



# NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Date: 6/23/21

*Virtual Meeting*

## **CAPITAL ADEQUACY (E) TASK FORCE**

Wednesday June 30, 2021

3:00 – 4:00 p.m. ET / 2:00 – 3:00 p.m. CT / 1:00 p.m. – 2:00 p.m. MT / 12:00 p.m. – 1:00 p.m. PT

### **ROLL CALL**

Judith L. French, Chair	Ohio	Sharon P. Clark	Kentucky
Doug Slape, Vice Chair	Texas	Grace Arnold	Minnesota
Jim L. Ridling	Alabama	Chlora Lindley-Myers	Missouri
Lori K. Wing-Heier	Alaska	Eric Dunning	Nebraska
Ricardo Lara	California	Marlene Caride	New Jersey
Andrew N. Mais	Connecticut	Mike Causey	North Carolina
Karima M. Woods	District of Columbia	Glen Mulready	Oklahoma
David Altmaier	Florida	Raymond G. Farmer	South Carolina
Dana Popish Severinghaus	Illinois	Mike Kreidler	Washington
Doug Ommen	Iowa	Mark Afable	Wisconsin
Vicki Schmidt	Kansas		

NAIC Support Staff: Jane Barr

### **AGENDA**

1. Consider Adoption of Proposal 2021-04-CA (Investment Income in Health Underwriting Factors)—*Steve Drutz (WA)* Attachment A
2. Consider Adoption of Proposal 2021-07-CA (Receivables for Securities Factors)—*Tom Botsko (OH)* Attachment B
3. Consider Adoption of Proposal 2021-09-H (Health Bond Factors)—*Steve Drutz (WA)* Attachment C
4. Consider Adoption of Proposal 2021-06-L (modified) (Real Estate Factors)—*Philip Barlow (DC)* Attachment D
5. Consider Adoption of Proposal 2021-11-L (Life Bond Factors)—*Philip Barlow (DC)* Attachment E
6. Consider Adoption of Proposal 2021-12-L (Reinsurance)—*Philip Barlow (DC)* Attachment F
7. Consider Adoption of Proposal 2021-13-L (Longevity Risk Factors and Instructions)—*Philip Barlow (DC)* Attachment G
8. Consider Adoption of Proposal 2021-03-P (Credit Risk Instruction Modification)—*Tom Botsko (OH)* Attachment H



## NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

- 9. Consider Adoption of Proposal 2021-05-P (Underwriting Risk Line 1 Factors)—*Tom Botsko (OH)* Attachment I
- 10. Consider Adoption of Proposal 2021-08-P (P/C Bond Factors) —*Tom Botsko (OH)* Attachment J
- 11. Discuss Any Other Matters Brought Before the Task Force
- 12. Adjournment

W:\QA\RBC\CADTF\2021Meeting Materials\June 30 cc

## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Capital Adequacy (E) Task Force | <input type="checkbox"/> Health RBC (E) Working Group     | <input type="checkbox"/> Life RBC (E) Working Group    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup              | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Longevity Risk (A/E) Subgroup |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup           | <input type="checkbox"/> P/C RBC (E) Working Group        |  |

<b>DATE:</b> <u>3-17-21</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Crystal Brown</u>	Agenda Item # <u>2021-04-CA</u>
<b>TELEPHONE:</b> <u>816-783-8146</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>cbrown@naic.org</u>	<b><u>DISPOSITION</u></b>
<b>ON BEHALF OF:</b> <u>Health RBC (E) Working Group</u>	<input type="checkbox"/> ADOPTED _____
<b>NAME:</b> <u>Steve Drutz</u>	<input type="checkbox"/> REJECTED _____
<b>TITLE:</b> <u>Chief Financial Analyst/Chair</u>	<input type="checkbox"/> DEFERRED TO _____
<b>AFFILIATION:</b> <u>WA Office of Insurance Commissioner</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____
<b>ADDRESS:</b> <u>PO Box 40255</u>	<input checked="" type="checkbox"/> EXPOSED <u>4-16-21, 5/21/21</u>
<u>Olympia, WA 98504-0255</u>	<input type="checkbox"/> OTHER (SPECIFY) _____

#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Health RBC Blanks       | <input checked="" type="checkbox"/> Property/Casualty RBC Blanks       | <input checked="" type="checkbox"/> Life and Fraternal RBC Instructions |
| <input checked="" type="checkbox"/> Health RBC Instructions | <input checked="" type="checkbox"/> Property/Casualty RBC Instructions | <input checked="" type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____                        |  |   |

#### DESCRIPTION OF CHANGE(S)

Incorporate investment income into the Underwriting Risk – Experience Fluctuation Risk factors for columns 1-3. The base underwriting factors would be adjusted for Comprehensive Medical, Medicare Supplement and Dental and Vision.

#### REASON OR JUSTIFICATION FOR CHANGE \*\*

Incorporated investment income into Columns 1-3 on the Underwriting Risk – Experience Fluctuation Risk page. The American Academy of Actuaries provided recommended factors to the Working Group. The Academy found that due to no claims lag in Stand-Alone Medicare Part D coverage, the investment income adjustment would be negligible and the RBC factors would not be impacted.

The Working Group will continue to work with the Academy to look at the potential to incorporate an investment income adjustment to the factors for the other health lines of business for 2022 or later.

#### Additional Staff Comments:

These changes will also need to be incorporated into the Life and P/C formula.

3-17-21 cgb The Working Group exposed the proposal for 30-days with comments due back on April 16, 2021.

4-23-21 cgb Two comment letters were received during the comment period from UHG and AHIP/BCBSA. The WG discussed the comments and agreed to refer the proposal to the Capital Adequacy (E) Task Force with the 0.5% investment yield for exposure for all lines of business.

04-27-21 cgb The American Academy of Actuaries provided an updated letter that included the factors to two-digit rounding for each tier. A copy of the letter is included in the proposal.

4-29-21 cgb The TF exposed the proposal until 5/21/21.

5-25-21 cgb One comment letter was received from the TF exposure. The WG agreed to refer the proposal to the TF for consideration of adoption on the June 30 call.

5-25-21 cgb EDITORIAL NOTE: the factors are hard coded into page PR020 and LR020 of the blank and forecasting file. These pages were updated to reflect the new factors as were included in the instructions.

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**\*\* This section must be completed on all forms.**

**Revised 2-2019**

**HEALTH****UNDERWRITING RISK - L(1) THROUGH L(21)  
XR012****DETAIL ELIMINATED TO CONSERVE SPACE**

Line (12) Underwriting Risk Claims Ratio. For Columns (1) through (5), Line (11) / Line (6). If either Line (6) or Line (11) is zero or negative, Line (12) is zero.

Line (13) Underwriting Risk Factor. A weighted average factor based on the amount reported in Line (6), Underwriting Risk Revenue. The factors for Column 1-3 have incorporated investment income yield of 0.5%.

	\$0 – \$3 Million	\$3 – \$25 Million	Over \$25 Million
Comprehensive Medical & Hospital	0.1493450	0.1493450	0.0893090
Medicare Supplement	0.10435	0.06637	0.066367
Dental & Vision	0.119520	0.07556	0.07556
Stand-Alone Medicare Part D Coverage	0.251	0.251	0.151
Other Health	0.130	0.130	0.130
Other Non-Health	0.130	0.130	0.130

**DETAIL ELIMINATED TO CONSERVE SPACE****PROPERTY & CASUALTY**

PR020 - Underwriting Risk – Premium Risk for Comprehensive Medical, Medicare Supplement and Dental and Vision

**DETAIL ELIMINATED TO CONSERVE SPACE**

Line (10) Underwriting Risk Factor

A weighted average factor based on the amount reported in Line (5), Underwriting Risk Revenue. The factors for Column 1-3 have incorporated investment income yield of 0.5%.

	\$0 - \$3 Million	\$3-\$25 Million	Over \$25 Million
Comprehensive Medical	0.149350	0.149350	0.089390
Medicare Supplement	0.10435	0.06637	0.06637
Dental & Vision	0.119520	0.07556	0.0761BC10755
Stand-Alone Medicare Part D Coverage	0.251	0.251	0.151

**DETAIL ELIMINATED TO CONSERVE SPACE**

**LIFE**

**Underwriting Risk – Experience Fluctuation Risk**

LR020

**DETAIL ELIMINATED TO CONSERVE SPACE**

Line (10) Underwriting Risk Factor

A weighted average factor based on the amount reported in Line (5), Underwriting Risk Revenue. The factors for Column 1-3 have incorporated investment income.

	\$0 - \$3 Million	\$3 - \$25 Million	Over \$25 Million
Comprehensive Medical	0.149350	0.149350	0.089390
Medicare Supplement	0.10435	0.06637	0.06637
Dental	0.119520	0.07556	0.075576BC2
Stand-Alone Medicare Part D Coverage	0.251	0.251	0.151

**DETAIL ELIMINATED TO CONSERVE SPACE**

UNDERWRITING RISK

Option 1 - 0.5% Investment Return

Experience Fluctuation Risk

		(1) Comprehensive Medical	(2) Medicare Supplement	(3) Dental & Vision	(4) Stand-Alone Medicare Part D Coverage	(5) Other Health	(6) Other Non-Health	(7) Total
(1) †	Premium							
(2) †	Title XVIII-Medicare		XXX	XXX	XXX	XXX	XXX	
(3) †	Title XIX-Medicaid		XXX	XXX	XXX	XXX	XXX	
(4) †	Other Health Risk Revenue		XXX				XXX	
(5)	Medicaid Pass-Through Payments Reported as Premiums		XXX	XXX	XXX	XXX	XXX	
(6)	Underwriting Risk Revenue = Lines (1) + (2) + (3) + (4) - (5)							
(7) †	Net Incurred Claims						XXX	
(8)	Medicaid Pass-Through Payments Reported as Claims		XXX	XXX	XXX	XXX	XXX	
(9)	Total Net Incurred Claims Less Medicaid Pass-Through Payments Reported as Claims = Lines (7) - (8)						XXX	
(10) †	Fee-For-Service Offset		XXX				XXX	
(11)	Underwriting Risk Incurred Claims = Lines (9) - (10)						XXX	
(12)	Underwriting Risk Claims Ratio = For Column (1) through (5), Line (11)/(6)						1.000	XXX
(13)	Underwriting Risk Factor*					0.130	0.130	XXX
(14)	Base Underwriting Risk RBC = Lines (6) x (12) x (13)							
(15)	Managed Care Discount Factor						XXX	XXX
(16)	RBC After Managed Care Discount = Lines (14) x (15)						XXX	
(17) †	Maximum Per-Individual Risk After Reinsurance						XXX	XXX
(18)	Alternate Risk Charge **						XXX	XXX
(19)	Alternate Risk Adjustment						XXX	XXX
(20)	Net Alternate Risk Charge***						XXX	
(21)	Net Underwriting Risk RBC (MAX{Line (16), Line (20)}) for Columns (1) through (5), Column (6), Line (14)							

TIERED RBC FACTORS*						
	Comprehensive Medical	Medicare Supplement	Dental & Vision	Stand-Alone Medicare Part D Coverage	Other Health	Other Non-Health
\$0 - \$3 Million	0.1493	0.1043	0.1195	0.251	0.130	0.130
\$3 - \$25 Million	0.1493	0.0663	0.0755	0.251	0.130	0.130
Over \$25 Million	0.0893	0.0663	0.0755	0.151	0.130	0.130

ALTERNATE RISK CHARGE**						
** The Line (15) Alternate Risk Charge is calculated as follows:						
LESSER OF:	\$1,500,000 or 2 x Maximum Individual Risk	\$50,000 or 2 x Maximum Individual Risk	\$50,000 or 2 x Maximum Individual Risk	\$150,000 or 6 x Maximum Individual Risk	\$50,000 or 2 x Maximum Individual Risk	N/A

Denotes items that must be manually entered on filing software.

† The Annual Statement Sources are found on page XR013.

\* This column is for a single result for the Comprehensive Medical & Hospital, Medicare Supplement and Dental/Vision managed care discount factor.

\*\*\* Limited to the largest of the applicable alternate risk adjustments, prorated if necessary.

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**UNDERWRITING RISK - PREMIUM RISK FOR COMPREHENSIVE MEDICAL, MEDICARE SUPPLEMENT AND DENTAL & VISION PR020**

(Experience Fluctuation Risk in Life RBC Formula)

	(1)	(2)	(3)	(4)	(5)
Line of Business	Comprehensive Medical	Medicare Supplement	Dental & Vision	Stand-Alone Medicare Part D Coverage	TOTAL
(1.1) Premium – Individual	Statement Value	0	0	0	0
(1.2) Premium – Group	0	0	0	0	0
(1.3) Premium – Total = Line (1.1) + Line (1.2)	0	0	0	0	0
(2) Title XVIII-Medicare†	0	XXX	XXX	XXX	0
(3) Title XIX-Medicaid†	0	XXX	XXX	XXX	0
(4) Other Health Risk Revenue†	0	XXX	0	0	0
(5) Underwriting Risk Revenue = Lines (1.3) + (2) + (3) + (4)	0	0	0	0	0
(6) Net Incurred Claims	0	0	0	0	0
(7) Fee-for-Service Offset†	0	XXX	0	0	0
(8) Underwriting Risk Incurred Claims = Line (6) – Line (7)	0	0	0	0	0
(9) Underwriting Risk Claims Ratio = Line (8) / Line (5)	0.000	0.000	0.000	0.000	XXX
(10.1) Underwriting Risk Factor for Initial Amounts Of Premium‡	0.1493	0.1043	0.1195	0.251	XXX
(10.2) Underwriting Risk Factor for Excess of Initial Amount‡	0.0893	0.0663	0.0760	0.151	XXX
(10.3) Composite Underwriting Risk Factor	0.000	0.000	0.000	0.000	XXX
(11) Base Underwriting Risk RBC = Line (5) x Line (9) x Line (10.3)	0	0	0	0	0
(12) Managed Care Discount Factor = PR021 Line (12)	0.000	0.000	0.000	0.000	XXX
(13) Base RBC After Managed Care Discount = Line (11) x Line (12)	0	0	0	0	0
(14) RBC Adjustment For Individual = [Line(1.1) x 1.2 + Line (1.2)] / Line (1.3) x Line (13)§	0	0	0	0	0
(15) Maximum Per-Individual Risk After Reinsurance†	0	0	0	0	XXX
(16) Alternate Risk Charge*	0	0	0	0	0
(17) Net Alternate Risk Charge£	0	0	0	0	0
(18) Net Underwriting Risk RBC (Maximum of Line (14) or Line (17))	0	0	0	0	0

† Source is company records unless already included in premiums.

‡ For Comprehensive Medical the Initial Premium Amount is \$25,000,000 or the amount in Line (1.3) if smaller. For Medicare Supplement and Dental & Vision the Initial Premium Amount is \$3,000,000 or the amount in Line (1.3) if smaller. For Stand-Alone Medicare Part D the Initial Premium Amount is \$25,000,000 or the amount in Line (1.3) if smaller.

§ Formula applies only to Column (1), for all other columns Line (14) should equal Line (13).

\* The Line (16) Alternate Risk Charge is calculated as follows:

LESSER OF:	\$1,500,000	\$50,000	\$50,000	\$150,000	Maximum of Columns (1), (2), (3) and (4)
	or 2 x Maximum Individual Risk	or 2 x Maximum Individual Risk	or 2 x Maximum Individual Risk	or 6 x Maximum Individual Risk	

£ Applicable only if Line (16) for a column equals Line (16) for Column (5), otherwise zero.

Denotes items that must be manually entered on the filing software.



**UNDERWRITING RISK**

**Experience Fluctuation Risk**

	Line of Business	(1) Comprehensive Medical	(2) Medicare Supplement	(3) Dental & Vision	(4) Stand-Alone Medicare Part D Coverage	(5) Total
(1.1)	Premium – Individual	\$0	\$0	\$0	\$0	\$0
(1.2)	Premium – Group	\$0	\$0	\$0	\$0	\$0
(1.3)	Premium – Total = Line (1.1) + Line (1.2)	\$0	\$0	\$0	\$0	\$0
(2)	Title XVIII-Medicare†	\$0	XXX	\$0	\$0	\$0
(3)	Title XIX-Medicaid†	\$0	XXX	\$0	\$0	\$0
(4)	Other Health Risk Revenue†	\$0	XXX	\$0	\$0	\$0
(5)	Underwriting Risk Revenue = Lines (1.3) + (2) + (3) + (4)	\$0	\$0	\$0	\$0	\$0
(6)	Net Incurred Claims	\$0	\$0	\$0	\$0	\$0
(7)	Fee-for-Service Offset†	\$0	XXX	\$0	\$0	\$0
(8)	Underwriting Risk Incurred Claims = Line (6) – Line (7)	\$0	\$0	\$0	\$0	\$0
(9)	Underwriting Risk Claims Ratio = Line (8) / Line (5)	0.000	0.000	0.000	0.000	XXX
(10.1)	Underwriting Risk Factor for Initial Amounts Of Premium‡	0.1493	0.1043	0.1195	0.251	XXX
(10.2)	Underwriting Risk Factor for Excess of Initial Amount‡	0.0893	0.0663	0.0755	0.151	XXX
(10.3)	Composite Underwriting Risk Factor	0.000	0.000	0.000	0.000	XXX
(11)	Base Underwriting Risk RBC = Line (5) x Line (9) x Line (10.3)	\$0	\$0	\$0	\$0	\$0
(12)	Managed Care Discount Factor = LR022 Line (17)	0.000	0.000	0.000	0.000	XXX
(13)	Base RBC After Managed Care Discount = Line (11) x Line (12)	\$0	\$0	\$0	\$0	\$0
(14)	RBC Adjustment For Individual = [Line(1.1) x 1.2 + Line (1.2)] / Line (1.3) x Line (13)§	\$0	\$0	\$0	\$0	\$0
(15)	Maximum Per-Individual Risk After Reinsurance†	\$0	\$0	\$0	\$0	XXX
(16)	Alternate Risk Charge*	\$0	\$0	\$0	\$0	\$0
(17)	Net Alternate Risk Charge£	\$0	\$0	\$0	\$0	\$0
(18)	Net Underwriting Risk RBC (Maximum of Line (14) or Line (17) )	\$0	\$0	\$0	\$0	\$0

† Source is company records unless already included in premiums.

‡ For Comprehensive Medical the Initial Premium Amount is \$25,000,000 or the amount in Line (1.3) if smaller. For Medicare Supplement and Dental & Vision, the Initial Premium Amount is \$3,000,000 or the amount in Line (1.3) if smaller. For Stand-Alone Medicare Part D the Initial Premium Amount is \$25,000,000 or the amount in Line (1.3) if smaller.

