543	889,565

Marks 2

Marks 1

Marks 1

Marks 1

PV Premium	PV Death Benefit	PV Maturity Benefit	PV Benefits - PV Premium	
431,305.15	3,409.37	427,895.78	-	Goal seek this to be 0 by c
386,027.56	3,579.84	449,290.57	66,842.84	
338,517.91	3,508.93	471,755.10	136,746.11	
288,665.52	3,427.25	495,342.85	210,104.58	
236,354.36	3,332.69	520,110.00	287,088.33	\$173,167.81
181,462.82	3,223.06	546,115.49	367,875.74	
123,863.39	3,096.04	573,421.27	452,653.92	
63,422.46	2,948.69	602,092.33	541,618.56	
-	2,777.92	632,196.95	634,974.87	
-	2,579.98	663,806.80	666,386.77	
-	2,350.92	696,997.14	699,348.06	
-	2,085.59	731,846.99	733,932.58	
-	1,778.56	768,439.34	770,217.90	
-	1,423.65	806,861.31	808,284.96	
-	1,014.36	847,204.38	848,218.74	
-	542.89	889,564.60	890,107.49	

hanging value of net premium

\$3,075.73 \$521,151.52

Office Premium Amount	50,000
Death Benefit	500,000
Maturity	900,000

Expense	500
Interest rate	5.0%

Net Premium	63,660	Determined using goal seek (same as previous part)
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Age	End of policy year	Time steps for premium payment	Gross Premium due
30	0	1	
31	1	1	
32	2	1	
33	3	1	
34	4	1	
35	5	1	50,000
36	6	1	50,000
37	7	1	50,000
38	8	0	-
39	9	0	-
40	10	0	-
41	11	0	-
42	12	0	-
43	13	0	-
44	14	0	-
45	15	0	-

Marks 0.5

Marks 0.5

Marks 1

Probability in-force	Ind probability of death	Prob of death	Gross Premium Cash flow
			-
			-
			-
			-
1.00000	0.00055	0.00055	-
0.99945	0.00058	0.00058	49,973
0.99887	0.00061	0.00061	49,944
0.99827	0.00064	0.00064	49,913
0.99762	0.00069	0.00068	-
0.99694	0.00073	0.00073	-
0.99621	0.00079	0.00079	-
0.99542	0.00085	0.00085	-
0.99458	0.00092	0.00092	-
0.99366	0.00100	0.00100	-
0.99266	0.00110	0.00109	-
0.99158	0.00120	0.00119	-
0.99038			

(see note below)

Marks 1	Marks 1	Marks 0.5	Marks 0.5
Net premium cash flow	Death Benefit Cash flow	Maturity Benefit Cash flow	Expense cash flow
-			
-			
-			
-			
63,625	275	-	500
63,588	288	-	499
63,549	304	-	499
-	321	-	499
-	342	-	498
-	365	-	498
-	393	-	498
-	424	-	497
-	458	-	497
-	498	-	496
-	544	891,346	-

NOTE: marks may also be awarded

Marks 0.5	Marks 0.5	Marks 0.5	Marks 0.5	Marks 1
PV Gross Premium	PV Net Premium	PV Death Benefit	PV Maturity Benefit	PV Expenses
136,010.22	173,167.81	3,075.73	521,151.52	3,848.00
142,810.73	181,826.20	3,229.51	547,209.09	4,040.40
97,480.14	124,111.43	3,102.24	574,569.55	3,717.71
49,913.30	63,549.47	2,954.59	603,298.03	3,379.18
-	-	2,783.48	633,462.93	3,024.05
-	-	2,585.14	665,136.07	2,651.50
-	-	2,355.63	698,392.88	2,260.68
-	-	2,089.76	733,312.52	1,850.71
-	-	1,782.12	769,978.15	1,420.65
-	-	1,426.50	808,477.05	969.53
-	-	1,016.40	848,900.91	496.33
-	-	543.98	891,345.95	-

ded, if first expense cash flow is assumed to occur with probability of 1; provided that discount factor is

Net premium reserve	351,059.44	Marks 2
Gross premium reserve	392,065.02	Marks 2
	(see note below)	

also consistent (i.e. discount factor applied on the cash flow should then be 1)

