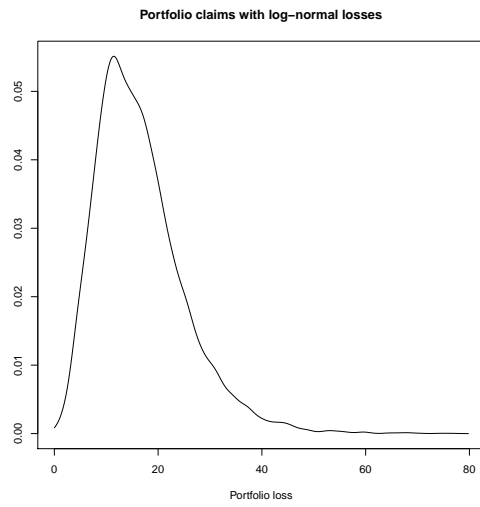


First reinsurance		Second reinsurance	
Premium		Premium	
a=0	9.9961	b=2	0.8041
a=1	4.4201	b=4	0.4146
a=4	1.1080	b=6	0.2493
a=6	0.6078		

Exercises 3.4 and 3.5. Reinsurance premia

	Mean	Sd
Monte Carlo	16.518	8.563
Exact	16.487	8.596

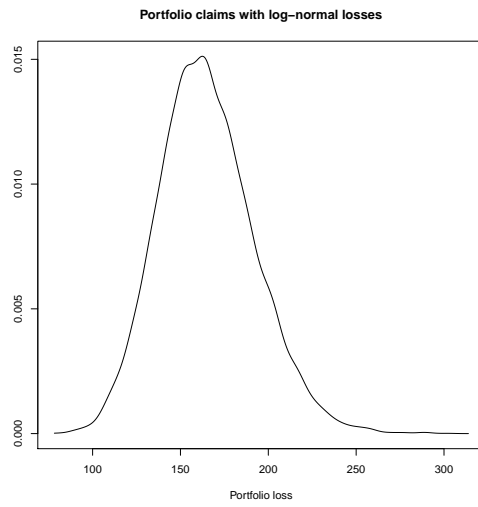
Exercise 3.6. Mean and Sd portfolio



Exercise 3.7a

	0.05	0.01
Reserve	32.17	43.98
Mean	16.52	16.52

Exercise 3.7b. Portfolio mean and reserve



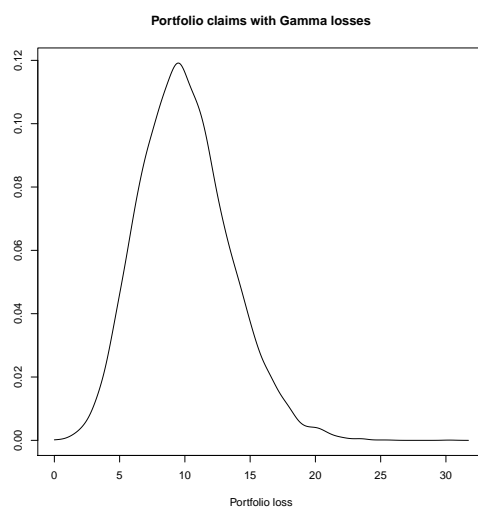
Exercise 3.8a

	0.05	0.01
Reserve	212.2	235.2
Mean	165.0	165.0

Exercise 3.8b. Portfolio mean and reserve

	Mean	Sd
Monte Carlo	10.004	3.489
Exact	10.000	3.464

Exercise 3.9b. Mean and Sd portfolio



Exercise 3.9c

	0.05	0.01
Reserve	16.08	19.22
Mean	10.00	10.00

Exercise 3.9d. Portfolio mean and reserve

	Mean	Sd
Monte Carlo	1.650	2.133
Exact	1.649	2.161

Exercise 3.10b. Mean and Sd portfolio

a	0.05	0.01
0.5	7.50	8.80
1.0	12.88	15.14
2.0	15.85	18.78
100.0	16.12	19.16

Exercise 3.11b. 95% and 99% cedent reserve.

a	0.05	0.01
0.5	8.93	10.79
1.0	3.81	4.97
2.0	0.56	1.09
100.0	0.00	0.006

Exercise 3.12b. 95% and 99% re-insurer reserve.

