Reading: Odomirok.19-RBC (RBC - R3) 1a-Question

Model: n/a

Problem Type: Calculate the RBC charge for R₃

Given Credit-Related Assets

NON-INVESTED ASSETS	amount	RBC factor
investment income due & accrued	0	0.01
amounts receivable related to uninsured plans	0	0.05
federal income tax recoverable	27,000	0.05
guaranty funds receivable or on deposit	0	0.05
recoverable (parents/subs/affiliates)	7,900	0.05
aggregate write-ins for other than invested assets	6,480	0.05
REINSURANCE RECOVERABLES	amount	RBC factor
amount subject to RBC (gross of reins provision)	68,900	0.10
provision for reinsurance (allocated)	2,670	n/a

^{*} assume this P&C insurer has no health credit risk

U/W risk (you need this to finish the R $_3$ calculation)

RBC charge for R ₄	5,600

R₃ = 5,381

 ${f R_3}$ = charge for non-invested assets + charge for reins. recov. + charge for health credit risk = 2,069 + 3,312 + 0
= 5,381

charges for NON-INVESTED ASSETS

investment income due & accrued 0
amounts receivable related to uninsured plans 0
federal income tax recoverable 1,350
guaranty funds receivable or on deposit 0
recoverable (parents/subs/affiliates) 395
aggregate write-ins for other than invested assets 324

2,069 <== charge for non-invested assets

pre-allocation charges for REINSURANCE RECOVERABLES

6,623 (subtract reinsurance provision before applying RBC factor)

Check R₃/R₄ allocation of RBC for reinsurance recoverables

RBC charge for R_4 = 5,600 (RBC charge for NON-INVESTED ASSETS) + (1/2)x(RBC charge for reins recoverables) = 5,381

Since R_4 is greater ==> put 50% of 6,623 into R_3

final R_3 charge for reins recovs = 3.312 <== charge for reinsurance recoverables

Reading: Odomirok.19-RBC (RBC - R3) 2a-Question

Model: n/a

Problem Type: Calculate the RBC charge for R₃

Given Credit-Related Assets

NON-INVESTED ASSETS	amount	RBC factor
investment income due & accrued	0	0.01
amounts receivable related to uninsured plans	4,770	0.05
federal income tax recoverable	45,000	0.05
guaranty funds receivable or on deposit	20,500	0.05
recoverable (parents/subs/affiliates)	14,400	0.05
aggregate write-ins for other than invested assets	10,620	0.05
REINSURANCE RECOVERABLES	amount	RBC factor
amount subject to RBC (gross of reins provision)	155,300	0.10
provision for reinsurance (allocated)	3,380	n/a

^{*} assume this P&C insurer has no health credit risk

U/W risk (you need this to finish the R $_3$ calculation)

RBC charge for R ₄	10,200

R₃ = 19,957

R₃ = charge for non-invested assets + charge for reins. recov. + charge for health credit risk

= 4,765 + 15,192 + 0 = 19,957

charges for NON-INVESTED ASSETS

investment income due & accrued 0
amounts receivable related to uninsured plans 239
federal income tax recoverable 2,250
guaranty funds receivable or on deposit 1,025
recoverable (parents/subs/affiliates) 720
aggregate write-ins for other than invested assets 531

4,765 <== charge for non-invested assets

pre-allocation charges for REINSURANCE RECOVERABLES

15,192 (subtract reinsurance provision before applying RBC factor)

Check R₃/R₄ allocation of RBC for reinsurance recoverables

RBC charge for R₄ = 10,200

(RBC charge for NON-INVESTED ASSETS) + (1/2)x(RBC charge for reins recoverables) = 12,361

Since R_4 less than or equal ==> put 100% 15,192 into R_3

final R_3 charge for reins recovs = 15,192 <== charge for reinsurance recoverables