Time step	Equity index
0	5471.0
1	5689.8
2	5945.9
3	6659.4
4	7658.3
5	8424.1
6	8002.9
7	8963.3
8	10307.8
9	8761.6
10	9199.7
11	10119.6
12	11637.6
13	13965.1
14	15780.6
15	17043.0
16	19088.2
17	21378.8
18	23944.2
19	26817.5
20	30035.6

Age	Mortality
25	0.000435
26	0.000440
27	0.000447
28	0.000455
29	0.000465
30	0.000476
31	0.000490
32	0.000507
33	0.000527
34	0.000550
35	0.000577
36	0.000608
37	0.000644
38	0.000685
39	0.000733
40	0.000788
41	0.000851
42	0.000922
43	0.001003
44	0.001096
45	0.001201
46	0.001320
47	0.001455
48	0.001607
49	0.001778
50	0.001971

Accumulated value at end of 11 years 478,893 **Marks 1**

Beginning of year	Marks 1	Marks 1.5	Marks 1
	Investments	Return	Return credited
1	50000	4.0%	3.6%
2	50000	4.5%	4.0%
3	50000	12.0%	10.8%
4	0	15.0%	13.5%
5	0	10.0%	9.0%
6	0	-5.0%	-4.8%
7	40000	12.0%	11.4%
8	40000	15.0%	14.3%
9	40000	-15.0%	-14.3%
10	40000	5.0%	4.8%
11	40000	10.0%	9.5%
12		15.0%	14.3%

Mark 1.5

Accumulated value at end of year

51,800
105,923
172,763
196,086
213,733
203,581
271,349
355,716
339,327
397,345
478,893

Annualised return

5.08% Goal seek such that value at end of year 11 is same as part a

	Beginning of year	Investments	Return	Accumulated value at end
1		50000	5.1%	52,538
2		50000	5.1%	107,742
3		50000	5.1%	165,748
4		0	5.1%	174,161
5		0	5.1%	183,001
6		0	5.1%	192,289
7		40000	5.1%	244,079
8		40000	5.1%	298,497
9		40000	5.1%	355,678
10		40000	5.1%	415,760
11		40000	5.1%	478,893
12				

Marks 3

of year

0

Interest rate	5.08%
Force of interest	4.95% Marks 3

Time step	Equity index	Spot rate	Marks 3
0	-		
0	5,471		
1	5,690	4.00%	
2	5,946	4.25%	
3	6,659	6.77%	
4	7,658	8.77%	
5	8,424	9.02%	
6	8,003	6.54%	
7	8,963	7.31%	
8	10,308	8.24%	
9	8,762	5.37%	
10	9,200	5.33%	
11	10,120	5.75%	
12	11,638	6.49%	
13	13,965	7.47%	
14	15,781	7.86%	
15	17,043	7.87%	
16	19,088	8.12%	
17	21,379	8.35%	
18	23,944	8.55%	
19	26,818	8.73%	
20	30,036	8.89%	

Accumulated value at end of 11 years 466,437 **Marks 2**
 Annualised return 4.7% **Marks 3**
 Comment: Return is lower as charge is paid to avail additional pro

Age at start	Age at end	Beginning of year	Investments	Return
35	36		1 50000	3.6%
36	37		2 50000	4.0%
37	38		3 50000	10.8%
38	39		4 0	13.5%
39	40		5 0	9.0%
40	41		6 0	-4.8%
41	42		7 40000	11.4%
42	43		8 40000	14.3%
43	44		9 40000	-14.3%
44	45		10 40000	4.8%
45	46		11 40000	9.5%

tection benefit. Therefore, investor parts with some return to protect against mortality risk

Marks 2

Marks 2	Marks 2	Marks 2	Marks 2	
Accumulated value at end of year (before charge)	Mortality rate	Mortality charge	Fund value after mortality charge	
51,800	0.000608	125.98	51,674	5%
105,792	0.000644	272.52	105,519	5%
172,315	0.000685	472.14	171,843	5%
195,042	0.000733	571.86	194,470	5%
211,973	0.000788	668.14	211,304	5%
201,267	0.000851	685.11	200,582	5%
268,009	0.000922	988.42	267,020	5%
350,771	0.001003	1,407.29	349,363	5%
333,879	0.001096	1,463.73	332,415	5%
390,105	0.001201	1,874.06	388,231	5%
468,913	0.00132	2,475.86	466,437	5%

Accumulated value on
annualised return

52,330	
107,097	
164,417	
172,078	
180,095	
188,486	
239,132	
292,137	
347,612	
405,672	
466,437	(0)