§ Formula applies only to Column (1), for all other columns Line (14) should equal Line (13).

\* The Line (16) Alternate Risk Charge is calculated as follows:

LESSER OF:	\$1,500,000	\$50,000	\$50,000	\$150,000	Maximum of Columns 1), (2), (3) and (4)
	or 2 x Maximum Individual Risk	or 2 x Maximum Individual Risk	or 2 x Maximum Individual Risk	or 6 x Maximum Individual Risk	

£ Applicable only if Line (16) for a column equals Line (16) for Column (5), otherwise zero.

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## Capital Adequacy (E) Task Force RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Capital Adequacy (E) Task Force | <input type="checkbox"/> Health RBC (E) Working Group     | <input type="checkbox"/> Life RBC (E) Working Group    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup              | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup           | <input type="checkbox"/> P/C RBC (E) Working Group        | <input type="checkbox"/> Stress Testing (E) Subgroup   |

<b>DATE:</b> <u>4/29/2021</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Jane Barr</u> <b>TELEPHONE:</b> _____ <b>EMAIL ADDRESS:</b> _____ <b>ON BEHALF OF:</b> <u>Capital Adequacy Task Force</u> <b>NAME:</b> <u>Tom Botsko</u> <b>TITLE:</b> <u>Chair</u> <b>AFFILIATION:</b> <u>Ohio Department of Insurance</u> <b>ADDRESS:</b> <u>50 West Town Street, Suite 300</u> <u>Columbus, OH 43215</u>	Agenda Item # <u>2021-07-CA</u> Year <u>2021</u>  <b style="text-align: center;"><u>DISPOSITION</u></b> <input type="checkbox"/> ADOPTED _____ <input type="checkbox"/> REJECTED _____ <input type="checkbox"/> DEFERRED TO _____ <input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____ <input type="checkbox"/> EXPOSED _____ <input type="checkbox"/> OTHER (SPECIFY) _____

### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- Health RBC Blanks    
  Property/Casualty RBC Blanks    
  Life and Fraternal RBC Instructions  
 Health RBC Instructions    
  Property/Casualty RBC Instructions    
  Life and Fraternal RBC Blanks  
 OTHER \_\_\_\_\_

### DESCRIPTION OF CHANGE(S)

Update the RBC factors for Receivables for Securities.

### REASON OR JUSTIFICATION FOR CHANGE \*\*

Based on a weighted average calculation of bonds, common, preferred and hybrid stock investments, the receivable for securities factors were adjusted for all RBC forecasting blanks.

### Additional Staff Comments:

\*\* This section must be completed on all forms.

Revised 2-2019

	<b>Proposed 2021</b>	<b>2018</b>	<b>2016</b>	<b>2014</b>
<b>Life</b>	<b>0.015</b>	0.014	0.014	0.014
<b>Health</b>	<b>0.024</b>	0.025	0.024	0.024
<b>P/C</b>	<b>0.020</b>	0.025	0.023	0.024

## Proposed 2021 Life RBC Factor for Receivables for Securities

	(1)	(2)	-3.0000	(4)	(5)	(6)
	Statement Value	Allocation % by Class Type	RBC Factors by Class Type	Weighted Avg RBC Factor by Class type (2)x(3)	Allocation % by Asset type (1)/Total (1)	Weighted Avg RBC by Asset type (4)x(5)
<b>Bonds and Hybrids</b>						
Exempt Obligations	203,681,899,268	5.93%	0.0000	0.000		
NAIC 1	1,755,070,452,018	51.06%	0.0039	0.002		
NAIC 2	1,266,205,845,000	36.84%	0.0126	0.005		
NAIC 3	138,002,043,541	4.02%	0.0446	0.002		
NAIC 4	54,220,375,402	1.58%	0.0970	0.002		
NAIC 5	17,360,937,037	0.51%	0.2231	0.001		
NAIC 6	2,419,944,866	0.07%	0.3000	0.000		
<b>Subtotal</b>	<b>3,436,961,497,132</b>	<b>100.00%</b>		<b>0.011</b>	<b>98.32%</b>	<b>0.011</b>
<b>Preferred stock</b>						
NAIC 1	3,236,974,611	21.34%	0.0040	0.001		
NAIC 2	8,058,180,267	53.14%	0.0130	0.007		
NAIC 3	1,626,957,797	10.73%	0.0460	0.005		
NAIC 4	954,076,003	6.29%	0.1000	0.006		
NAIC 5	825,983,462	5.45%	0.2300	0.013		
NAIC 6	462,924,058	3.05%	0.3000	0.009		
<b>Subtotal</b>	<b>15,165,096,198</b>	<b>100.00%</b>		<b>0.041</b>	<b>0.43%</b>	<b>0.000</b>
<b>Common stock (subtotal)</b>	<b>43,472,175,917</b>	<b>100.00%</b>	<b>0.3000</b>	<b>0.300</b>	<b>1.24%</b>	<b>0.004</b>
<b>Total</b>	<b>3,495,598,769,247</b>				<b>100.00%</b>	<b>0.015</b>

## Proposed 2021 P&amp;C RBC Factor for Receivables for Securities

	(1)	(2)	(3)	(4)	(5)	(6)
	Statement Value	Allocation % by Class Type	RBC Factors by Class Type	Weighted Avg RBC Factor by Class type (2)x(3)	Allocation % by Asset type (1)/Total (1)	Weighted Avg RBC by Asset type (4)x(5)
<b>Bonds</b>						
Exempt Obligations	198,077,770,204	14.73%	0.000	0.000		
NAIC 1	892,606,935,183	66.40%	0.003	0.002		
NAIC 2	196,155,056,615	14.59%	0.010	0.001		
NAIC 3	29,627,422,364	2.20%	0.020	0.000		
NAIC 4	22,407,220,194	1.67%	0.045	0.001		
NAIC 5	4,921,385,393	0.37%	0.100	0.000		
NAIC 6	575,257,936	0.04%	0.300	0.000		
<b>Subtotal</b>	<b>1,344,371,047,889</b>	<b>100.00%</b>		<b>0.005</b>	<b>88.49%</b>	<b>0.005</b>
<b>Preferred stock</b>						
NAIC 1	268,672,231	2.06%	0.003	0.000		
NAIC 2	5,385,911,971	41.35%	0.010	0.004		
NAIC 3	1,610,172,447	12.36%	0.020	0.002		
NAIC 4	5,454,937,067	41.88%	0.045	0.019		
NAIC 5	167,040,637	1.28%	0.100	0.001		
NAIC 6	137,185,850	1.05%	0.300	0.003		
<b>Subtotal</b>	<b>13,023,920,203</b>	<b>100.00%</b>		<b>0.030</b>	<b>0.86%</b>	<b>0.000</b>
<b>Hybrid Securities</b>						
NAIC 1	195,915,508	5.41%	0.003	0.000		
NAIC 2	2,602,668,840	71.83%	0.010	0.007		
NAIC 3	796,155,236	21.97%	0.020	0.004		
NAIC 4	28,186,843	0.78%	0.045	0.000		
NAIC 5	629,783	0.02%	0.100	0.000		
NAIC 6	16,321	0.00%	0.300	0.000		
<b>Subtotal</b>	<b>3,623,572,531</b>	<b>100.00%</b>		<b>0.012</b>	<b>0.24%</b>	<b>0.000</b>
<b>Common stock (subtotal)</b>	<b>158,185,376,976</b>	<b>100.00%</b>	<b>0.150</b>	<b>0.150</b>	<b>10.41%</b>	<b>0.016</b>
<b>Total</b>	<b>1,519,203,917,599</b>				<b>100.00%</b>	<b>0.020</b>

## Proposed 2021 Health RBC Factor for Receivables for Securities

	(1)	(2)	(3)	(4)	(5)	(6)
	Statement Value	Allocation % by Class Type	RBC Factors by Class Type	Weighted Avg RBC Factor by Class type (2)x(3)	Allocation % by Asset type (1)/Total (1)	Weighted Avg RBC by Asset type (4)x(5)
<b>Bonds</b>						
Exempt Obligations	26,978,694,441	16.82%	0.000	0.000		
NAIC 1	92,173,162,315	57.45%	0.003	0.002		
NAIC 2	31,516,321,303	19.64%	0.010	0.002		
NAIC 3	5,719,206,660	3.56%	0.020	0.001		
NAIC 4	3,540,212,585	2.21%	0.045	0.001		
NAIC 5	369,787,474	0.23%	0.100	0.000		
NAIC 6	134,137,224	0.08%	0.300	0.000		
<b>Subtotal</b>	<b>160,431,522,002</b>	<b>100.00%</b>		<b>0.006</b>	<b>86.84%</b>	<b>0.005</b>
<b>Preferred stock</b>						
NAIC 1	16,895,298	2.64%	0.003	0.000		
NAIC 2	409,146,343	63.86%	0.010	0.006		
NAIC 3	185,064,846	28.88%	0.020	0.006		
NAIC 4	768,429	0.12%	0.045	0.000		
NAIC 5	23,426,601	3.66%	0.100	0.004		
NAIC 6	5,410,086	0.84%	0.300	0.003		
<b>Subtotal</b>	<b>640,711,603</b>	<b>100.00%</b>		<b>0.018</b>	<b>0.35%</b>	<b>0.000</b>
<b>Hybrid Securities</b>						
NAIC 1	32,723,508	6.51%	0.003	0.000		
NAIC 2	356,672,701	70.96%	0.010	0.007		
NAIC 3	108,648,195	21.62%	0.020	0.004		
NAIC 4	972,052	0.19%	0.045	0.000		
NAIC 5	1,008,743	0.20%	0.100	0.000		
NAIC 6	2,600,202	0.52%	0.300	0.002		
<b>Subtotal</b>	<b>502,625,401</b>	<b>100.00%</b>		<b>0.013</b>	<b>0.27%</b>	<b>0.000</b>
<b>Common stock (subtotal)</b>	<b>23,167,522,031</b>	<b>100.00%</b>	<b>0.150</b>	<b>0.150</b>	<b>12.54%</b>	<b>0.019</b>
<b>Total</b>	<b>184,742,381,037</b>				<b>100.00%</b>	<b>0.024</b>

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**Capital Adequacy (E) Task Force****RBC Proposal Form**

- Capital Adequacy (E) Task Force       Health RBC (E) Working Group       Life RBC (E) Working Group  
 Catastrophe Risk (E) Subgroup       Investment RBC (E) Working Group       SMI RBC (E) Subgroup  
 C3 Phase II/ AG43 (E/A) Subgroup       P/C RBC (E) Working Group       Stress Testing (E) Subgroup

<b>DATE:</b> <u>04/23/2021</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Crystal Brown</u>	Agenda Item # <u>2021-09-H</u>
<b>TELEPHONE:</b> <u>816-783-8146</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>cbrown@naic.org</u>	<b><u>DISPOSITION</u></b>
<b>ON BEHALF OF:</b> <u>Health RBC (E) Working Group</u>	<input checked="" type="checkbox"/> ADOPTED <u>WG 5-25-21</u>
<b>NAME:</b> <u>Steve Drutz</u>	<input type="checkbox"/> REJECTED _____
<b>TITLE:</b> <u>Chief Financial Analyst/Chair</u>	<input type="checkbox"/> DEFERRED TO _____
<b>AFFILIATION:</b> <u>WA Office of Insurance Commissioner</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP
<b>ADDRESS:</b> <u>5000 Capitol Blvd SE</u>	<input checked="" type="checkbox"/> EXPOSED <u>5-21-21</u>
<u>Tumwater, WA 98501</u>	<input type="checkbox"/> OTHER (SPECIFY) _____

**IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED**

- Health RBC Blanks       Health RBC Instructions       Other \_\_\_\_\_  
 Life and Fraternal RBC Blanks       Life and Fraternal RBC Instructions  
 Property/Casualty RBC Blanks       Property/Casualty RBC Instructions

**DESCRIPTION OF CHANGE(S)**

Incorporate the factors for the 20 NAIC Designation Category Bonds based on a five-year time horizon for page XR006, XR007 and XR012. Modify the instructions to incorporate references for the bonds.

**REASON OR JUSTIFICATION FOR CHANGE \*\***

The reason for the change is to incorporate the new bond factors for the 20 NAIC Designation Categories for a five-year time horizon in both the blank and instructions. The factor includes the bond portfolio adjustment.

**Additional Staff Comments:**

4-23-21 cgb The WG exposed the proposal for a 25-day comment period ending on May 21.  
5-25-21 cgb No comments were received. The WG adopted the proposal with the 5-year time horizon factors.

\*\* This section must be completed on all forms.

Revised 11-2013

## OFF-BALANCE SHEET SECURITY LENDING COLLATERAL AND SCHEDULE DL, PART 1 ASSETS XR006

Security lending programs are required to maintain collateral. Some entities post the collateral supporting security lending programs on their financial statements and incur the related risk charges on those assets. Other entities have collateral that is not recorded on their financial statements. While not recorded on the financial statements of the company, such collateral has risks that are not otherwise captured in the RBC formula.

The collateral in these accounts is maintained by a third party (typically a bank or other agent). The collateral agent maintains on behalf of the company detail asset listings of the collateral assets, and this data is the source for preparation of this schedule. The company should maintain such asset listings, at a minimum CUSIP, market value, book/adjusted carrying value, and maturity date.

The asset risk charges are derived from existing RBC factors for bonds, preferred and common stocks, other invested assets, and invested assets not otherwise classified (aggregate write-ins).

### *Specific Instructions for Application of the Formula*

Column (2) – Schedule DL, Part 1 Book/Adjusted Carrying Value comes from Annual Statement Schedule DL, Part 1, Column (6) Securities Lending Collateral Assets reported On-Balance Sheet (Assets Page, Line 10).

Off-balance sheet collateral included in General Interrogatories Part 1, Lines 24.05 and 24.06 of the annual statement should agree with Line (40), Column (1).

Lines (1) through (27) – Bonds – Bond factors described on page XR007 – Fixed Income Assets.

Line (28) through (34) – Preferred Stock – Preferred stock factors described on page XR010 – Equity Assets.

Line (35) – Common Stock – Common stock factors described on page XR010 – Equity Assets.

Line (36) – Real Estate and Property and Equipment Assets – Real Estate and Property and Equipment Assets factors described on page XR011 – Property & Equipment Assets.

Line (37) – Other Invested Assets – Other invested assets factor described on page XR008 – Fixed Income Assets.

Line (38) – Mortgage Loans on Real Estate – Mortgage Loans on Real Estate factors described on page XR008 – Fixed Income Assets.

Line (39) – Cash, Cash Equivalents and Short-Term Investments – Cash, Cash Equivalents and Short-Term Investments factors described on page XR008 – Fixed Income Assets.

## FIXED INCOME ASSETS XR007 AND XR008

The RBC requirement for fixed income assets is largely driven by the default risk on those assets. There are two major subcategories: Bonds and Miscellaneous. Bonds include item that meet the definition of a bond, regardless if the bond is long-term (reported on Schedule D-1), short-term (reported on schedule DA) or a cash equivalent

(reported on Schedule E-2.) Miscellaneous fixed income assets include non-bond items reported on the cash equivalent and short-term schedules, derivatives, mortgage loans, collateral loans, and other items reported on Schedule BA: Other Long-Term Invested Assets.

### **Bonds (XR007)**

The bond factors for investment grade bonds (NAIC Designation Category (1.A-2.C) are based on cash flow modeling. Each bond of a portfolio was annually tested for default (based on a “roll of the dice”) where the default probability varies by NAIC Designation Category and that year’s economic environment. The default probabilities were based on historical data intended to reflect a complete business cycle of favorable and unfavorable credit environments. The risk of default was measured over a five-year time horizon, based on the duration of assets held for health companies.

The factors for NAIC Designation Category 3.A to 6 recognize that these non-investment grade bonds are reported at the lower of amortized cost or fair value. These bond risk factors are based on the market value fluctuation for each of the NAIC designation category compared to the market value fluctuation of stocks during the 2008-2009 financial crisis.

While the life and property/casualty formulas have a separate calculation for the bond size factor (based on the number of issuers in the RBC filer's portfolio), the health formula does not include a separate calculation, instead a bond size component was incorporated into the bond factors. A representative portfolio of 382 issuers was used in calculating the bond risk factors.

There is no RBC requirement for bonds guaranteed by the full faith and credit of the United States, Other U.S. Government Obligations, and securities on the NAIC U.S. Government Money Market Fund List because it is assumed that there is no default risk associated with U.S. Government issued securities.

The book/adjusted carrying value of all bonds should be reported in Columns (1), (2) or (3). The bonds are split into twenty-one different risk classifications. These risk classifications are based on the NAIC Designation Category as defined and permitted in the Purposes and Procedures Manual of the NAIC Investment Analysis Office. The subtotal of Columns (1), (2) and (3) will be calculated in Colum (4). The RBC requirement will be automatically calculated in Column (5).

### **Miscellaneous Fixed Income Assets (XR008)**

The factor for cash is 0.3 percent. It is recognized that there is a small risk related to possible insolvency of the bank where cash deposits are held. This factor was based on the original unaffiliated NAIC 01 bond risk factor prior to the increased granularity of the NAIC Designation Categories in 2021, and reflects the short-term nature of this risk. The required risk-based capital for cash will not be less than zero, even if the company’s cash position is negative.

The Short-Term Investments to be included in this section are those short-term investments not reflected elsewhere in the formula. The 0.3 percent factor is equal to the factor for cash. The amount reported in Line (35) reflects the total from Schedule DA: Short-Term Investments (Line 33), less the short-term bonds (Line 34). (The short-term bonds reported in Line (34) should equal Schedule DA, Part 1, Column 7, Line 8399999.)

Mortgage loans (reported on Schedule B) and Derivatives (reported on Schedule DB) receive a factor of 5 percent, consistent with other risk-based capital formulas studied by the Working Group.

The following investment types are captured on Schedule BA: Other Long-Term Invested Assets. Specific factors have been established for certain Schedule BA assets based on the nature of the investment. Those Schedule BA assets not specifically identified below receive a 20 percent factor (Line (43)).

- Collateral Loans reported on Line (40) receive a factor of 5 percent, consistent with other risk-based capital formulas studied by the Working Group.

