

Reading: Odomirok.19-RBC
Model: n/a
Problem Type: Calculate the RBC charge for R_3

(RBC - R3) 1a-Question

Given **Credit-Related Assets**

NON-INVESTED ASSETS	amount	RBC factor
investment income due & accrued	12,300	0.01
amounts receivable related to uninsured plans	1,380	0.05
guaranty funds receivable or on deposit	0	0.05
recoverable (parents/subs/affiliates)	8,200	0.05
aggregate write-ins for other than invested assets	0	0.05
REINSURANCE RECOVERABLES	RBC charge	
C35 Credit Risk on Collateralized Recoverables	4,620	n/a
C36 Credit Risk on Uncollateralized Recoverables	335	n/a

* C35 refers to Schedule F, Part 3, Column (35)

* C36 refers to Schedule F, Part 3, Column (36)

** 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	7,600
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$$R_3 = 3,080$$

$$\begin{aligned}
 R_3 &= \text{charge for non-invested assets} + \text{charge for reins. recov.} + \text{charge for health credit risk} \\
 &= 602 + 2,478 + 0 \\
 &= 3,080 \text{ } \leftarrow \text{final answer}
 \end{aligned}$$

charges for NON-INVESTED ASSETS

			<u>amount</u>		<u>RBC factor</u>
investment income due & accrued	123	=	12,300	x	0.01
amounts receivable related to uninsured plans	69	=	1,380	x	0.05
guaranty funds receivable or on deposit	0	=	0	x	0.05
recoverable (parents/subs/affiliates)	410	=	8,200	x	0.05
aggregate write-ins for other than invested assets	0	=	0	x	0.05
	<u>602</u>				

602 \leftarrow charge for non-invested assets

pre-allocation charges for REINSURANCE RECOVERABLES

$$4,955 = (\text{collateralized} + \text{uncollateralized risk charge})$$

Check R_3/R_4 allocation of RBC for reinsurance recoverables

$$\begin{aligned}
 \text{RBC charge for } R_4 &= 7,600 \\
 (\text{RBC charge for NON-INVESTED ASSETS}) + (1/2) \times (\text{RBC charge for reins recoverables}) &= 3,080
 \end{aligned}$$

Since R_4 is greater \Rightarrow put 50% of 4,955 into R_3

$$\text{final } R_3 \text{ charge for reins recovs} = \underline{2,478} \leftarrow \text{charge for reinsurance recoverables}$$

Reading: Odomirok.19-RBC
Model: n/a
Problem Type: Calculate the RBC charge for R_3

(RBC - R3) 2a-Question

Given **Credit-Related Assets**

NON-INVESTED ASSETS	amount	RBC factor
investment income due & accrued	18,400	0.01
amounts receivable related to uninsured plans	3,360	0.05
guaranty funds receivable or on deposit	4,900	0.05
recoverable (parents/subs/affiliates)	8,400	0.05
aggregate write-ins for other than invested assets	0	0.05
REINSURANCE RECOVERABLES	RBC charge	
C35 Credit Risk on Collateralized Recoverables	6,480	n/a
C36 Credit Risk on Uncollateralized Recoverables	315	n/a

* C35 refers to Schedule F, Part 3, Column (35)

* C36 refers to Schedule F, Part 3, Column (36)

** 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	2,100
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$$R_3 = 7,812$$

$$\begin{aligned}
 R_3 &= \text{charge for non-invested assets} + \text{charge for reins. recov.} + \text{charge for health credit risk} \\
 &= 1,017 + 6,795 + 0 \\
 &= 7,812 \text{ } \leftarrow \text{final answer}
 \end{aligned}$$

charges for NON-INVESTED ASSETS

			<u>amount</u>		<u>RBC factor</u>
investment income due & accrued	184	=	18,400	x	0.01
amounts receivable related to uninsured plans	168	=	3,360	x	0.05
guaranty funds receivable or on deposit	245	=	4,900	x	0.05
recoverable (parents/subs/affiliates)	420	=	8,400	x	0.05
aggregate write-ins for other than invested assets	0	=	0	x	0.05
	<u>1,017</u>				

\leftarrow charge for non-invested assets

pre-allocation charges for REINSURANCE RECOVERABLES

$$6,795 = (\text{collateralized} + \text{uncollateralized risk charge})$$

Check R_3/R_4 allocation of RBC for reinsurance recoverables

$$\begin{aligned}
 \text{RBC charge for } R_4 &= 2,100 \\
 (\text{RBC charge for NON-INVESTED ASSETS}) + (1/2) \times (\text{RBC charge for reins recoverables}) &= 4,415
 \end{aligned}$$

Since R_4 less than or equal \Rightarrow put 100% 6,795 into R_3

$$\text{final } R_3 \text{ charge for reins recovs} = \underline{6,795} \leftarrow \text{charge for reinsurance recoverables}$$