a	π^{re}
0.5	5.157
1.0	1.744
2.0	0.087
100.0	0.000

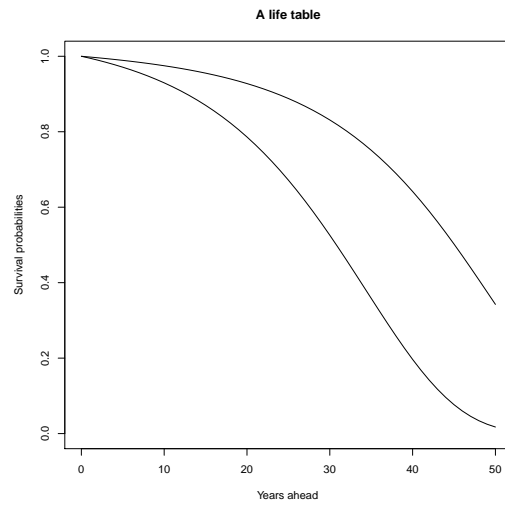
Exercise 3.12c. Re-insurance premium.

$$\pi^{\text{re}} = 3.8585$$

Exercise 3.13a. Pure premium re-insurance..

	0.05	0.01
Cedent	15	18.1
Re-insurer	17.31	25

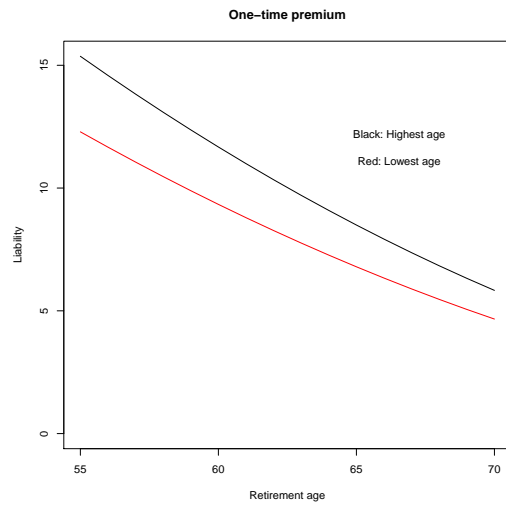
Exercise 3.13bc. 95% and 99% cedent and re-insurer reserve.



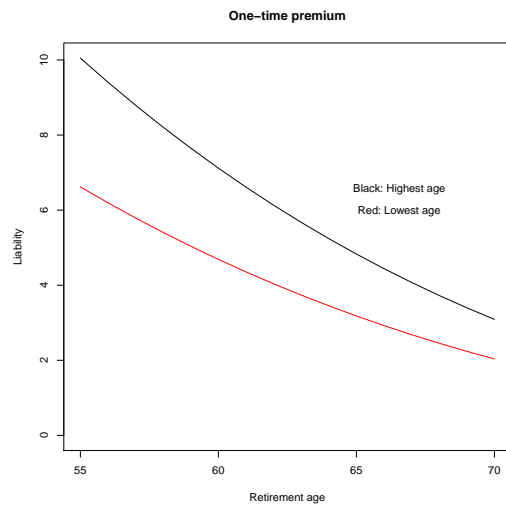
Exercise 3.17d

l_0	$r = 0.02$	$r = 0.04$
20	4.939	1.729
35	3.182	3.182
50	5.998	5.998
65	12.414	12.414

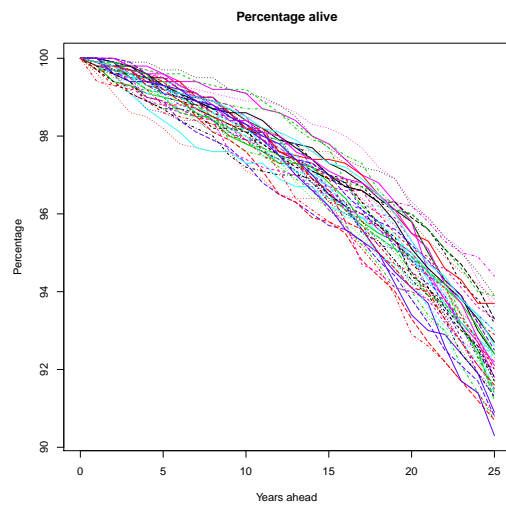
Exercise 3.18b. One-time premia.