- Working Capital Finance Investments: The book adjusted carrying value of NAIC 01 and 02 Working Capital Finance Investments, Lines (41) and (42), should equal the Notes to Financial Statement, Lines 5M(01a) and 5M(01b), Column 3 of the annual statement.
- Low income housing tax credit investments are reported in Column (1) in accordance with *SSAP No. 93—Low Income Housing Tax Credit Property Investments*.
  - Federal Guaranteed Low-Income Housing Tax Credit (LIHTC) investments are to be included in Line (44). There must be an all-inclusive guarantee from an ARO-rated entity that guarantees the yield on the investment.
  - Federal Non-Guaranteed LIHTC investments with the following risk mitigation factors are to be included in Line (45):
    - a) A level of leverage below 50 percent. For a LIHTC Fund, the level of leverage is measured at the fund level.
    - b) There is a tax credit guarantee agreement from general partner or managing member. This agreement requires the general partner or managing member to reimburse investors for any shortfalls in tax credits due to errors of compliance, for the life of the partnership. For an LIHTC fund, a tax credit guarantee is required from the developers of the lower-tier LIHTC properties to the upper-tier partnership.
  - State Guaranteed LIHTC investments that at a minimum meet the federal requirements for guaranteed LIHTC investments are to be included in Line (46).
  - State Non-Guaranteed LIHTC investments that at a minimum meet the federal requirements for non-guaranteed LIHTC investments are to be included on Line (47).
  - All Other LIHTC investments, state and federal LIHTC investments that do not meet the requirements of Lines (44) through (47) would be reported on Line (48).

## EQUITY ASSETS

### XR010

#### Unaffiliated Preferred Stocks

Experience data to develop preferred stock factors is not readily available; however, it is believed that preferred stocks are somewhat more likely to default than bonds. The loss on default would be somewhat higher than that experienced on bonds; however, formula factors are equal to bond factors.

The RBC requirements for unaffiliated preferred stocks are based on the NAIC designation. Column (1) amounts are from Schedule D, Part 2, Section 1 not including affiliated preferred stock. The preferred stocks must be broken out by asset designation (NAIC 01 through NAIC 06) and these individual groups are to be entered in the appropriate lines. The total amount of unaffiliated preferred stock reported should equal annual statement Page 2, Column 3, Line 2.1, less any affiliated preferred stock in Schedule D Summary by Country, Column 1, Line 18.

#### Unaffiliated Common Stock

Federal Home Loan Bank Stock has characteristics more like a fixed income instrument rather than common stock. A 2.3 percent factor was chosen. The factor for other unaffiliated common stock is based on studies which indicate that a 10 percent to 12 percent factor is needed to provide capital to cover approximately 95 percent of the greatest losses in common stock over a one-year future period. The higher factor of 15 percent contained in the formula reflects the increased risk when testing a period in excess of one year. This factor assumes capital losses are unrealized and not subject to favorable tax treatment at the time of loss in market value.

## ASSET CONCENTRATION XR012

The purpose of the asset concentration calculation is to reflect the additional risk of high concentrations of certain types of assets in single exposures, termed “issuers.” An issuer is a single entity, such as IBM or the Ford Motor Company. When the reporting entity has a large portion of its asset portfolio concentrated in only a few issuers, there is a heightened risk of insolvency if one of those issuers should default. An issuer may be represented in the reporting entity’s investment portfolio by a single security designation, such as a large block of NAIC Designation Category 2.A bonds, or a combination of various securities, such as common stocks, preferred stocks, and bonds. The additional RBC for asset concentration is applied to the ten largest issuers.

Concentrated investments in certain types of assets are not expected to represent an additional risk over and above the general risk of the asset itself. Therefore, prior to determining the ten largest issuers, you should exclude those assets that are exempt from the asset concentration factor. Asset types that are excluded from the calculation include: NAIC 06 bonds, unaffiliated preferred stock; affiliated common stock; affiliated preferred stock; property and equipment; U.S. government full faith and credit, other U.S. government obligations, and NAIC U.S. government money market fund list securities; NAIC 01 bonds and unaffiliated preferred stock; any other asset categories with risk-based capital factors less than 1 percent, and investment companies (mutual funds) and common trust funds that are diversified within the meaning of the federal Investment Company Act of 1940 [Section 5(b) (1)]. The pro rata share of individual securities within an investment company (mutual fund) or common trust fund are to be included in the determination of concentrated investments, subject to the exclusions identified.

With respect to investment companies (mutual funds) and common trust funds, the reporting entity is responsible for maintaining the appropriate documentation as evidence that such is diversified within the meaning of the federal Investment Company Act and providing this information upon request of the Commissioner, Director or Superintendent of the Department of Insurance. The reporting entity is also responsible for maintaining a listing of the individual securities and corresponding book/adjusted carrying values making up its investment companies (mutual funds) and common trust funds portfolio, in order to determine whether a concentration charge is necessary. This information should be provided to the Commissioner, Director or Superintendent upon request.

The assets that **ARE INCLUDED** in the calculation when determining the 10 largest issuers are as follows:

- NAIC Designation Category 2.A – 2.C Bonds
- NAIC Designation Category 3.A – 3.C Bonds
- NAIC Designation Category 4.A – 4.C Bonds
- NAIC Designation Category 5.A – 5.C Bonds
- Collateral Loans
- Mortgage Loans
- NAIC 02 Unaffiliated Preferred Stock
- NAIC 03 Unaffiliated Preferred Stock
- NAIC 04 Unaffiliated Preferred Stock
- NAIC 05 Unaffiliated Preferred Stock
- Other Long-Term Assets
- NAIC 02 Working Capital Finance Investments
- Federal Guaranteed Low Income Housing Tax Credits
- Federal Non-Guaranteed Low Income Housing Tax Credits
- State Guaranteed Low Income Housing Tax Credits
- State Non-Guaranteed Low Income Housing Tax Credits

All Other Low Income Housing Tax Credits  
Unaffiliated Common Stock

The concentration factor basically doubles the risk-based capital factor (up to a maximum of 30 percent) for assets held in the 10 largest issuers. Since the risk-based capital of the assets included in the concentration factor has already been counted once in the basic formula, this factor itself only serves to add an additional risk-based capital requirement on these assets.

The name of each of the largest 10 issuers is entered at the top of the table and the appropriate statement amounts are entered in Column (2), Lines (1) through (26). Aggregate all similar asset types before entering the amount in Column (2). To determine the 10 largest issuers, first pool all of the assets subject to the concentration factor. From this pool, aggregate the various securities by issuer. The aggregate book/adjusted carrying values for the assets are computed, and the 10 largest are subject to the concentration factor. For example, an organization might own \$6,000,000 in NAIC Designation Category 2.A bonds of IBM, plus \$4,000,000 in NAIC Designation Category 2.C plus \$5,000,000 of common stock. The total investment in that issuer is \$15,000,000. If that is the largest issuer, then the identifier ("IBM Corporation") would be entered in the space allowed for the first Issuer Name, and the \$6,000,000 would be entered under the book/adjusted carrying value column for Line (1) (NAIC Designation Category 2.A Bonds) \$4,000,000 would be entered on Line (3) (NAIC Designation Category 2.C Bonds) and the \$5,000,000 would be entered on Line (22) (Unaffiliated Common Stock).

Replicated assets other than synthetically created indices should be included in the asset concentration calculation in the same manner as other assets.


OFF-BALANCE SHEET SECURITY LENDING COLLATERAL AND SCHEDULE DL, PART 1 ASSETS

Asset Category	Annual Statement Source	(1) Off-Balance Sheet Collateral Book/Adjusted Carrying Value	(2) Schedule DL, Part 1 Book/Adjusted Carrying Value	(3) Subtotal	Factor	(4) RBC Requirement
<u>Fixed Income Assets</u>						
<u>Bonds</u>						
(1) NAIC 1.A - U.S. Government Full Faith and Credit, Other U.S. Government Obligations, and NAIC U.S. Government Money Market Fund List (Refer to A/S Instructions)	Company Records	0	0	0	0.000	0
(2) NAIC Designation Category 1.A Bonds	Company Records	0	0	0	0.003	0
(3) NAIC Designation Category 1.B Bonds	Company Records	0	0	0	0.005	0
(4) NAIC Designation Category 1.C Bonds	Company Records	0	0	0	0.008	0
(5) NAIC Designation Category 1.D Bonds	Company Records	0	0	0	0.011	0
(6) NAIC Designation Category 1.E Bonds	Company Records	0	0	0	0.014	0
(7) NAIC Designation Category 1.F Bonds	Company Records	0	0	0	0.016	0
(8) NAIC Designation Category 1.G Bonds	Company Records	0	0	0	0.019	0
(9) Total NAIC 01 Bonds	Sum of Lines (1) through (8)	0	0	0		0
(10) NAIC Designation Category 2.A Bonds	Company Records	0	0	0	0.022	0
(11) NAIC Designation Category 2.B Bonds	Company Records	0	0	0	0.025	0
(12) NAIC Designation Category 2.C Bonds	Company Records	0	0	0	0.031	0
(13) Total NAIC 02 Bonds	Sum of Lines (10) through (12)	0	0	0		0
(14) NAIC Designation Category 3.A Bonds	Company Records	0	0	0	0.069	0
(15) NAIC Designation Category 3.B Bonds	Company Records	0	0	0	0.076	0
(16) NAIC Designation Category 3.C Bonds	Company Records	0	0	0	0.083	0
(17) Total NAIC 03 Bonds	Sum of Lines (14) through (16)	0	0	0		0
(18) NAIC Designation Category 4.A Bonds	Company Records	0	0	0	0.089	0
(19) NAIC Designation Category 4.B Bonds	Company Records	0	0	0	0.097	0
(20) NAIC Designation Category 4.C Bonds	Company Records	0	0	0	0.110	0
(21) Total NAIC 04 Bonds	Sum of Lines (18) through (20)	0	0	0		0
(22) NAIC Designation Category 5.A Bonds	Company Records	0	0	0	0.123	0
(23) NAIC Designation Category 5.B Bonds	Company Records	0	0	0	0.137	0
(24) NAIC Designation Category 5.C Bonds	Company Records	0	0	0	0.151	0
(25) Total NAIC 05 Bonds	Sum of Lines (22) through (24)	0	0	0		0
(26) Total NAIC 06 Bonds	Company Records	0	0	0	0.300	0
(27) Total Bonds	Lines (9) + (13) + (17) + (21) + (25) + (26)	0	0	0		0
<u>Equity Assets</u>						
<u>Preferred Stock - Unaffiliated</u>						
(28) NAIC 01 Unaffiliated Preferred Stock	Company Records			0	0.003	0
(29) NAIC 02 Unaffiliated Preferred Stock	Company Records			0	0.010	0
(30) NAIC 03 Unaffiliated Preferred Stock	Company Records			0	0.020	0
(31) NAIC 04 Unaffiliated Preferred Stock	Company Records			0	0.045	0
(32) NAIC 05 Unaffiliated Preferred Stock	Company Records			0	0.100	0
(33) NAIC 06 Unaffiliated Preferred Stock	Company Records			0	0.300	0
(34) Total Unaffiliated Preferred Stock	Sum of Lines (28) through (33)	0	0	0		0
(35) Unaffiliated Common Stock	Company Records			0	0.150	0
(36) Real Estate and Property & Equipment Assets	Company Records			0	0.100	0
(37) Other Invested Assets	Company Records			0	0.200	0
(38) Mortgage Loans on Real Estate	Company Records			0	0.050	0
(39) Cash, Cash Equivalents and Short-Term Investments (Not reported on Bonds above)	Company Records			0	0.003	0
(40) Total	Lines (27) + (34) + (35) + (36) + (37) + (38) + (39)	0	0	0		0

Denotes items that must be manually entered on the filing software

**FIXED INCOME ASSETS  
BONDS**

		(1)	(2)	(3)	(4)	(5)
	Annual Statement Source	Long-Term Bonds Schedule D, Part 1 Book/Adjusted Carrying Value L2 thru 26 = Sch D Pt1F	Short-Term Investments Schedule DA, Part 1 Book/Adjusted Carrying Value L2 thru 26 = Sch DA Pt1F	Cash Equivalents Schedule E, Part 2 Book/Adjusted Carrying Value L2 thr 26 = Sch E Pt2F	Subtotal C(1) + C(2) + C(3)	RBC Requirement
(1)	NAIC 1.A - U.S. Government Full Faith and Credit, Other U.S. Government Obligations, and NAIC U.S. Government Money Market Fund List (Refer to A/S Instructions)	C(1)=Sch D, Pt 1, C11 L0599999 C(2)=Sch DA, Pt 1, C7 L0599999 C(3)=Sch E, Pt 2, C7 L0599999 + L8599999	0	0	0	0
(2)	NAIC Designation Category 1.A	Footnote Amt 1 L000001A- L(1)	0	0	0	0.000
(3)	NAIC Designation Category 1.B	Footnote Amt 2 L000001A	0	0	0	0.003
(4)	NAIC Designation Category 1.C	Footnote Amt 3 L000001A	0	0	0	0.005
(5)	NAIC Designation Category 1.D	Footnote Amt 4 L000001A	0	0	0	0.008
(6)	NAIC Designation Category 1.E	Footnote Amt 5 L000001A	0	0	0	0.011
(7)	NAIC Designation Category 1.F	Footnote Amt 6 L000001A	0	0	0	0.014
(8)	NAIC Designation Category 1.G	Footnote Amt 7 L000001A	0	0	0	0.016
(9)	Total NAIC 01 Bonds	Sum of Ls (1) through (8)	0	0	0	0.019
(10)	NAIC Designation Category 2.A	Footnote Amt 1 L000001B	0	0	0	0.022
(11)	NAIC Designation Category 2.B	Footnote Amt 2 L000001B	0	0	0	0.025
(12)	NAIC Designation Category 2.C	Footnote Amt 3 L000001B	0	0	0	0.031
(13)	Total NAIC 02 Bonds	Sum of Ls (10) through (12)	0	0	0	0.069
(14)	NAIC Designation Category 3.A	Footnote Amt 1 L000001C	0	0	0	0.076
(15)	NAIC Designation Category 3.B	Footnote Amt 2 L000001C	0	0	0	0.083
(16)	NAIC Designation Category 3.C	Footnote Amt 3 L000001C	0	0	0	0.089
(17)	Total NAIC 03 Bonds	Sum of Ls (14) through (16)	0	0	0	0.097
(18)	NAIC Designation Category 4.A	Footnote Amt 1 L000001D	0	0	0	0.110
(19)	NAIC Designation Category 4.B	Footnote Amt 2 L000001D	0	0	0	0.123
(20)	NAIC Designation Category 4.C	Footnote Amt 3 L000001D	0	0	0	0.137
(21)	Total NAIC 04 Bonds	Sum of Ls (18) through (20)	0	0	0	0.151
(22)	NAIC Designation Category 5.A	Footnote Amt 1 L000001E	0	0	0	0.300
(23)	NAIC Designation Category 5.B	Footnote Amt 2 L000001E	0	0	0	
(24)	NAIC Designation Category 5.C	Footnote Amt 3 L000001E	0	0	0	
(25)	Total NAIC 05 Bonds	Sum of Ls (22) through (24)	0	0	0	
(26)	Total NAIC 06 Bonds	Footnote Amt 1 L000001F	0	0	0	
(27)	Total Bonds RBC	L(9) + L(13) + L(17) + L(21) + L(25) + L(26)	0	0	0	

 Denotes items that must be vendor linked.



**ASSET CONCENTRATION**

		(1)		
Issuer Name				
Issuer		(2)	Factor	(3)
		<u>Bk/Adj Carrying Value</u>		<u>Additional RBC</u>
01	(1) NAIC Designation Category 2.A Bonds		<b>0.0220</b>	\$0
01	(2) NAIC Designation Category 2.B Bonds		<b>0.0250</b>	\$0
01	(3) NAIC Designation Category 2.C Bonds		<b>0.0310</b>	\$0
01	(4) NAIC Designation Category 3.A Bonds		<b>0.0690</b>	\$0
01	(5) NAIC Designation Category 3.B Bonds		<b>0.0760</b>	\$0
01	(6) NAIC Designation Category 3.C Bonds		<b>0.0830</b>	\$0
01	(7) NAIC Designation Category 4.A Bonds		<b>0.0890</b>	\$0
01	(8) NAIC Designation Category 4.B Bonds		<b>0.0970</b>	\$0
01	(9) NAIC Designation Category 4.C Bonds		<b>0.1100</b>	\$0
01	(10) NAIC Designation Category 5.A Bonds		<b>0.1230</b>	\$0
01	(11) NAIC Designation Category 5.B Bonds		<b>0.1370</b>	\$0
01	(12) NAIC Designation Category 5.C Bonds		<b>0.1490</b>	\$0
01	(13) Collateral Loans		0.0500	\$0
01	(14) Mortgages		0.0500	\$0
01	(15) NAIC 02 Unaffiliated Preferred Stock		0.0100	\$0
01	(16) NAIC 03 Unaffiliated Preferred Stock		0.0200	\$0
01	(17) NAIC 04 Unaffiliated Preferred Stock		0.0450	\$0
01	(18) NAIC 05 Unaffiliated Preferred Stock		0.1000	\$0
01	(19) Other Long-Term Invested Assets		0.1000	\$0
01	(20) NAIC 02 Working Capital Finance Investments		0.0125	\$0
01	(21) Federal Guaranteed Low Income Housing Tax Credits		0.0014	\$0
01	(22) Federal Non-Guaranteed Low Income Housing Tax Credits		0.0260	\$0
01	(23) State Guaranteed Low Income Housing Tax Credits		0.0014	\$0
01	(24) State Non-Guaranteed Low Income Housing Tax Credits		0.0260	\$0
01	(25) All Other Low Income Housing Tax Credits		0.1500	\$0
01	(26) Unaffiliated Common Stock		0.1500	\$0
01	(27) Total of Issuer = Lines (1) through (26)	\$0		\$0

  Denotes items that must be manually entered on filing software.

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## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group     | <input type="checkbox"/> Life RBC (E) Working Group    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input type="checkbox"/> P/C RBC (E) Working Group        | <input type="checkbox"/> Longevity Risk (A/E) Subgroup |

<b>DATE:</b> <u>February 26, 2021(mod)</u>	<b>FOR NAIC USE ONLY</b>
<b>CONTACT PERSON:</b> <u>Steve Clayburn</u>	Agenda Item # <u>2021-06-L</u>
<b>TELEPHONE:</b> <u>(202) 624-2197</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>steveclayburn@acli.com</u>	<b>DISPOSITION</b>
<b>ON BEHALF OF:</b> <u>American Council of Life Insurers (ACLI)</u>	<input type="checkbox"/> ADOPTED <u>5/27/21</u>
<b>NAME:</b> <u>Steve Clayburn</u>	<input type="checkbox"/> REJECTED _____
<b>TITLE:</b> <u>Senior Actuary, Health Insurance &amp; Reinsurance</u>	<input type="checkbox"/> DEFERRED TO _____
<b>AFFILIATION:</b> <u>ACLI</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____
<b>ADDRESS:</b> _____	<input type="checkbox"/> EXPOSED <u>4/6/21, 4/29/21</u>
_____	<input type="checkbox"/> OTHER (SPECIFY) _____

#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Health RBC Blanks       | <input type="checkbox"/> Property/Casualty RBC Blanks       | <input checked="" type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input type="checkbox"/> Property/Casualty RBC Instructions | <input checked="" type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |   |   |

#### DESCRIPTION OF CHANGE(S)

To update the RBC calculation for Real Estate to reflect updated experience and analysis since RBC was first developed. This proposal presents the instructions and factors for the structure in proposal 2021-01-L.

#### REASON OR JUSTIFICATION FOR CHANGE \*\*

When RBC was developed, there was limited experience on the default and loss for commercial real estate. Since then data sources have been compiled and tracked in the industry, and can now be accessed to provide more meaningful analysis and information for development of capital standards.

#### Additional Staff Comments:

[This proposal was adopted by the Working Group on 5/27/21. The fair value adjustment is set to zero for yearend 2021 RBC filings.](#)

\*\* This section must be completed on all forms.

Revised 2-2019

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## 1. REAL ESTATE

LR007

### *Basis of Factors*

~~Companies that have developed their own risk-based capital factors for real estate have used a range of factors from 5 percent to 20 percent. One study indicated real estate volatility is about 60 percent of common stock, suggesting a factor in the range of 18 percent. Assuming a full tax effect for losses, a pre-tax factor of 15 percent was chosen. Foreclosed real estate would carry a somewhat higher risk at 23 percent pre-tax. Schedule BA real estate also has a 23 percent factor pre-tax because of the additional risks inherent in owning real estate through a partnership. The pre-tax factors were developed by dividing the post-tax factor by 0.65 (0.65 is calculated by taking 1.0 less 0.35). The pre-tax factors are not changing for 2018 due to tax reform. The base factor for equity real estate of 11% was developed by adding a margin for conservatism to the results of an analysis of real estate performance over the period of 1978 – 2020. The analysis was conducted by a group of life insurance company real estate investment professionals coordinated by the ACLI. The data used was a national database of real property owned by investment fiduciaries and supplemented by data on real estate backing mortgage securities. The analysis is documented in a report to the NAIC dated March 29, 2021. In addition to modifying the factor for company owned and investment real estate, this updated factor will also be used for real estate acquired in satisfaction of debt (Foreclosed real estate). Foreclosed real estate is recognized in the statutory statements as having acquisition cost equal to market value at time of foreclosure. For assets with the characteristics of real held estate (partnership or other structure) reported on Schedule BA, a higher factor of 13% is used to account for the lower transparency involved with these structures. Schedule BA real estate was originally given a higher factor under a presumption that it was more highly levered. Analysis has shown these assets to have experience very similar to directly held and will therefore use a modestly higher factor.~~

~~While the experience analysis was done based on analysis of fair value impacts, Real Estate is reported at depreciated cost in the Statutory statements. The difference in values impacts the risk to statutory surplus. Therefore, an adjustment is made to the factor based on the difference between fair value and statutory carrying value on a property by property basis. The adjustment is defined as~~

$$\text{Adj Factor} = \text{RE Factor} * (1 - [\text{factor}] * (MV - BVg) / BVg)$$

~~factor is [1/2 0] This zero factor for the fair value adjustment is for yearend 2021 RBC filings.~~

~~The resulting adjusted RBC factor is subject to a minimum of zero. In the RBC calculation, see Figure 7, fair value is taken from Schedule A Column 10 plus encumbrances, or from Schedule BA column 11 plus encumbrances, respectively, while BVg is the net Book Adjusted Carrying Value plus the encumbrance.~~

~~Encumbrances have been included in the real estate base since the value of the property is held net of the encumbrance, but the entire value is subject to loss-would include encumbrances. Encumbrances receive at the base real estate factor of 11% reduced by the average factor for commercial mortgages of 1.752 percent pre-tax. In the past this was computed as a base factor applied to the net real estate value plus a separate factor applied to the amount of the encumbrance. Beginning in 2021, the equivalent result will be obtained by applying a base factor to the gross statutory value of the property, and a credit provided for the amount of the encumbrance. for real estate encumbrances not in foreclosure and 20 percent pre-tax for real estate encumbrances in foreclosure and encumbrances on Schedule BA real estate.~~

~~The final RBC amount is subject to a minimum of the Baa bond factor 1.30% applied to the BACV, and a maximum of 45% of the BACV.~~

~~All references to involuntary reserves as it relates to real estate were removed to comply with the codification of statutory accounting principles.~~

### *Specific Instructions for Application of the Formula*

#### Column (1)

Calculations are done on an individual property or joint venture basis in the worksheets and then the summary amounts are entered in this column for each class of real estate investment. Refer to the real estate calculation worksheet (Figure 7) for how the individual property or joint venture calculations are completed.

Line (1) should equal Page 2, Column 3, Line 4.1.  
 Line (2) should equal Page 2, inside amount, Line 4.1.  
 Line (4) should equal AVR Equity Component Column 1 Line 20.  
 Line (5) should equal AVR Equity Component Column 3 Line 20.  
 Line (7) should equal AVR Equity Component Column 1 Line 19.  
 Line (8) should equal AVR Equity Component Column 3 Line 19.  
 Line (14) should equal Schedule BA, Part 1, Column 12, Line ~~1799999~~ 2199999 plus Line ~~1899999~~ 2299999, in part.  
 Line (15) should equal Schedule BA, Part 1, Column 12, Line 1799999 plus Line 1899999, in part.  
 Line (17) should equal AVR Equity Component Column 1 Line 75.  
 Line (18) should equal AVR Equity Component Column 1 Line 76.  
 Line (19) should equal AVR Equity Component Column 1 Line 77.  
 Line (20) should equal AVR Equity Component Column 1 Line 78.  
 Line (21) should equal AVR Equity Component Column 1 Line 79.

Low income housing tax credit investments are reported in Column (1) in accordance with *SSAP No. 93—Low Income Housing Tax Credit Property Investments*.

#### Column (2)

The average factor column is calculated as Column (3) divided by Column (1).

#### Column (3)

Summary amounts are entered for Column (3) based on calculations done on an individual property or joint venture basis. Refer to Column (8) of the real estate calculation worksheet (Figure 7).

#### Line (17)

Guaranteed federal low-income housing tax credit (LIHTC) investments are to be included in Line (17). There must be an all-inclusive guarantee from an ARO-rated entity that guarantees the yield on the investment.

#### Line (18)

Non-guaranteed federal LIHTC investments with the following risk mitigation factors are to be included in Line (18):

- a) A level of leverage below 50 percent. For a LIHTC Fund, the level of leverage is measured at the fund level.
- b) There is a tax credit guarantee agreement from general partner or managing member. This agreement requires the general partner or managing member to reimburse investors for any shortfalls in tax credits due to errors of compliance, for the life of the partnership. For an LIHTC fund, a tax credit guarantee is required from the developers of the lower-tier LIHTC properties to the upper-tier partnership.

#### Line (19)

State LIHTC investments that at a minimum meet the federal requirements for guaranteed LIHTC investments.

#### Line (20)

State LIHTC investments that at a minimum meet the federal requirements for non-guaranteed LIHTC investments.

#### Line (21)

State and federal LIHTC investments that do not meet the requirements of lines (17) through (20) would be reported on Line (21).



(3) <del>(2)</del>			0.11150	<del>0.01750-120</del>			
↓							
(4) <del>(3)</del>			0.11150	<del>0.01750-120</del>			
↓							
(399)	Total Investment Real Estate						
	Total Real Estate (Line (199) +						
(499)	Line (299) + Line (399) )						
<b>Schedule BA Assets with characteristics of Real Estate</b>							
(4)	All Assets Without Encumbrances <sup>†</sup> All Joint Ventures w/o Encumbrances <sup>†</sup>	XXX	0.13230	XXX		XXX	
(1)							
(2)							
	All Assets With Encumbrances: All Properties With Encumbrances:						
(3) <del>(2)</del>			0.13230	<del>0.01750-200</del>			
↓							
(4) <del>(3)</del>			0.13230	<del>0.01750-200</del>			
↓							
(899)	Total Schedule BA Real Estate						

Note that column (2) is the book/adjusted carrying value net of any encumbrances, while column (4) is the fair value of the property not reduced for any encumbrances.

<sup>†</sup> For each category, each property Line (1) should also exclude properties or joint ventures that have a negative book/adjusted carrying value. These should be listed individually, including those for which there is no encumbrance.

<sup>&</sup> Column (7) is Column (5) times  $(1 - (factor) * (Column (4) - (Column (2) + Column (3))) / (Column (2) + Column (3)))$ , but not less than zero.

<sup>‡</sup> Column (86) is calculated as  $(Column (2) plus Column (3))$  multiplied by Column (74).

<sup>§</sup> Column (97) is calculated as Column (3) multiplied by Column (65).

<sup>\*</sup> Column (108) is calculated as ~~the sum of~~ Column (86) ~~minus~~plus Column (97), but not less than ~~zero or more than~~ Column (2) ~~1.3% nor more than 45% of column (2), and not less than zero.~~

**ASSET CONCENTRATION  
FACTOR  
LR010**

*Basis of Factors*

The purpose of the concentration factor is to reflect the additional risk of high concentrations in single exposures (represented by an individual issuer of a security or a holder of a mortgage, etc.) The concentration factor doubles the risk-based capital pre-tax factor (with a maximum of 45 percent pre-tax) of the 10 largest asset exposures excluding various low-risk categories or categories that already have a maximum factor. Since the risk-based capital of the assets included in the concentration factor has already been counted once in the basic formula, the asset concentration factor only serves to add in the additional risk-based capital required. The calculation is completed on a consolidated basis; however, the concentration factor is reduced by amounts already included in the concentration factors of subsidiaries to avoid double-counting.

*Specific Instructions for Application of the Formula*

The 10 largest asset exposures should be developed by consolidating the assets of the parent with the assets of the company's insurance and investment subsidiaries. The concentration factor component on any asset already reflected in the subsidiary's RBC for the concentration factor should be deducted from Column (4). This consolidation process affects higher tiered companies only. Companies on the lowest tier of the organizational chart will prepare the asset concentration on a "stand alone" basis.

The 10 largest exposures should exclude the following: affiliated and non-affiliated common stock, affiliated preferred stock, home office properties, policy loans, bonds for which AVR and RBC are zero, NAIC 1 bonds, NAIC 1 unaffiliated preferred stock, NAIC 1 Hybrids, CM 1 Commercial and Farm Mortgages and any other asset categories with RBC factors less than 0.8 percent post-tax (this includes residential mortgages in good standing, insured or guaranteed mortgages, and cash and short-term investments).

In determining the assets subject to the concentration factor for both C-1o and C-1cs, the ceding company should exclude any asset whose performance inures primarily (>50 percent) to one reinsurer under modified coinsurance or funds withheld arrangements. The reinsurer should include 100 percent of such asset. Any asset where no one reinsurer receives more than 50 percent of its performance should remain with the ceding company.

Assets should be aggregated by issuer before determining the 10 largest exposures. Aggregations should be done separately for bonds and preferred stock (the first six digits of the CUSIP number can be used as a starting point) (please note that the same issuer may have more than one unique series of the first six digits of the CUSIP), mortgages and real estate. Securities held within Schedule BA partnerships should be aggregated by issuer as if the securities are held directly. Likewise, where joint venture real estate is mortgaged by the insurer, both the mortgage and the joint venture real estate should be considered as part of a single exposure. Tenant exposure is not included. For bonds and unaffiliated preferred stock, aggregations should be done first for classes 2 through 6. After the 10 largest issuer exposures are chosen, any NAIC 1 bonds, NAIC 1 unaffiliated preferred stock or NAIC 1 hybrids from any of these issuers should be included before doubling the risk-based capital. For some companies, following the above steps may generate less than 10 "issuer" exposures. These companies should list all available exposures.

Replicated assets other than synthetically created indices should be included in the asset concentration calculation in the same manner as other assets.

The book/adjusted carrying value of each asset is listed in Column (2).

The RBC factor will correspond to the risk-based capital category of the asset reported previously in the formula before application of the size factor for bonds. The RBC filing software automatically allows for an overall 45 percent RBC cap.



Lines (17) through (22)

The Asset Concentration RBC Requirement for a particular property plus the Real Estate RBC Requirement for a particular property cannot exceed the book/adjusted carrying value of the property. Any properties exceeding the book/adjusted carrying value must be adjusted down to the book/adjusted carrying value in Column (6) of the Asset Concentration.

Line (18), Column (4) is calculated as Line (17), Column (2) multiplied by 0.~~2300~~1100 plus Line (18), Column (2) multiplied by 0.~~2000~~092500, but not greater than Line (17), Column (2). Line (20), Column (4) is calculated as Line (19), Column (2) multiplied by 0.~~1500~~ plus Line (20), Column (2) multiplied by 0.~~0925~~1200, but not greater than Line (19), Column (2). Line (22), Column (4) is calculated as Line (21), Column (2) multiplied by 0.~~12300~~ plus Line (22), Column (2) multiplied by 0.~~1125~~2000, but not greater than Line (21), Column (2).

Proposal  
Risk Based Capital for  
Real Estate Assets  
March 29, 2021

## Executive Summary

The following recommendations are the product of analyses conducted or sponsored by the ACLI, the NAIC, and industry real estate specialists. These recommendations represent the final product of discussions and deliberations that began in 2012 and are inclusive of changes meant to address questions and recommendations posed by members of the Investments Risk Based Capital (IRBC) and Life Risk Based Capital (LRBC) NAIC working groups, the American Academy of Actuaries (AAA) and other interested parties.

Implementation of the recommendations described below will ensure that the RBC assessment methodology and charges for the real estate sector more accurately reflect the sector's underlying risks and will promote consistency with the methodology used in other asset sectors.

- A. Schedule A Real Estate Factor. Update the C-1 factor for real estate assets held on Schedule A to be a base factor of **11%**. This recommended factor is based on an estimated worst cumulative loss at a 95<sup>th</sup> – 96<sup>th</sup> percentile confidence level based on historical experience, which suggested a base factor of 9.5%. As was done with common stock, we used values at 2 years loss horizon. An additional 1.5% charge is recommended to account for potential disparity in individual life company real estate portfolio composition and uncertainty surrounding the longer-term implications of the COVID-19 pandemic on the commercial real estate sector. The proposed factor would be applicable for all categories of real estate reported in Schedule A of the Life and Health Annual Statement. (See Section A)
- B. Unrealized Capital Gains/Losses. Recognize that the factors are based on analysis of market values while the statutory accounting basis is depreciated cost. Since RBC is to account for possible loss of statutory capital, when the statutory asset value is lower than market value, the risk of loss from that lower value is lower than the factors developed using market value performance data. To adjust for this discrepancy within RBC, reflect the impact of the margin from unrealized gains and losses on the potential for loss of statutory surplus. (See Section B)
- C. Encumbrances. Revise the RBC factor for real estate encumbrances following the principles of the current RBC with factors to be consistent with the commercial mortgage RBC framework adopted in 2013. (See Section C)
- D. Schedule BA Real Estate Factor. Revise the factor for Schedule BA real estate to **13%**, equivalent to the proposed factor for Schedule A plus a premium of about 20% over the Schedule A factor. All other mechanics would parallel the proposal for Schedule A Real Estate. (See Section D)

## Scope

This proposal is developed for the Life and Fraternal Risk Based Capital formulas. This proposal does not address possible adjustment to the Asset Valuation Reserve (AVR) or tax adjustments for these assets. Finally, this proposal does not directly address the factors for the Health Risk Based Capital or for the Property & Casualty Risk Based Capital.

## Background

RBC is used to measure potential future excess losses and their effect on statutory capital. The goal is to help regulators identify weakly capitalized companies, given risks that individual companies are taking. This proposal is consistent in methodology with recent RBC development work for common stock and bonds in areas such as the confidence levels for statistical analyses, while recognizing real estate's unique characteristics.

There is limited historical perspective available on the original construction methodology supporting the currently applied RBC factors for real estate investments. The following general description is taken from a 1991 report covering RBC C-1 (default) factors:

“There is little data upon which to base requirements for this asset group. Company practice, as shown by the 1990 intercompany survey, indicates factors in the range of 5 percent to 20 percent. An article in the May-June 1991 Financial Analysts Journal (Ennis and Burk) proposes that real estate volatility is about 60 percent of that for common stock, suggesting a factor in the range of 18 percent. If one assumes full tax credit for losses, this converts to a factor of about 10 percent which is the Subcommittee's recommendation for all real estate subcategories, except real estate acquired by foreclosure for which the factor is 15 percent. This is one of several asset groups which deserve continuing study to assure that risk-based capital requirements are adequate and appropriate.”

Since the original real estate factor estimation, which was based on the somewhat rudimentary analysis described above, there has been a very significant improvement in the availability of performance data for the sector. While there have been additional analyses conducted for this sector since the initial methodology and factor adoption (i.e., AAA proposals in September and December 2000), to date there have been no significant changes made to the C-1 factor for real estate.

Since 2000, the pre-tax base C-1 factor for real estate applied in the sector has been 15%. The derivation of this factor, as described above, was based on 60% of the common stock factor, adjusted for taxes. The logic at the time was that the volatility of real estate was assumed to be around 60% of common stock volatility<sup>1</sup>. This assumption was reportedly based on inferences made from historical real estate investment trust (REIT) performance, as a robust private market performance history was not available at that time. REITs are companies that use debt in owning and managing properties and have performance characteristics different from that of the underlying commercial real estate<sup>2</sup>. The same 15% C-1 factor currently applies to virtually all directly held real estate, including company occupied properties, investment properties for long-term hold, and properties held for sale, but excludes properties acquired through foreclosure which were perceived to be riskier.

It is also important to note, that while real estate is considered an equity asset, statutory accounting requires it to be valued at depreciated cost. Any capital improvements are added to the statutory book value, and then depreciated from that time. If and when there is an other-than-temporary impairment, the book value is revised down to then market value, if lower, and depreciated going forward. Throughout this document this is referred to as depreciated cost.

The real estate sector has matured significantly in the last 30 plus years, as institutional investment has become prevalent and public capital markets have become more developed. Information transparency has increased materially and the market has become much more “efficient”. Valuation and accounting policies and standards,

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<sup>1</sup> Various studies have since shown that equity real estate in general has volatility well less than 60% of that of the S&P 500.

<sup>2</sup> The volatility of REIT performance is higher than the volatility of direct property performance primarily because REITs are leveraged investments, which results in greater volatility of results. Further, privately held property is not marked-to-market daily, trades infrequently, and tends to exhibit price changes rather slowly.

and increased regulation, have also increased standardization and invest ability. Ownership of commercial real estate is now much more widespread across institutions, including pension funds, than in the earlier period.