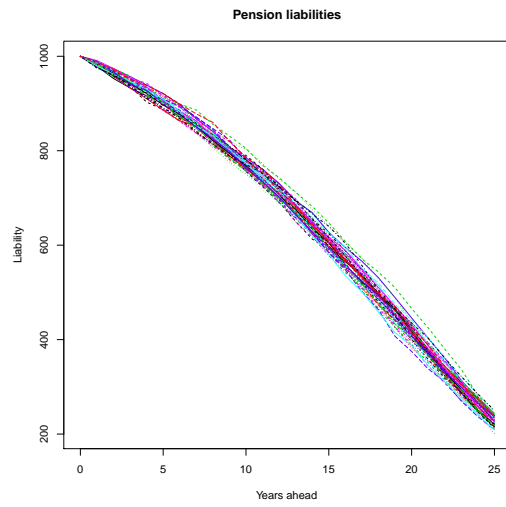
Exercise 3.19c



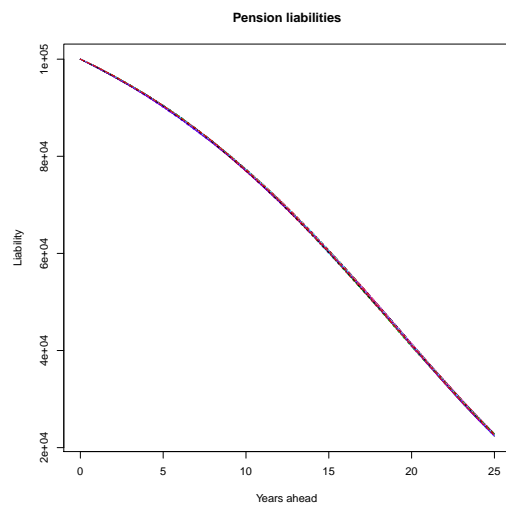
Exercise 3.19d



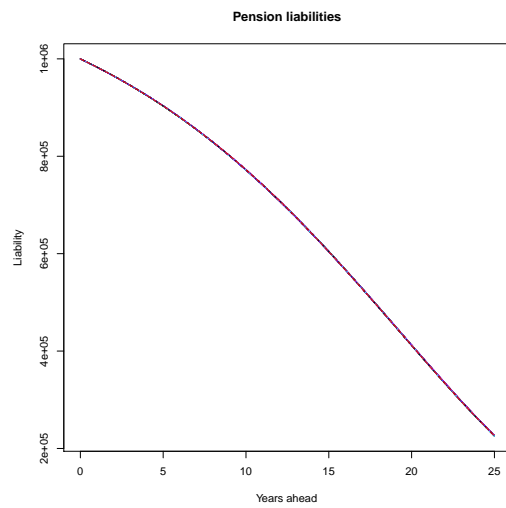
Exercise 3.20c



Exercise 3.21b



Exercise 3.21c



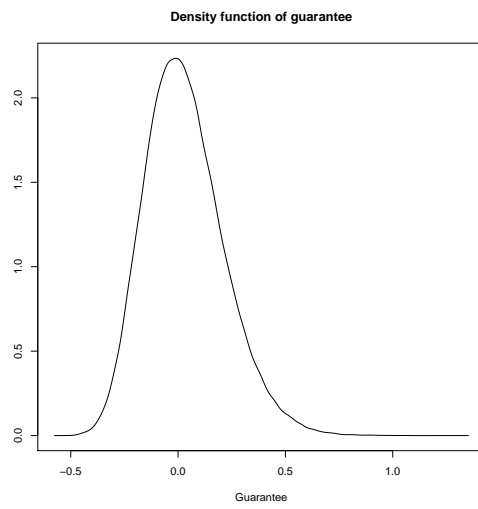
Exercise 3.21c

r_g	π
-0.02	0.07450
0.00	0.08393
0.02	0.09398
0.04	0.10464
0.08	0.12769
0.10	0.14005

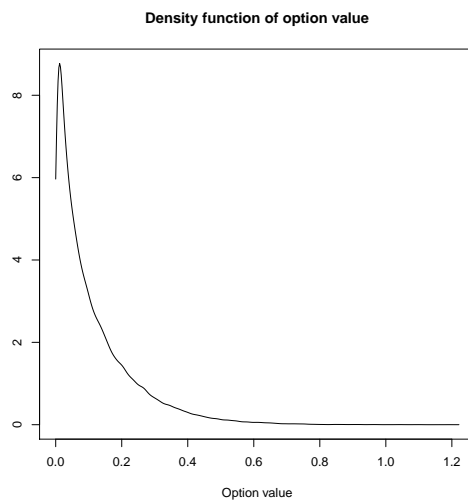
Exercise 3.23b

$m = 10000$	0.10337	0.10604	0.10499
$m = 1000000$	0.10452	0.10460	0.10444
	Exact=0.10464		