### A. Review of Base C-1 RBC Factor – Support for Change to 11%

Analyses conducted or sponsored by the ACLI, the NAIC, and industry specialists suggest that the base C-1 RBC factor applicable to Schedule A real estate (including investment, foreclosed and held for sale real estate) should be set at 9.5%. An additional 1.5% cushion is recommended to account for potential disparities between the composition of the index used and individual life insurance company real estate portfolios, plus uncertainty surrounding the impact of COVID-19 on the longer term performance of commercial real estate. This recommendation is based primarily upon the NCREIF National Property Index (NPI) Price Variation Analysis presented below.<sup>3</sup> Note that the support presented in this Section A represents an updated methodology meant to address certain concerns expressed by the American Academy of Actuaries regarding representation of the Global Financial Crisis in the data set.

The primary methodology employed to determine the recommended charge is analyses based on actual historical real estate investment performance data from the NCREIF Property Index (NPI), appended by data from FRC/Kelleher to extend the series through earlier years of 1961-1977.<sup>4</sup> This data set is collectively referred to as “NPI” in this analysis.

*Results of Price Variation Model of NCREIF Property Index (“NPI”)*

	<b>1 YR HP Cumulative Loss</b>	<b>2 YR HP Cumulative Loss</b>	<b>3 YR HP Cumulative Loss</b>	<b>4 YR HP Cumulative Loss</b>
95-PCT	4.3	9.3	10.1	10.1
96-PCT	5.6	9.7	10.6	10.6

The above table presents the results of analyses of historical NPI total return data. The table presents the results of analyses based on both 95<sup>th</sup> percentile (PCT) and 96<sup>th</sup> PCT worst results in the historical data set. Further, the table presents cumulative losses at varying periods ranging from 1 to 4 years. Historically, downturns in real estate tend to last less than 3 years, so this period also represents the worst cumulative decline that would be observed even if the assumed period was extended further. The “cumulative” observations represent the largest cumulative loss experienced at any point in the period.

The recommendation of 9.5% is based on consideration of the maximum cumulative losses at both the 95<sup>th</sup> and 96<sup>th</sup> percentiles (“PCT”) during the observed period. This assumed period of loss is consistent with the assumption used for common stock. Importantly, based on historical performance data for the sector, the 11% recommended base factor would cover cumulative losses during a 2-year period at a 96.8% confidence level.

We also note that in using cumulative losses over time, there is no discounting for time value of money, and all analysis are conducted without any consideration of the federal income tax impact of the losses.

The use of actual historic quarterly returns across 60 years of industry experience provides for the incorporation of the impact of several economic cycles on supply and demand for commercial real estate and the impact on market

<sup>3</sup> See Appendix 1 for a detailed description of NCREIF and the NPI.

<sup>4</sup> Kaiser, Ronald W., The Long Cycle in Real Estate, Journal of Real Estate Research, Volume 14, Number 3, 1997.

values. This lengthy time period also allows for incorporation of the effects from earlier governmental impact on prices, such as from changes in the tax code in the 1980s.

### Considerations

#### 1. *Applicability of Index to Individual Life Company Portfolios*

The recommended decrease in the RBC factor for Real Estate is based on the performance of a large and well diversified commercial real estate benchmark performance index (i.e., NCREIF-National Property Index, NPI). The index includes quarterly data from all the major property types (office, retail, industrial, multifamily and hotel) across all regions of the US, which makes it broadly applicable to all of these major property types nationwide. Additionally, we compared the distribution of properties by type and by geographical region in the NCREIF database to the distribution of those held by the life insurance companies and found the distributions to be quite similar.

The question of the potential need for increased granularity for the RBC factor was considered thoroughly. In particular, we considered a different factor for company occupied as a class with lower risk than investment properties. However, granularity beyond the single factor representative of all US commercial real estate was deemed inappropriate due to 1) the relatively small size of the asset class, 2) the alignment of composition between the NPI and the life industry portfolio, and 3) regulations separate from RBC factors that address concentration risks and assure diversification of life company real estate portfolios.

Additionally, segmenting the NPI dataset into smaller granularities can be problematic. The NPI as of Q4-2020 consisted of just over 9,000 properties but roughly 30,000 properties have been in the index at some point during its 30+ year history. Over that history, the geographic and property type distribution of NPI has been constantly evolving. While the database of properties is large in total, segmenting it into more granular levels can produce sample sizes too small to be statistically sound. Beyond this, segmenting can add only limited additional value. The primary driver of real estate property performance is the national real estate cycle<sup>5</sup> as portrayed in the NPI. The pattern of real estate losses for both the industry and for individual companies is aligned with that cycle. In other words, the overall real estate cycle tends to dominate other effects including geography and property type. The strength of that national real estate cycle has been found in academic research to explain roughly 50% of the variation in property performance across all properties in the index.

#### 2. *Impact of Select Key Assumptions*

- Loss Horizon:** The period of time assumed for the accumulation of losses in the analysis (loss horizon) plays an important role in determining the appropriate amount of required capital. In this updated proposal, we suggest an 11% RBC factor, which is based on cumulative losses over 2 years. Real estate assets are typically held longer-term, often five years or greater. As the assets are more illiquid than publicly traded bonds or other securities, they are often used to back surplus, or longer-term liabilities. Liquidity is managed such that the timing of sale of real estate assets can often be strategically determined, thus avoiding realization of the larger maximum potential losses. The key focus is the length of economic cycles with losses. In past real estate cycles, the duration of losses typically spans a 2 to 3-year period, with the majority of losses during past downturns being materially concentrated within one year. Average holding periods for real estate assets are typically much longer than one year, averaging 10 years or longer, based on analysis periods and investment targets for most institutional investors. Given the statutory accounting for the asset class with declining book value and rigorous impairment requirements, it is normal for the

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<sup>5</sup> Risk and Returns of Commercial Real Estate: A Property Level Analysis, Liang Peng, Leeds School of Business, April, 2010, [http://www.reri.org/research/article\\_pdf/wp173.pdf](http://www.reri.org/research/article_pdf/wp173.pdf)

actual recognized impairment rates by insurance companies to be lower in both frequency and severity than market averages. This is primarily related to the existence of unrealized gains that must be exhausted prior to any recognition of losses.

- **Confidence Level:** The confidence level also plays an important role in determining the appropriate amount of required capital. The 9.5% suggested base factor generally corresponds to the losses modeled at between the 95<sup>th</sup> and 96<sup>th</sup> percentiles (PCT) over a worst cumulative period. The recommended 11% factor covers losses at a 96.8% confidence level, assuming maximum cumulative losses during a 2-year period.
- **Reserve Offset:** The development of the bond factors includes an offset for expected losses based on the principle that expected losses are covered by reserves. Real estate and common stock are both treated as equity assets which are generally viewed as supporting surplus and not reserves, and for which expected loss is not considered. The current RBC methodology for real estate equity does not include an offset for expected loss, as the basic contribution to AVR used as a proxy for expected loss is zero. Similarly, this proposal does not include an offset for expected loss<sup>6</sup>. The rationale for excluding the mitigating effects of the expected loss include:
  - There is no basic contribution to AVR for real estate investments.
  - Real estate is a small asset class, and analyses required to develop appropriate offsets for expected loss are deemed unnecessary.
  - Discussions around the appropriate relationship between expected loss, AVR, and RBC are ongoing. In the future, as precedent is set in the other larger asset classes where the effects are likely even more important, the potential integration of an offset in the real estate equity sector should be reconsidered.
- **Income:** In the development of RBC factors for bonds, income in excess of the expected loss offset discussed above is not included in the modeling and is assumed to be used for policyholder liabilities and not available as a loss offset. For common stock, and for real estate as equity investments, the total return is used. First, since the equity assets are generally presumed to back surplus and not policyholder reserves, the policyholder does not have claim to the income. Consistent with the lack of offset for expected loss, the income is available. When bonds default there is no subsequent income available to the investor. Real estate does not default, and even if subject to impairment, continues to produce income. The Real Estate values were therefore developed consistent with common stock using a total return view of the assets.
- **Taxes:** All of the modeling discussed in this project was done on a “cash” basis. No consideration has been given to the effect of these losses on the tax liability of the investor. Since losses reduce taxes that otherwise would be paid by the investor, this will result in a lower post-tax RBC factor than the recommended level.
- **Property acquired through foreclosure:** Property acquired through foreclosure should be treated the same as any other real estate. If the insurer forecloses on a mortgage and obtains the property, statutory accounting requires the property to be brought onto the company’s books at then current market value. As a result, the value is no different than any other property purchased in the course of business. If the property has low income potential, that will be reflected in its market value.

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<sup>6</sup> There are currently discussions at the NAIC regarding whether RBC assessments should be adjusted to remove the expected losses for sectors. In real estate equity’s case, we are uncertain as to the materiality of adjusting for expected losses. The same could be said for common stock, as expected loss is a fixed income concept and would be difficult to apply to equities.

3. **Application of stochastic approaches:** While we considered stochastic approaches, a fully stochastic model was deemed inappropriate by the working group due in large part to the limited amount of quarterly historical observations (limited when compared to the amount of daily transaction data available for public stocks and bonds). It is possible that a stochastic analysis could be performed wherein an algorithm would be built and calibrated to actual history. However, if the algorithm is calibrated to historical performance, we believe that the results of such an analysis would be consistent with our work, which includes periods of very significant market stress in the sector. Note that the work performed in both common stocks and bonds excluded significant periods of stress in those markets, given changes in the economy from the advent of the creation of the Federal Reserve. Both asset classes have public data going back to early in the 19th century, though of varying quality. We used the full historic track record for commercial real estate (CRE) that is available and includes the downturn in CRE from the S&L crisis in the 1990s, the effects of the dot-com bubble, the global financial crisis and the most recent effects of COVID-19 pandemic in 2020.

## B. Adjust RBC to recognize risk impact of unrealized gains and losses

We also recommend implementation of an adjustment to individual property RBC that will account for the cushion against statutory losses that is often created in real estate assets as they are held through time. The RBC factor that is recommended in Section A is calibrated based on volatility of market values through time. However, real estate assets are reported for statutory accounting using depreciated cost. In real estate, the assets depreciate annually, so each year the asset's statutory value will be adjusted downward, even though the actual market value of the asset is more likely to be increasing. Annual depreciation rates in real estate are often 2% or higher. This creates an "unrealized gain" that serves as a cushion that must be completely eroded as market values fall before there would be any risk of loss of statutory capital. Since risk to statutory capital varies based on the size of this margin, a single factor applied to the statutory value does not appropriately measure the risk. This adjustment reflects the varying amount of risk resulting from this margin.

Fair value of real estate assets held by Life Companies is reported in Schedule A for each individual property. This fair value includes the changing market value of the asset and the impact of any improvements that have been capitalized. This excess of market value over the statutory value is a cushion against loss of statutory capital.

We propose that the applied base RBC factor be adjusted using a ratio of 1/2 of the difference between the reported fair value and statutory book value, to the statutory book value. Note that in situations where fair value is less than statutory, the RBC factor will be increased. We recommend that the final RBC for any property not be less than the amount determined using the factor for a Baa bond applied to the BACV.

Examples of the application of the adjustment are presented in the below table and are hypothetical. If a market value were lower than book value, that property would be reviewed for possible impairment. If the value were down temporarily, this adjustment would provide a short-term increase in RBC. If the value is down on a permanent basis, this may provide an early increase in RBC prior to taking an impairment.

The specific formula including adjustment would be:

$$\text{RBC\%} = \text{Max} [\text{NAIC2\%}, 11.0\% * (1 - 1/2 * (\text{MV} - \text{BVg}) / \text{BVg})]$$

BV	MV	RBC
100	50	13.75%
100	100	11.0%
100	150	8.75%
100	200	5.50%
100	250	2.75%
100	300	0.00%*

\* There is an overall minimum of 1.30%

BVg is the book value gross (prior to netting the encumbrances)

NAIC2 is the NAIC2 corporate bond RBC charge

In an effort to assess the effects of statutory accounting on actual life insurance company experience, a simulation was constructed to analyze hypothetical life company portfolio performance given statutory accounting. The results of this study demonstrate the materially lower statutory losses as compared to market value losses during downturns, and thus provide support for the proposed adjustment.

In 2013 the ACLI, NAIC, and Industry real estate specialists engaged Jeff Fisher (Academic Consultant), who is a special academic consultant to NCREIF, to use the historical property level performance data in the NPI to construct simulated historical performance under statutory accounting rules. The analysis leveraged all available NPI data history at the required level of granularity at that time, which included the period of 1978Q2 through 2013Q1. This analysis was performed to provide additional insight around the impact of statutory accounting (recognition of depreciation, impairment rules, etc.) on the historical performance and risk to capital for insurance companies.

The simulation used the actual historical market experience of the NPI at the individual property level, wherein estimates of statutory accounting were applied. This hypothetical exercise was not intended to serve as the primary basis for determination of an appropriate RBC factor. Rather, the results of this hypothetical exercise illustrate the effect that statutory accounting (i.e., with depreciating book values and impairment rules/requirements) can have on the timing and severity of loss recognition relative to market value changes and provide additional evidence that the primary analysis is reasonable, if not conservative, given the effect of statutory accounting.

The simulation made the following assumptions:

4. Beginning Book Value for statutory accounting when properties enter the data set is set equal to then current market value.
5. For Book Value projections, depreciation is over 20 years (5% per year) for all properties.
6. Properties are tested for impairment quarterly, with impaired properties removed from index after recognizing the loss from the impairment. Any income received to that point is retained in the modeling.
7. As in statutory accounting, there is no accounting for property value increases, only losses are recognized in the analysis.
8. There is no offset related to expected loss (i.e., there is no accounting for AVR).



**Example of Simulated Statutory Property Performance:** *In the simulation, individual asset market values are recorded in the quarter a property enters the index. At this beginning quarter, book value is set equal to market value, which is assumed to be the cost to acquire and is therefore consistent with statutory accounting. Every quarter forward, NCREIF has updated estimates of market value for the asset.<sup>7</sup> Future statutory carrying value of the asset (depreciated book value) is estimated using the generic depreciation assumptions listed above. In every quarter, we estimate whether an impairment would have been recognized using statutory accounting rules, the then current market value, anticipated future property cash flows as implied from that market value, and then current statutory carrying value. Aggregate impairment rates by quarter are tracked through time, which are useful for comparison to actual market value losses reported for the index.*

Using the above assumptions in the simulation model and including all properties over the entire history of the NPI, the following chart presents quarterly total losses as a percent of market value. As the chart below illustrates, the largest quarterly loss rate for the simulated index performance was just slightly over 2% during the recent Great Recession. Further, over this entire simulated history there are only a few quarters with significant simulated statutory losses. Losses were concentrated in the real estate market downturns of the early 1990s and in 2009 following the Great Recession.

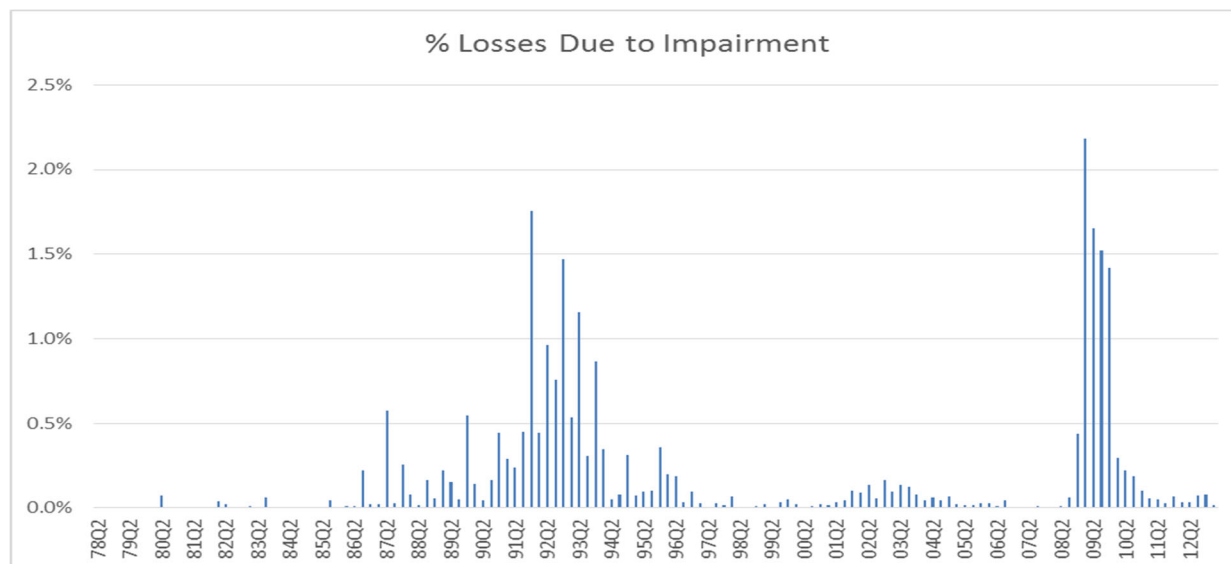
The largest one-year loss for the full history of the simulated data occurred during the Great Recession, when the simulated one-year cumulative statutory loss was approximately 7% during the year 2009.<sup>8</sup> During 2009, the actual recorded total return for properties in the NPI was a cumulative loss of 17%. This decline occurred amid the most severe downturn in history, based on its intensity. However, the value decline during this period was relatively short-lived, as the negative quarterly total returns persisted for only six quarters.

Given the event was an extreme outlier in the history of real estate performance, the probability of it reoccurring is extremely low within the modeled random sampling. In simple terms, since the 17% decline in one year occurred once in the 36-year exposure, the implied frequency is 2.8% probability (i.e., one year out of 36) while RBC is set to a 5% (or 95% confidence) level. In addition, this temporary reduction in market value would not necessarily have led to equal statutory impairments both since market value is typically in excess of book value, and requirements for statutory impairments do not immediately recognize all changes to market price. Thus, statutory accounting can lessen the severity of recognized losses during market downturns.

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<sup>7</sup> The NCREIF database relies on appraisals to establish value where there has not been a transaction. The simulation projected MV could be viewed as projected appraised value. Various studies of CRE appraisals have been performed and show that the appraisals are good estimates of MV, though they may lag actual market changes. This assumption does not affect the validity or applicability of the results.

<sup>8</sup> While the 7% maximum simulated loss should provide a degree of comfort in the reasonableness of the proposed factor, it is not directly comparable in concept to either the proposed factor or the cited actual historic market value based index returns.



As further evidence of the impact of statutory accounting, we examined actual losses incurred during the Global Financial Crisis, which is the most severe real estate market downturn within the 60-year data analysis period. The ACLI conducted an analysis of the life insurance industry's actual performance during 2008 through 2012. The analysis examined all impairments of real estate investments, along with recognized losses on sale of real estate investments, during the period using data from Annual Statement exhibits Schedule A Parts 1 and 2. The industry reported cumulative losses of about 3.5% over that 5-year period, significantly lower than the 9.5% recommended factor. These reported industry losses include Other-Than-Temporary Impairments and losses on sale as reported in the Annual Statement schedule. Note that the analyses did not account for the declines in value of assets that are reported at fair value for statutory purposes.

### C. Update RBC charge on real estate encumbrances

Under Statutory Accounting rules, real estate is held at depreciated cost net of encumbrances. Under the current proposal, RBC will be assessed by estimating the risk on the total property, then providing a credit for the value of the encumbrance based on the equivalent risk of the mortgage. The rationale for this is that the total underlying risk of loss on the property is the same whether or not there is an encumbrance, but the holder of the encumbrance bears part of the risk and the holder of the property bears the balance. Therefore, the risk is split effectively by developing the risk for the entire real estate value, then subtracting the amount of risk ascribed to the mortgage. We chose the approach of a reduced factor based on the average factor for mortgages in light of the small size of the real estate asset class, and the even smaller amount of encumbrances. For implementation, we recommend changing the RBC worksheet to show the RBC for the entire real estate, then a credit for the amount of the encumbrance.

The current encumbrance factors were based on the current RE factor of 15% reduced by the average RBC for commercial mortgages, which was 3.00% under the prior RBC formula. The proposed factor for Real Estate is 11.0%, and the average commercial mortgage factor that was developed as part of the commercial mortgage RBC proposal in 2013 was 1.75%. As an example, consider the following:

Property Value	Amount	RBC factor	\$RBC
No encumbrance	100	11.0%	11.0
With 60% LTV mortgage			
- Property Value	100	11.0%	11.0
- Equity value	40		
- Encumbrance	60	- 1.75%	-1.05
- Real Estate RBC	40	24.9%*	9.95
- Mortgage RBC <sup>1</sup>	60	1.75%	1.05
- Total	100		11.0

\* Equals the RBC value (9.95) divided by the real estate equity value (40).

<sup>1</sup> This is an estimate of the value of the risk attributable to the mortgage by assuming that the mortgage was held by a life insurance company and estimating the resulting RBC.

This table illustrates our suggestion that the same amount of total capital be held whether a property is held with no encumbrance, or if it has an encumbrance, to reflect the constant level of risk of loss at the property irrespective of the capital stack. The RBC calculated on the encumbrance derives from the price risk of the property. It is to reflect that there is more risk as a percent of the equity investment, though not in total risk, to the equity investment of an investor in a property when leverage is used compared to when there is no leverage and a property is owned outright. In the case of having an encumbrance, the RBC held by the lender, when added to the RBC held by the owner on its equity and its encumbrance, sum to the same amount as if the property was held with no encumbrance.

In the current RBC, the result of this formula on encumbrances includes a maximum amount equal to 100% of the book adjusted carrying value of the real estate. While recognizing that the loss is generally limited to 100% of the carrying value, we believe that an RBC factor of 100% is excessive, and that the limit should be set at 45% of the carrying value. We note that for common stock, the combined factor at the maximum Beta is 45%.

#### D. Update Schedule BA Real Estate Factor

Real Estate held in joint ventures (JVs), limited liability companies (LLCs) or similar structures are recorded in Schedule BA, on lines 2199999 and 2299999. Currently, these assets are assessed RBC with a factor (23%) that is 50% higher than the factor for wholly owned real estate reported in Schedule A. The documentation for Schedule BA assets from the original RBC development articulates a premium over the RBC for Schedule A assets to account for additional risk associated with potentially lower transparency and control within the structures. However, since that time, data availability and industry experience has provided evidence that this premium is overly conservative, if not altogether unnecessary for the assets classified as real estate. We propose that the factor for Schedule BA real estate be adjusted to **13%**, equivalent to the proposed factor for Real Estate recorded on Schedule A plus a premium of about 20% of the Schedule A factor for conservatism. All of the other mechanics and components described above for Schedule A real estate would also apply consistently for the real estate recorded on Schedule BA. This proposal is supported by the following:

- Real estate investments today are very often executed through corporate structures such as LLCs simply to mitigate risks. Institutional investors regularly use these structures to reduce the risk of loss from contingent liabilities. Contingent liabilities could be associated with the operations of the property (e.g.,

slip-and-falls), disputes with vendors or tenants, or debt. LLCs insulate investors from losses above the value of the net equity in an individual investment. Institutional investors also often use LLCs as holding companies for a series of single-asset LLCs, in order to better organize a portfolio in a manner that limits liabilities along each level of the corporate ownership structure.

- The NAIC recently approved the reclassification of certain wholly owned single owner, single asset LLCs to be reported on Schedule A. This was due to the recognition that the LLC structure itself did not produce additional risk. In this approval, the NAIC also agreed that additional reclassification could be proposed and approved when additional supporting materials were submitted. Rather than seeking a change in the accounting, we are proposing to adjust the RBC to reflect the risk.
- Partnership structures are often used to align interests between the life insurance company and local partners who have superior access to the market and property development, asset management and property management skills, while still maintaining control of significant investment decisions, especially around liquidity. This better execution and alignment of interest can result in better investment performance and even lower market risk.
- Partnership structures reduce the capital commitment of the life insurance company to an individual transaction, and thus can add portfolio diversification.
- A study was performed to compare the actual realized risk of institutional real estate investments held through JV's to those of directly-held real estate investments. Jeffrey Fisher, a Ph.D. and consultant for NCREIF, broke down all properties in the NCREIF Property Index into joint venture and wholly owned properties to compare the performance since 1983. Mr. Fisher's analysis found as follows:
  - Since 1983, the average quarterly return for JV properties was 2.35% versus wholly owned properties at 1.97%. This performance gap widened over time.
  - The standard deviation of returns for JV properties (2.4%) was only modestly higher than the standard deviation of wholly owned properties (2.2%).
  - Values of the wholly owned properties fell more than the values of JV properties from peak-to-trough during the Global Financial Crisis (GFC).
  - In terms of return dispersion during the GFC's worst quarter, wholly owned properties had the largest negative return and JV properties had the highest positive return.
  - JV properties were found to have shorter average holding periods than wholly owned properties, suggesting potentially higher liquidity in JV structures.

In summary, real estate held through joint ventures has performed consistently with and perhaps even slightly better than, wholly owned real estate. Based on this research, and in recognition of the several legitimate risk/return benefits of ownership through structures, we propose that real estate held on schedule BA use a factor of 13%, which is the factor for wholly owned real estate held on schedule A with a modest premium.

## Appendix 1

The historical National Council of Real Estate Investment Fiduciaries (NCREIF) database goes back to December 31, 1977, and as of Q4-2020 consisted of approximately 9,000 properties. NCREIF collects 67 data fields each quarter that consist of financial information such as Market Value, NOI, Debt, and Cap Ex, as well as descriptor data such as Property Type and Subtype, Number of Floors, Square Footage, Number of Units, and Location.

The flagship index of NCREIF is the NCREIF Property Index (NPI), which is a quarterly index tracking the performance of core institutional property markets in the U.S. The objective of the NPI is to provide a historical measurement of property-level returns to increase the understanding of, and lend credibility to, real estate as an institutional investment asset class. The NPI is comprised exclusively of operating properties acquired, at least in part, on behalf of tax-exempt institutions and held in a fiduciary environment. Each property's return is weighted by its market value. The NPI includes properties with leverage, but all returns are reported on an unleveraged basis. The NPI includes Apartment, Hotel, Industrial, Office and Retail properties, and sub-types within each type. The index covers all regions of the US, which makes it broadly applicable to all of these major property types nationwide. Additionally, we have also done a comparison of the distribution of properties by type and by geographical region between those in the NCREIF database and those held by the life insurance companies and found them to be quite similar.

Over the history of the NPI data, there have been two severe downturns, in the 1990s and the recent GFC; as well as a shallow recession corresponding to the 2001 economic recession that did not produce negative total returns for real estate. Given the time series of the data, the index does reflect 'tail events' such as the Great Recession thus appropriately capturing the downturn in the employed primary methodology for estimation of the appropriate RBC charge.

Additional information on NCREIF and the NCREIF Property Index (NPI) can be found here:

<https://www.ncreif.org/data-products/property/>

## Appendix 2

The difference between market value and statutory value (depreciated cost) is not included in surplus within statutory accounting. As a result, the risk of future impairments of statutory value would be much less for a company where the current market value of its portfolio of properties is well in excess of statutory carrying value, especially compared to one where market value is much closer to statutory carrying value.

Our primary analysis was based on market values, and therefore overstates the risk relative to statutory accounting. We are not proposing that statutory accounting for commercial real estate should change, but rather partially leveling the playing field for properties that have been held for extended periods with market value well in excess of statutory carrying value, versus recent acquisitions with no such unrealized gains. And we are proposing a floor charge equal to that for an NAIC 2 bond (currently 1.30%) so that capital will never be lower.

The following provides a numerical example. Assume a property held at a book value of \$100 with a market value of \$150. The NCREIF data measures changes in market value, and the **11%** proposed factor would make provision for a loss of value to a value down to \$133.50. Under the RBC process, factors are applied to the book value and normally do not recognize that unrealized gain. Since real estate is held at book value which in this case is \$100, and is below this market value, effectively there an increased margin against the loss of statutory capital in excess of the amount of RBC.

For an asset with a market value well in excess of the carrying value, the reduction in RBC is minimal compared to the large-implied reserve. Similarly, in those relatively few circumstances where an asset will have a market value less than book value, the RBC amount would increase, to reflect the increased likelihood of a loss to carrying value. This increase in RBC would likely be in advance of an actual impairment, which would provide earlier visibility and recognition of weakening market conditions.

## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group     | <input checked="" type="checkbox"/> Life RBC (E) Working Group |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup         |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input type="checkbox"/> P/C RBC (E) Working Group        | <input type="checkbox"/> Longevity Risk (A/E) Subgroup         |

<b>DATE:</b> <u>4/22/21</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Dave Fleming</u>	Agenda Item # <u>2021-11-L</u>
<b>TELEPHONE:</b> <u>816-783-8121</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>d Fleming@naic.org</u>	<b><u>DISPOSITION</u></b>
<b>ON BEHALF OF:</b> <u>Life Risk-Based Capital (E) Working Group</u>	<input type="checkbox"/> ADOPTED <u>6/11/21</u>
<b>NAME:</b> <u>Philip Barlow, Chair</u>	<input type="checkbox"/> REJECTED _____
<b>TITLE:</b> <u>Associate Commissioner of Insurance</u>	<input type="checkbox"/> DEFERRED TO _____
<b>AFFILIATION:</b> <u>District of Columbia</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____
<b>ADDRESS:</b> <u>1050 First Street, NE Suite 801</u>	<input checked="" type="checkbox"/> EXPOSED <u>4/22/21</u>
<u>Washington, DC 20002</u>	<input type="checkbox"/> OTHER (SPECIFY) _____

#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Health RBC Blanks       | <input type="checkbox"/> Property/Casualty RBC Blanks       | <input checked="" type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input type="checkbox"/> Property/Casualty RBC Instructions | <input checked="" type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |   |   |

#### DESCRIPTION OF CHANGE(S)

This proposal incorporates bond factors proposed by the American Council of Life Insurers (ACLI) which are based on the work of Moody's Analytics for the expanded presentation of bond designation categories in the annual statement and risk-based capital (RBC) schedules.

#### REASON OR JUSTIFICATION FOR CHANGE \*\*

The expanded presentation of bonds is a result of the work of the Investment Risk-Based Capital (E) Working Group. This proposal presents alternative factors to those proposed by the American Academy of Actuaries (Academy).

#### Additional Staff Comments:

- 4-22-21: Proposal was exposed for comments (DBF)
- 6-11-21 Proposal was adopted with the base factors as presented in the April 2021 report, the inclusion of the adjusted tax factors for LR030 and Moody's Analytics' revised bond size factors as presented in the June 2021 report (DBF)

\*\* This section must be completed on all forms.

Revised 2-2019

BONDS

SVO Bond			(1)	(2)
Designation Category		Annual Statement Source	Book / Adjusted	RBC
Long Term Bonds			Carrying Value	Requirement
(1)	Exempt Obligations	AVR Default Component Column 1 Line 1	X 0.00000	=
(2.1)	NAIC Designation Category 1.A	AVR Default Component Column 1 Line 2.1	X 0.00158	=
(2.2)	NAIC Designation Category 1.B	AVR Default Component Column 1 Line 2.2	X 0.00271	=
(2.3)	NAIC Designation Category 1.C	AVR Default Component Column 1 Line 2.3	X 0.00419	=
(2.4)	NAIC Designation Category 1.D	AVR Default Component Column 1 Line 2.4	X 0.00523	=
(2.5)	NAIC Designation Category 1.E	AVR Default Component Column 1 Line 2.5	X 0.00657	=
(2.6)	NAIC Designation Category 1.F	AVR Default Component Column 1 Line 2.6	X 0.00816	=
(2.7)	NAIC Designation Category 1.G	AVR Default Component Column 1 Line 2.7	X 0.01016	=
(2.8)	Subtotal NAIC 1	Sum of Lines (2.1) through (2.7)		
(3.1)	NAIC Designation Category 2.A	AVR Default Component Column 1 Line 3.1	X 0.01261	=
(3.2)	NAIC Designation Category 2.B	AVR Default Component Column 1 Line 3.2	X 0.01523	=
(3.3)	NAIC Designation Category 2.C	AVR Default Component Column 1 Line 3.3	X 0.02168	=
(3.4)	Subtotal NAIC 2	Sum of Lines (3.1) through (3.3)		
(4.1)	NAIC Designation Category 3.A	AVR Default Component Column 1 Line 4.1	X 0.03151	=
(4.2)	NAIC Designation Category 3.B	AVR Default Component Column 1 Line 4.2	X 0.04537	=
(4.3)	NAIC Designation Category 3.C	AVR Default Component Column 1 Line 4.3	X 0.06017	=
(4.4)	Subtotal NAIC 3	Sum of Lines (4.1) through (4.3)		
(5.1)	NAIC Designation Category 4.A	AVR Default Component Column 1 Line 5.1	X 0.07386	=
(5.2)	NAIC Designation Category 4.B	AVR Default Component Column 1 Line 5.2	X 0.09535	=
(5.3)	NAIC Designation Category 4.C	AVR Default Component Column 1 Line 5.3	X 0.12428	=
(5.4)	Subtotal NAIC 4	Sum of Lines (5.1) through (5.3)		
(6.1)	NAIC Designation Category 5.A	AVR Default Component Column 1 Line 6.1	X 0.16942	=
(6.2)	NAIC Designation Category 5.B	AVR Default Component Column 1 Line 6.2	X 0.23798	=
(6.3)	NAIC Designation Category 5.C	AVR Default Component Column 1 Line 6.3	X 0.30000	=
(6.4)	Subtotal NAIC 5	Sum of Lines (6.1) through (6.3)		
(7)	NAIC 6	AVR Default Component Column 1 Line 7	X 0.30000	=
(8)	Total Long-Term Bonds	Sum of Lines (1) + (2.8) + (3.4) + (4.4) + (5.4) + (6.4) + (7)		

(Column 1) should equal Page 2 Column 3 Line 1 + Schedule DL Part 1 Column 6 Line 7099999



Company Name

Confidential when Completed

Short Term Bonds					
(9)	Exempt Obligations	AVR Default Component Column 1 Line 18	X	0.0000	=
(10.1)	NAIC Designation Category 1.A	AVR Default Component Column 1 Line 19.1	X	0.00158	=
(10.2)	NAIC Designation Category 1.B	AVR Default Component Column 1 Line 19.2	X	0.00271	=
(10.3)	NAIC Designation Category 1.C	AVR Default Component Column 1 Line 19.3	X	0.00419	=
(10.4)	NAIC Designation Category 1.D	AVR Default Component Column 1 Line 19.4	X	0.00523	=
(10.5)	NAIC Designation Category 1.E	AVR Default Component Column 1 Line 19.5	X	0.00657	=
(10.6)	NAIC Designation Category 1.F	AVR Default Component Column 1 Line 19.6	X	0.00816	=
(10.7)	NAIC Designation Category 1.G	AVR Default Component Column 1 Line 19.7	X	0.01016	=
(10.8)	Subtotal NAIC 1	Sum of Lines (10.1) through (10.7)			
(11.1)	NAIC Designation Category 2.A	AVR Default Component Column 1 Line 20.1	X	0.01261	=
(11.2)	NAIC Designation Category 2.B	AVR Default Component Column 1 Line 20.2	X	0.01523	=
(11.3)	NAIC Designation Category 2.C	AVR Default Component Column 1 Line 20.3	X	0.02168	=
(11.4)	Subtotal NAIC 2	Sum of Lines (11.1) through (11.3)			
(12.1)	NAIC Designation Category 3.A	AVR Default Component Column 1 Line 21.1	X	0.03151	=
(12.2)	NAIC Designation Category 3.B	AVR Default Component Column 1 Line 21.2	X	0.04537	=
(12.3)	NAIC Designation Category 3.C	AVR Default Component Column 1 Line 21.3	X	0.06017	=
(12.4)	Subtotal NAIC 3	Sum of Lines (12.1) through (12.3)			
(13.1)	NAIC Designation Category 4.A	AVR Default Component Column 1 Line 22.1	X	0.07386	=
(13.2)	NAIC Designation Category 4.B	AVR Default Component Column 1 Line 22.2	X	0.09535	=
(13.3)	NAIC Designation Category 4.C	AVR Default Component Column 1 Line 22.3	X	0.12428	=
(13.4)	Subtotal NAIC 4	Sum of Lines (13.1) through (13.3)			
(14.1)	NAIC Designation Category 5.A	AVR Default Component Column 1 Line 23.1	X	0.16942	=
(14.2)	NAIC Designation Category 5.B	AVR Default Component Column 1 Line 23.2	X	0.23798	=
(14.3)	NAIC Designation Category 5.C	AVR Default Component Column 1 Line 23.3	X	0.30000	=
(14.4)	Subtotal NAIC 5	Sum of Lines (14.1) through (14.3)			
(15)	NAIC 6	AVR Default Component Column 1 Line 24	X	0.30000	=
(16)	Total Short-Term Bonds	Sum of Lines (9) + (10.8) + (11.4) + (12.4) + (13.4) + (14.4) + (15)			
		(Column 1) should equal Schedule DA Part 1 Column 7 Line 8399999 +			
		Schedule DL Part 1 Column 6 Line 8999999 + LR012 Miscellaneous Assets Column (1) Line (2.2)			
(17)	Total Long-Term and Short-Term Bonds	Line (8) + (16)			
		(pre-MODCO/Funds Withheld)			
(18)	Credit for Hedging	LR014 Hedged Asset Bond Schedule Column 13 Line 0399999			
(19)	Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	LR045 Modco or Funds Withheld Reinsurance Ceded - Bonds C-1o Column (4) Line (9999999)			
(20)	Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	LR046 Modco or Funds Withheld Reinsurance Assumed - Bonds C-1o Column (4) Line (9999999)			
(21)	Total Long-Term and Short-Term Bonds	Lines (17) - (18) - (19) + (20)			
		(including MODCO/Funds Withheld and Credit for Hedging adjustments.)			
(22)	Non-exempt U.S. Government Agency Bonds	Schedule D Part 1 and Schedule DA Part 1, in part†	X	0.00158	=
(23)	Bonds Subject to Size Factor	Line (21) - Line (1) - Line (9) - Line (22)			
(24)	Number of Issuers	Company Records			
(25)	Size Factor for Bonds				
(26)	Bonds Subject to Size Factor after the Size Factor is Applied	Line (23) x Line (25)			
(27)	Total Bonds	Line (22) + Line (26)			

† Only investments in U.S. Government agency bonds previously reported in Lines (2.8) and (10.8), net of those included on Line (19), plus the portion of Line (20) attributable to ceding companies' Lines (2.8) and (10.8) should be included on Line (22). No other bonds should be included on this line. Exempt U.S. Government bonds shown on Lines (1) and (9) should not be included on Line (22). Refer to the bond section of the risk-based capital instructions for more clarification.