Exercise 3.24b



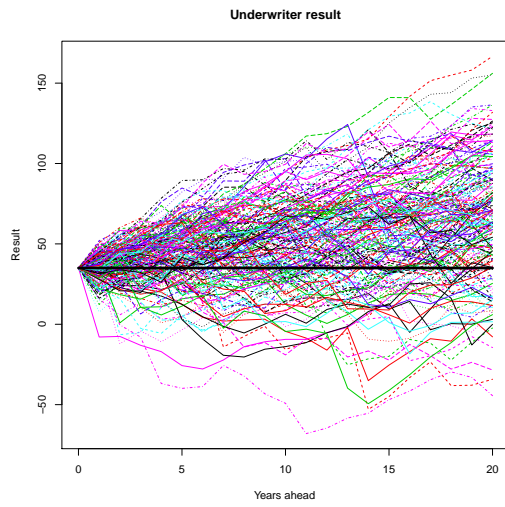
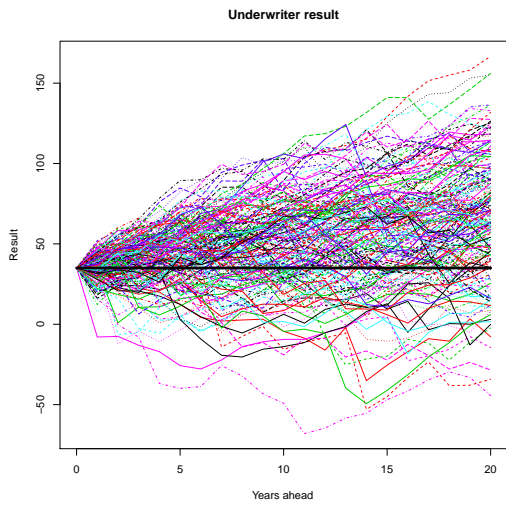
Exercise 3.26b



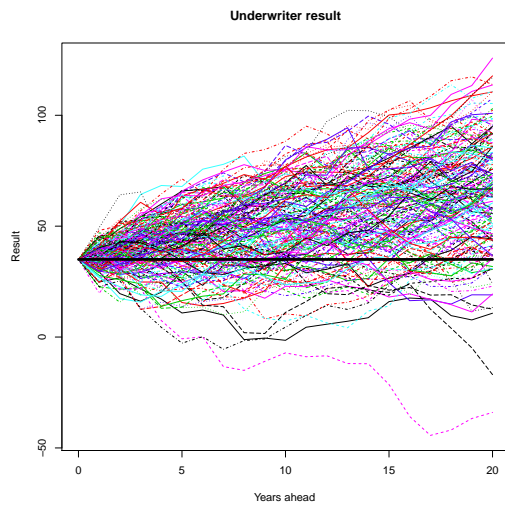
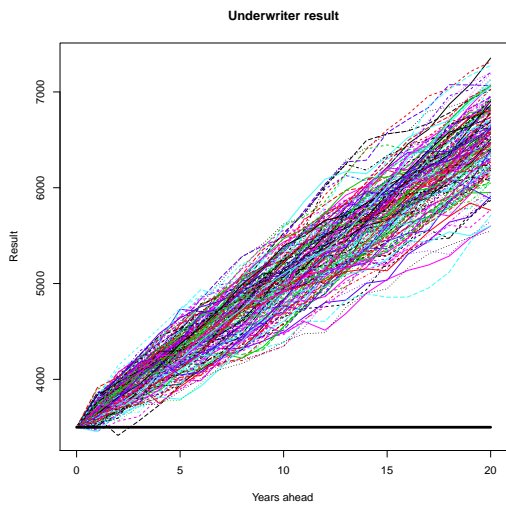
Exercise 3.27b

r_c	π
0.09	0.02862
0.12	0.03861
0.15	0.04748
0.50	0.09588

Exercise 3.29c



Exercise 3.30, average profit positive (left) and zero (right)



Exercises 3.31 (left) and 3.32 (right)

K	0.05	0.01
1	14.6	26.4
5	30.2	46.7
10	40.3	64.1
20	51.8	82.6

Exercise 3.33