Denotes items that must be manually entered on the filing software.

ASSET CONCENTRATION FACTOR

(1)	(2)	(3)	(4)	(5)	(6)
Asset Type	Book / Adjusted Carrying Value	Factor	Additional RBC	Adjustment/ Subsidiary RBC	RBC Requirement
Issuer Name: _____					
(1.1) Bond NAIC Designation Category 2.A		X 0.01261	=		
(1.2) Bond NAIC Designation Category 2.B		X 0.01523	=		
(1.3) Bond NAIC Designation Category 2.C		X 0.02168	=		
(2.1) Bond NAIC Designation Category 3.A		X 0.03151	=		
(2.2) Bond NAIC Designation Category 3.B		X 0.04537	=		
(2.3) Bond NAIC Designation Category 3.C		X 0.06017	=		
(3.1) Bond NAIC Designation Category 4.A		X 0.07386	=		
(3.2) Bond NAIC Designation Category 4.B		X 0.09535	=		
(3.3) Bond NAIC Designation Category 4.C		X 0.12428	=		
(4.1) Bond NAIC Designation Category 5.A		X 0.16942	=		
(4.2) Bond NAIC Designation Category 5.B		X 0.21202	=		
(4.3) Bond NAIC Designation Category 5.C		X 0.15000	=		
(5) Bond NAIC 6		X 0.15000	=		
(6.1) Bond NAIC Designation Category 1.A †		X 0.00158	=		
(6.2) Bond NAIC Designation Category 1.B †		X 0.00271	=		
(6.3) Bond NAIC Designation Category 1.C †		X 0.00419	=		
(6.4) Bond NAIC Designation Category 1.D †		X 0.00523	=		
(6.5) Bond NAIC Designation Category 1.E †		X 0.00657	=		
(6.6) Bond NAIC Designation Category 1.F †		X 0.00816	=		
(6.7) Bond NAIC Designation Category 1.G †		X 0.01016	=		
(7) Unaffiliated Preferred Stock NAIC 2		X 0.01260	=		
(8) Unaffiliated Preferred Stock NAIC 3		X 0.04460	=		
(9) Unaffiliated Preferred Stock NAIC 4		X 0.09700	=		
(10) Unaffiliated Preferred Stock NAIC 5		X 0.22310	=		
(11) Unaffiliated Preferred Stock NAIC 6		X 0.15000	=		
(12) Unaffiliated Preferred Stock NAIC 1 †		X 0.00390	=		
(13) Collateral Loans		X 0.06800	=		
(14) Receivable for Securities		X 0.01400	=		
(15) Write-ins for Invested Assets		X 0.06800	=		
(16) Premium Notes		X 0.06800	=		
(17) Real Estate - Foreclosed					
(18) Real Estate - Foreclosed Encumbrances		X ‡	=		
(19) Real Estate - Investments					
(20) Real Estate - Investment Encumbrances		X ‡	=		
(21) Real Estate - Schedule BA					
(22) Real Estate - Schedule BA Encumbrances		X ‡	=		
(23) Farm Mortgages - Category CM2		X 0.01750	=		
(24) Farm Mortgages - Category CM3		X 0.03000	=		
(25) Farm Mortgages - Category CM4		X 0.05000	=		
(26) Farm Mortgages - Category CM5		X 0.07500	=		
(27) Commercial Mortgages - Category CM2		X 0.01750	=		
(28) Commercial Mortgages - Category CM3		X 0.03000	=		
(29) Commercial Mortgages - Category CM4		X 0.05000	=		
(30) Commercial Mortgages - Category CM5		X 0.07500	=		

† After the ten largest issuer exposures are chosen, any NAIC 1 bonds or preferred stocks from any of these issuers should be included.

‡ Refer to the instructions for the Asset Concentration Factor for details of this calculation.

Denotes items that must be manually entered on the filing software.

Company Name

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ASSET CONCENTRATION FACTOR (CONTINUED)

(1)	(2)	(3)	(4)	(5)	(6)
Asset Type	Book / Adjusted Carrying Value	Factor	Additional RBC	Adjustment/ Subsidiary RBC	RBC Requirement
(31) Farm Mortgages - 90 Days Overdue					
(32) Farm Mortgages - 90 Days Overdue - Cumulative Writedowns		X ‡ =			
(33) Residential Mortgages - 90 Days Overdue					
(34) Residential Mortgages - 90 Days Overdue - Cumulative Writedowns		X ‡ =			
(35) Commercial Mortgages - 90 Days Overdue					
(36) Commercial Mortgages - 90 Days Overdue - Cumulative Writedowns		X ‡ =			
(37) Farm Mortgages in Foreclosure					
(38) Farm Mortgages in Foreclosure - Cumulative Writedowns		X ‡ =			
(39) Residential Mortgages in Foreclosure					
(40) Residential Mortgages in Foreclosure - Cumulative Writedowns		X ‡ =			
(41) Commercial Mortgages in Foreclosure					
(42) Commercial Mortgages in Foreclosure - Cumulative Writedowns		X ‡ =			
(43) Unaffiliated Mortgages with Covenants		X ‡ =			
(44) Unaffiliated Mortgages - Defeased with Government Securities		X 0.00900 =			
(45) Unaffiliated Mortgages - Primarily Senior		X 0.01750 =			
(46) Unaffiliated Mortgages - All Other		X 0.03000 =			
(47) Affiliated Mortgages - Category CM2		X 0.01750 =			
(48) Affiliated Mortgages - Category CM3		X 0.03000 =			
(49) Affiliated Mortgages - Category CM4		X 0.05000 =			
(50) Affiliated Mortgages - Category CM5		X 0.07500 =			
(51) Schedule BA Mortgages 90 Days Overdue					
(52) Schedule BA Mortgages 90 Days Overdue - Cumulative Writedowns		X ‡ =			
(53) Schedule BA Mortgages in Process of Foreclosure					
(54) Schedule BA Mortgages Foreclosed - Cumulative Writedowns		X ‡ =			
(55) Federal Guaranteed Low Income Housing Tax Credits		X 0.00140 =			
(56) Federal Non-Guaranteed Low Income Housing Tax Credits		X 0.02600 =			
(57) State Guaranteed Low Income Housing Tax Credits		X 0.00140 =			
(58) State Non-Guaranteed Low Income Housing Tax Credits		X 0.02600 =			
(59) All Other Low Income Housing Tax Credits		X 0.15000 =			
(60) NAIC 02 Working Capital Finance Notes		X 0.01630 =			
(61) Other Schedule BA Assets		X 0.15000 =			
(62) Total of Issuer = Sum of Lines (1) through (61)					

NOTE: Ten issuer sections and a grand total page will be available on the filing software. The grand total page is calculated as the sum of issuers 1-10 by asset type.

‡ Refer to the instructions for the Asset Concentration Factor for details of this calculation.

Denotes items that must be manually entered on the filing software.

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HEDGED ASSET BOND SCHEDULE

As of:

Type of Hedged Asset	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Hedging Instruments				Hedged Asset - Bonds								RBC Credit	
	Description	Notional Amount	Relationship Type of the Hedging Instrument and Hedged Asset	Maturity Date	Description	CUSIP	Book / Adjusted Carrying Value	Overlap with Insurer's Bond Portfolio	Maturity Date	NAIC Designation Category	RBC Factor	Gross RBC Charge	RBC Credit for Hedging Instruments	Net RBC Charge
Bonds	†	†		†	†	†	†	‡	†	†	§	*	£	**
(0100001)														
(0100002)														
(0100003)														
(0100004)														
(0100005)														
(0100006)														
(0100007)														
(0100008)														
(0100009)														
(0100010)														
(0100011)														
(0100012)														
(0100013)														
(0100014)														
(0100015)														
(0100016)														
(0100017)														
(0100018)														
(0100019)														
(0100020)														
(0100021)														
(0100022)														
(0100023)														
(0100024)														
(0100025)														
(0100026)														
(0100027)														
(0100028)														
(0100029)														
(0100030)														
(0199999)	Subtotal - NAIC 1 Through 5 Bonds		XXXX	XXXX	Subtotal	XXXX			XXXX	XXXX	XXXX			
(0299999)	Subtotal - NAIC 6 Bonds		XXXX	XXXX	Subtotal	XXXX			XXXX	XXXX	XXXX			
(0399999)	Total		XXXX	XXXX	Total	XXXX			XXXX	XXXX	XXXX			

Note: For the intermediate category of hedging, we recommend that the risk mitigation and resulting RBC credit be determined as if each specific security common to both the index/basket hedge and the portfolio is a basic hedge with the entire basic hedge methodology applied to each matching name. This includes the application of the maturity mismatch formula and the maximum RBC credit of 94% of the C-1 asset charge for fixed income hedges.

† Columns are derived from Investment schedules.

‡ The portion of Column (2) Notional Amount of the Hedging Instrument that hedges Column (7) Book / Adjusted Carrying Value. This amount cannot exceed Column (7) Book / Adjusted Carrying Value.

§ Factor based on Column (10) NAIC Designation and NAIC C-1 RBC factors table.

\* Column (7) Book Adjusted Carrying Value multiplied by Column (11) RBC Factor.

£ Column (13) is calculated according to the risk-based capital instructions.

\*\* Column (12) Gross RBC Charge minus Column (13) RBC Credit for Hedging Instruments.

Denotes manual entry items that do not come directly from the annual statement.

**OFF-BALANCE SHEET COLLATERAL**

(Including any Schedule DL, Part 1 Assets not Included in the Asset Valuation Reserve)

		(1) Book / Adjusted Carrying Value	2.00000 Factor	(3) RBC Requirement
		<u>Annual Statement Source</u>		
<u>Fixed Income - Bonds</u>				
(1)	Exempt Obligations	Company Records	X 0.00000	=
(2.1)	NAIC Designation Category 1.A	Company Records	X 0.00158	=
(2.2)	NAIC Designation Category 1.B	Company Records	X 0.00271	=
(2.3)	NAIC Designation Category 1.C	Company Records	X 0.00419	=
(2.4)	NAIC Designation Category 1.D	Company Records	X 0.00523	=
(2.5)	NAIC Designation Category 1.E	Company Records	X 0.00657	=
(2.6)	NAIC Designation Category 1.F	Company Records	X 0.00816	=
(2.7)	NAIC Designation Category 1.G	Company Records	X 0.01016	=
(2.8)	Subtotal NAIC 1	Sum of Lines (2.1) through (2.7)		
(3.1)	NAIC Designation Category 2.A	Company Records	X 0.01261	=
(3.2)	NAIC Designation Category 2.B	Company Records	X 0.01523	=
(3.3)	NAIC Designation Category 2.C	Company Records	X 0.02168	=
(3.4)	Subtotal NAIC 2	Sum of Lines (3.1) through (3.3)		
(4.1)	NAIC Designation Category 3.A	Company Records	X 0.03151	=
(4.2)	NAIC Designation Category 3.B	Company Records	X 0.04537	=
(4.3)	NAIC Designation Category 3.C	Company Records	X 0.06017	=
(4.4)	Subtotal NAIC 3	Sum of Lines (4.1) through (4.3)		
(5.1)	NAIC Designation Category 4.A	Company Records	X 0.07386	=
(5.2)	NAIC Designation Category 4.B	Company Records	X 0.09535	=
(5.3)	NAIC Designation Category 4.C	Company Records	X 0.12428	=
(5.4)	Subtotal NAIC 4	Sum of Lines (5.1) through (5.3)		
(6.1)	NAIC Designation Category 5.A	Company Records	X 0.16942	=
(6.2)	NAIC Designation Category 5.B	Company Records	X 0.23798	=
(6.3)	NAIC Designation Category 5.C	Company Records	X 0.30000	=
(6.4)	Subtotal NAIC 5	Sum of Lines (6.1) through (6.3)		
(7)	NAIC 6	Company Records	X 0.30000	=
(8)	Total Bonds	Sum of Lines (1) + (2.8) + (3.4) + (4.4) + (5.4) + (6.4) + (7)		
<u>Fixed Income - Preferred Stock</u>				
(9)	Asset NAIC 1	Company Records	X 0.00390	=
(10)	Asset NAIC 2	Company Records	X 0.01260	=
(11)	Asset NAIC 3	Company Records	X 0.04460	=
(12)	Asset NAIC 4	Company Records	X 0.09700	=
(13)	Asset NAIC 5	Company Records	X 0.22310	=
(14)	Asset NAIC 6	Company Records	X 0.30000	=
(15)	Total Preferred Stock	Sum of Lines (9) through (14)		
(16)	Common Stock	Company Records	X 0.45000 †	=
(17)	Schedule BA - Other Invested Assets	Company Records	X 0.30000	=
(18)	Other Invested Assets	Company Records	X 0.30000	=
(19)	Total Off-Balance Sheet Collateral	Lines (8) + (15) + (16) + (17) + (18)		

† The factor for common stock can vary depending on the type of stock. The factor would be subject to a minimum of 22.5 percent and a maximum of 45 percent.

Denotes items that must be manually entered on the filing software.

#REF!

CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL

	<u>Source</u>	(1) <u>RBC Amount</u>	<u>Tax Factor</u>	(2) <u>RBC Tax Effect</u>
<u>ASSET RISKS</u>				
<u>Bonds</u>				
(001)	Long-term Bonds – NAIC 1 LR002 Bonds Column (2) Line (2.8) + LR018 Off-Balance Sheet Collateral Column (3) Line (2.8)	_____	X 0.1680	= _____
(002)	Long-term Bonds – NAIC 2 LR002 Bonds Column (2) Line (3.4) + LR018 Off-Balance Sheet Collateral Column (3) Line (3.4)	_____	X 0.1680	= _____
(003)	Long-term Bonds – NAIC 3 LR002 Bonds Column (2) Line (4.4) + LR018 Off-Balance Sheet Collateral Column (3) Line (4.4)	_____	X 0.1680	= _____
(004)	Long-term Bonds – NAIC 4 LR002 Bonds Column (2) Line (5.4) + LR018 Off-Balance Sheet Collateral Column (3) Line (5.4)	_____	X 0.1680	= _____
(005)	Long-term Bonds – NAIC 5 LR002 Bonds Column (2) Line (6.4) + LR018 Off-Balance Sheet Collateral Column (3) Line (6.4)	_____	X 0.1680	= _____
(006)	Long-term Bonds – NAIC 6 LR002 Bonds Column (2) Line (7) + LR018 Off-Balance Sheet Collateral Column (3) Line (7)	_____	X 0.2100	= _____
(007)	Short-term Bonds – NAIC 1 LR002 Bonds Column (2) Line (10.8)	_____	X 0.1680	= _____
(008)	Short-term Bonds – NAIC 2 LR002 Bonds Column (2) Line (11.4)	_____	X 0.1680	= _____
(009)	Short-term Bonds – NAIC 3 LR002 Bonds Column (2) Line (12.4)	_____	X 0.1680	= _____
(010)	Short-term Bonds – NAIC 4 LR002 Bonds Column (2) Line (13.4)	_____	X 0.1680	= _____
(011)	Short-term Bonds – NAIC 5 LR002 Bonds Column (2) Line (14.4)	_____	X 0.1680	= _____
(012)	Short-term Bonds – NAIC 6 LR002 Bonds Column (2) Line (15)	_____	X 0.2100	= _____
(013)	Credit for Hedging - NAIC 1 Through 5 Bonds LR014 Hedged Asset Bond Schedule Column (13) Line (0199999)	_____	X 0.1680	= _____ †
(014)	Credit for Hedging - NAIC 6 Bonds LR014 Hedged Asset Bond Schedule Column (13) Line (0299999)	_____	X 0.2100	= _____ †
(015)	Bond Reduction - Reinsurance LR002 Bonds Column (2) Line (19)	_____	X 0.2100	= _____ †
(016)	Bond Increase - Reinsurance LR002 Bonds Column (2) Line (20)	_____	X 0.2100	= _____
(017)	Non-Exempt NAIC 1 U.S. Government Agency LR002 Bonds Column (2) Line (22)	_____	X 0.1680	= _____
(018)	Bonds Size Factor LR002 Bonds Column (2) Line (26) - LR002 Bonds Column (2) Line (21)	_____	X 0.1680	= _____
<u>Mortgages</u>				
<u>In Good Standing</u>				
(019)	Residential Mortgages - Insured LR004 Mortgages Column (6) Line (1)	_____	X 0.1575	= _____
(020)	Residential Mortgages - Other LR004 Mortgages Column (6) Line (2)	_____	X 0.1575	= _____
(021)	Commercial Mortgages - Insured LR004 Mortgages Column (6) Line (3)	_____	X 0.1575	= _____
(022)	Total Commercial Mortgages - All Other LR004 Mortgages Column (6) Line (9)	_____	X 0.1575	= _____
(023)	Total Farm Mortgages LR004 Mortgages Column (6) Line (15)	_____	X 0.1575	= _____
<u>90 Days Overdue</u>				
(024)	Farm Mortgages LR004 Mortgages Column (6) Line (16)	_____	X 0.1575	= _____
(025)	Residential Mortgages - Insured LR004 Mortgages Column (6) Line (17)	_____	X 0.1575	= _____
(026)	Residential Mortgages - Other LR004 Mortgages Column (6) Line (18)	_____	X 0.1575	= _____
(027)	Commercial Mortgages - Insured LR004 Mortgages Column (6) Line (19)	_____	X 0.1575	= _____
(028)	Commercial Mortgages - Other LR004 Mortgages Column (6) Line (20)	_____	X 0.1575	= _____
<u>In Process of Foreclosure</u>				
(029)	Farm Mortgages LR004 Mortgages Column (6) Line (21)	_____	X 0.1575	= _____

† Denotes lines that are deducted from the total rather than added.

Denotes items that must be manually entered on the filing software.

CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL (CONTINUED)

	<u>Source</u>	(1) <u>RBC Amount</u>	<u>Tax Factor</u>	(2) <u>RBC Tax Effect</u>
(030)	Residential Mortgages - Insured LR004 Mortgages Column (6) Line (22)	_____	X 0.1575	= _____
(031)	Residential Mortgages - Other LR004 Mortgages Column (6) Line (23)	_____	X 0.1575	= _____
(032)	Commercial Mortgages - Insured LR004 Mortgages Column (6) Line (24)	_____	X 0.1575	= _____
(033)	Commercial Mortgages - Other LR004 Mortgages Column (6) Line (25)	_____	X 0.1575	= _____
(034)	Due & Unpaid Taxes Mortgages LR004 Mortgages Column (6) Line (26)	_____	X 0.1575	= _____
(035)	Due & Unpaid Taxes - Foreclosures LR004 Mortgages Column (6) Line (27)	_____	X 0.1575	= _____
(036)	Mortgage Reduction - Reinsurance LR004 Mortgages Column (6) Line (29)	_____	X 0.2100	= _____ †
(037)	Mortgage Increase - Reinsurance LR004 Mortgages Column (6) Line (30)	_____	X 0.2100	= _____
<u>Preferred Stock</u>				
(038)	Unaffiliated Preferred Stock NAIC 1 LR005 Unaffiliated Preferred and Common Stock Column (5) Line (1) + LR018 Off-Balance Sheet Collateral Column (3) Line (9)	_____	X 0.1575	= _____
(039)	Unaffiliated Preferred Stock NAIC 2 LR005 Unaffiliated Preferred and Common Stock Column (5) Line (2) + LR018 Off-Balance Sheet Collateral Column (3) Line (10)	_____	X 0.1575	= _____
(040)	Unaffiliated Preferred Stock NAIC 3 LR005 Unaffiliated Preferred and Common Stock Column (5) Line (3)	_____	X 0.1575	= _____

(041)	Unaffiliated Preferred Stock NAIC 4	+ LR018 Off-Balance Sheet Collateral Column (3) Line (11) LR005 Unaffiliated Preferred and Common Stock Column (5) Line (4)	_____	X	0.1575	=	_____
(042)	Unaffiliated Preferred Stock NAIC 5	+ LR018 Off-Balance Sheet Collateral Column (3) Line (12) LR005 Unaffiliated Preferred and Common Stock Column (5) Line (5)	_____	X	0.1575	=	_____
(043)	Unaffiliated Preferred Stock NAIC 6	+ LR018 Off-Balance Sheet Collateral Column (3) Line (13) LR005 Unaffiliated Preferred and Common Stock Column (5) Line (6)	_____	X	0.2100	=	_____
(044)	Preferred Stock Reduction-Reinsurance	+ LR018 Off-Balance Sheet Collateral Column (3) Line (14) LR005 Unaffiliated Preferred and Common Stock Column (5) Line (8)	_____	X	0.2100	=	_____ †
(045)	Preferred Stock Increase-Reinsurance	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (9)	_____	X	0.2100	=	_____
	<u>Separate Accounts</u>						
(046)	Guaranteed Index	LR006 Separate Accounts Column (3) Line (1)	_____	X	0.1575	=	_____
(047)	Nonindex-Book Reserve	LR006 Separate Accounts Column (3) Line (2)	_____	X	0.1575	=	_____
(048)	Separate Accounts Nonindex-Market Reserve	LR006 Separate Accounts Column (3) Line (3)	_____	X	0.1575	=	_____
(049)	Separate Accounts Reduction-Reinsurance	LR006 Separate Accounts Column (3) Line (5)	_____	X	0.2100	=	_____ †
(050)	Separate Accounts Increase-Reinsurance	LR006 Separate Accounts Column (3) Line (6)	_____	X	0.2100	=	_____
(051)	Synthetic GICs	LR006 Separate Accounts Column (3) Line (8)	_____	X	0.1575	=	_____
(052)	Separate Account Surplus	LR006 Separate Accounts Column (3) Line (13)	_____	X	0.1575	=	_____
	<u>Real Estate</u>						
(053)	Company Occupied Real Estate	LR007 Real Estate Column (3) Line (3)	_____	X	0.2100	=	_____
(054)	Foreclosed Real Estate	LR007 Real Estate Column (3) Line (6)	_____	X	0.2100	=	_____
(055)	Investment Real Estate	LR007 Real Estate Column (3) Line (9)	_____	X	0.2100	=	_____
(056)	Real Estate Reduction - Reinsurance	LR007 Real Estate Column (3) Line (11)	_____	X	0.2100	=	_____ †
(057)	Real Estate Increase - Reinsurance	LR007 Real Estate Column (3) Line (12)	_____	X	0.2100	=	_____
	<u>Schedule BA</u>						
(058)	Sch BA Real Estate Excluding Low Income Housing Tax Credits	LR007 Real Estate Column (3) Line (16)	_____	X	0.2100	=	_____
(059)	Guaranteed Low Income Housing Tax Credits	LR007 Real Estate Column (3) Line (17) + Line (19)	_____	X	0.0000	=	_____
(060)	Non-Guaranteed and All Other Low Income Housing Tax Credits	LR007 Real Estate Column (3) Line (18) + Line (20) + Line (21)	_____	X	0.0000	=	_____
(061)	Sch BA Real Estate Reduction - Reinsurance	LR007 Real Estate Column (3) Line (23)	_____	X	0.2100	=	_____ †
(062)	Sch BA Real Estate Increase - Reinsurance	LR007 Real Estate Column (3) Line (24)	_____	X	0.2100	=	_____

† Denotes lines that are deducted from the total rather than added.

Denotes items that must be manually entered on the filing software.

**CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL (CONTINUED)**

				(1)		(2)	
		<u>Source</u>		<u>RBC Amount</u>	<u>Tax Factor</u>	<u>RBC Tax Effect</u>	
(063)	Sch BA Bond NAIC 1	LR008 Other Long-Term Assets Column (5) Line (2)	_____	X	0.1575	=	_____
(064)	Sch BA Bond NAIC 2	LR008 Other Long-Term Assets Column (5) Line (3)	_____	X	0.1575	=	_____
(065)	Sch BA Bond NAIC 3	LR008 Other Long-Term Assets Column (5) Line (4)	_____	X	0.1575	=	_____
(066)	Sch BA Bond NAIC 4	LR008 Other Long-Term Assets Column (5) Line (5)	_____	X	0.1575	=	_____
(067)	Sch BA Bond NAIC 5	LR008 Other Long-Term Assets Column (5) Line (6)	_____	X	0.1575	=	_____
(068)	Sch BA Bond NAIC 6	LR008 Other Long-Term Assets Column (5) Line (7)	_____	X	0.2100	=	_____
(069)	BA Bond Reduction - Reinsurance	LR008 Other Long-Term Assets Column (5) Line (9)	_____	X	0.2100	=	_____ †
(070)	BA Bond Increase - Reinsurance	LR008 Other Long-Term Assets Column (5) Line (10)	_____	X	0.2100	=	_____
(071)	BA Preferred Stock NAIC 1	LR008 Other Long-Term Assets Column (5) Line (12.3)	_____	X	0.1575	=	_____
(072)	BA Preferred Stock NAIC 2	LR008 Other Long-Term Assets Column (5) Line (13)	_____	X	0.1575	=	_____
(073)	BA Preferred Stock NAIC 3	LR008 Other Long-Term Assets Column (5) Line (14)	_____	X	0.1575	=	_____
(074)	BA Preferred Stock NAIC 4	LR008 Other Long-Term Assets Column (5) Line (15)	_____	X	0.1575	=	_____
(075)	BA Preferred Stock NAIC 5	LR008 Other Long-Term Assets Column (5) Line (16)	_____	X	0.1575	=	_____
(076)	BA Preferred Stock NAIC 6	LR008 Other Long-Term Assets Column (5) Line (17)	_____	X	0.2100	=	_____
(077)	BA Preferred Stock Reduction-Reinsurance	LR008 Other Long-Term Assets Column (5) Line (19)	_____	X	0.2100	=	_____ †
(078)	BA Preferred Stock Increase - Reinsurance	LR008 Other Long-Term Assets Column (5) Line (20)	_____	X	0.2100	=	_____
(079)	Rated Surplus Notes	LR008 Other Long-Term Assets Column (5) Line (31)	_____	X	0.1575	=	_____
(080)	Rated Capital Notes	LR008 Other Long-Term Assets Column (5) Line (41)	_____	X	0.1575	=	_____
(081)	BA Common Stock Affiliated	LR008 Other Long-Term Assets Column (5) Line (48.3)	_____	X	0.2100	=	_____
(082)	BA Collateral Loans	LR008 Other Long-Term Assets Column (5) Line (50)	_____	X	0.1575	=	_____
(083)	Other BA Assets	LR008 Other Long-Term Assets Column (5) Line (52.3) + LR018 Off-Balance Sheet Collateral Column (3) Line (17) + Line (18)	_____	X	0.2100	=	_____
(084)	Other BA Assets Reduction-Reinsurance	LR008 Other Long-Term Assets Column (5) Line (54)	_____	X	0.2100	=	_____ †
(085)	Other BA Assets Increase - Reinsurance	LR008 Other Long-Term Assets Column (5) Line (55)	_____	X	0.2100	=	_____
(086)	BA Mortgages - In Good Standing	LR009 Schedule BA Mortgages Column (6) Line (11)	_____	X	0.1575	=	_____
(087)	BA Mortgages - 90 Days Overdue	LR009 Schedule BA Mortgages Column (6) Line (15)	_____	X	0.1575	=	_____
(088)	BA Mortgages - In Process of Foreclosure	LR009 Schedule BA Mortgages Column (6) Line (19)	_____	X	0.1575	=	_____
(089)	Reduction - Reinsurance	LR009 Schedule BA Mortgages Column (6) Line (21)	_____	X	0.2100	=	_____ †
(090)	Increase - Reinsurance	LR009 Schedule BA Mortgages Column (6) Line (22)	_____	X	0.2100	=	_____
	<u>Miscellaneous</u>						
(091)	Asset Concentration Factor	LR010 Asset Concentration Factor Column (6) Line (62) Grand Total Page	_____	X	0.1575	=	_____
(092)	Miscellaneous Assets	LR012 Miscellaneous Assets Column (2) Line (7)	_____	X	0.1575	=	_____
(093)	Derivatives - Collateral and Exchange Traded	LR012 Miscellaneous Assets Column (2) Lines (8) + (9) + (10)	_____	X	0.1575	=	_____

(094)	Derivatives NAIC 1	LR012 Miscellaneous Assets Column (2) Line (11)	_____	X	0.1575	=	_____
(095)	Derivatives NAIC 2	LR012 Miscellaneous Assets Column (2) Line (12)	_____	X	0.1575	=	_____
(096)	Derivatives NAIC 3	LR012 Miscellaneous Assets Column (2) Line (13)	_____	X	0.1575	=	_____
(097)	Derivatives NAIC 4	LR012 Miscellaneous Assets Column (2) Line (14)	_____	X	0.1575	=	_____
(098)	Derivatives NAIC 5	LR012 Miscellaneous Assets Column (2) Line (15)	_____	X	0.1575	=	_____
(099)	Derivatives NAIC 6	LR012 Miscellaneous Assets Column (2) Line (16)	_____	X	0.2100	=	_____
(100)	Miscellaneous Assets Reduction-Reinsurance	LR012 Miscellaneous Assets Column (2) Line (19)	_____	X	0.2100	=	_____ †
(101)	Miscellaneous Assets Increase-Reinsurance	LR012 Miscellaneous Assets Column (2) Line (20)	_____	X	0.2100	=	_____

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Denotes items that must be manually entered on the filing software.

**CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL (CONTINUED)**

			(1)		(2)		
		<u>Source</u>	<u>RBC Amount</u>	<u>Tax Factor</u>	<u>RBC Tax Effect</u>		
(102)	Replications	LR013 Replication (Synthetic Asset) Transactions and Mandatory Convertible Securities Column (7) Line (9999999)	_____	X	0.1575	=	_____
(103)	Reinsurance	LR016 Reinsurance Column (4) Line (17)	_____	X	0.2100	=	_____
(104)	Investment Affiliates	LR042 Summary for Affiliated Investments Column (4) Line (6)	_____	X	0.2100	=	_____
(105)	Investment in Parent	LR042 Summary for Affiliated Investments Column (4) Line (10)	_____	X	0.2100	=	_____
(106)	Other Affiliate: Property and Casualty Insurers not Subject to Risk-Based Capital	LR042 Summary for Affiliated Investments Column (4) Line (11)	_____	X	0.2100	=	_____
(107)	Other Affiliate: Life Insurers not Subject to Risk-Based Capital	LR042 Summary for Affiliated Investments Column (4) Line (12)	_____	X	0.2100	=	_____
(108)	Publicly Traded Insurance Affiliates	LR042 Summary for Affiliated Investments Column (4) Line (14)	_____	X	0.2100	=	_____
(109)	Subtotal for C-1o Assets	Sum of Lines (001) through (108), Recognizing the Deduction of Lines (013), (014), (015), (036), (044), (049), (056), (061), (069), (077), (084), (089) and (100)	=====			=	=====
	<u>C-0 Affiliated Common Stock</u>						
(110)	Off-Balance Sheet and Other Items	LR017 Off-Balance Sheet and Other Items Column (5) Line (27)	_____	X	0.1575	=	_____
(111)	Off-Balance Sheet Items Reduction - Reinsurance	LR017 Off-Balance Sheet and Other Items Column (5) Line (28)	_____	X	0.2100	=	_____ †
(112)	Off-Balance Sheet Items Increase - Reinsurance	LR017 Off-Balance Sheet and Other Items Column (5) Line (29)	_____	X	0.2100	=	_____
(113)	Affiliated US Property - Casualty Insurers Directly Owned	LR042 Summary for Affiliated Investments Column (4) Line (1)	_____	X	0.2100	=	_____
(114)	Affiliated US Life Insurers Directly Owned	LR042 Summary for Affiliated Investments Column (4) Line (2)	_____	X	0.2100	=	_____
(115)	Affiliated US Health Insurers Directly and Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (3)	_____	X	0.2100	=	_____
(116)	Affiliated US Property - Casualty Insurers Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (4)	_____	X	0.2100	=	_____
(117)	Affiliated US Life Insurers Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (5)	_____	X	0.2100	=	_____
(118)	Affiliated Alien Life Insurers - Canadian	LR042 Summary for Affiliated Investments Column (4) Line (8)	_____	X	0.2100	=	_____
(119)	Affiliated Alien Life Insurers - All Others	LR042 Summary for Affiliated Investments Column (4) Line (9)	_____	X	0.0000	=	_____
(120)	Subtotal for C-0 Affiliated Common Stock	Lines (110)-(111)+(112)+(113)+(114)+(115)+(116)+(117)+(118)+(119)	=====			=	=====
	<u>Common Stock</u>						
(121)	Unaffiliated Common Stock	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (7) + LR018 Off-Balance Sheet Collateral Column (3) Line (16)	_____	X	0.2100	=	_____
(122)	Credit for Hedging - Common Stock	LR015 Hedged Asset Common Stock Schedule Column (10) Line (0299999)	_____	X	0.2100	=	_____ †
(123)	Stock Reduction - Reinsurance	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (19)	_____	X	0.2100	=	_____ †
(124)	Stock Increase - Reinsurance	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (20)	_____	X	0.2100	=	_____
(125)	BA Common Stock Unaffiliated	LR008 Other Long-Term Assets Column (5) Line (47)	_____	X	0.2100	=	_____
(126)	BA Common Stock Affiliated - C-1cs	LR008 Other Long-Term Assets Column (5) Line (49.2)	_____	X	0.2100	=	_____
(127)	Common Stock Concentration Factor	LR011 Common Stock Concentration Factor Column (6) Line (6)	_____	X	0.2100	=	_____
(128)	NAIC 01 Working Capital Finance Notes	LR008 Other Long-Term Assets Column (5) Line (51.1)	_____	X	0.1575	=	_____
(129)	NAIC 02 Working Capital Finance Notes	LR008 Other Long-Term Assets Column (5) Line (51.2)	_____	X	0.1575	=	_____
(130)	Affiliated Preferred Stock and Common Stock - Holding Company in Excess of Indirect Subs	LR042 Summary for Affiliated Investments Column (4) Line (7)	_____	X	0.2100	=	_____
(131)	Affiliated Preferred Stock and Common Stock - All Other	LR042 Summary for Affiliated Investments Column (4) Line (13)	_____	X	0.2100	=	_____
(132)	Total for C-1cs Assets	Lines (121)-(122)-(123)+(124)+(125)+(126)+(127)+(128)+(129)+(130)+(131)	=====			=	=====
	<u>Insurance Risk</u>						
(133)	Disability Income Premium	LR019 Health Premiums Column (2) Lines (21) through (27)	_____	X	0.2100	=	_____

† Denotes lines that are deducted from the total rather than added.

Denotes items that must be manually entered on the filing software.

**CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL (CONTINUED)**

	<u>Source</u>	(1)		(2)
		<u>RBC Amount</u>	<u>Tax Factor</u>	<u>RBC Tax Effect</u>



(134)	Long-Term Care	LR019 Health Premiums Column (2) Line (28) + LR023 Long-Term Care Column (4) Line (7)	_____	X	0.2100	=	_____
(135)	Life Insurance C-2 Risk	LR025 Life Insurance Column (2) Line (8)	_____	X	0.2100	=	_____
(136)	Group Insurance C-2 Risk	LR025 Life Insurance Column (2) Lines (20) and (21)	_____	X	0.2100	=	_____
(136b)	Longevity C-2 Risk	LR025-A Longevity Risk Column (2) Line (5)	_____	X	0.2100	=	_____
(137)	Disability and Long-Term Care Health Claim Reserves	LR024 Health Claim Reserves Column (4) Line (9) + Line (15)	_____	X	0.2100	=	_____
(138)	Premium Stabilization Credit	LR026 Premium Stabilization Reserves Column (2) Line (10)	_____	X	0.0000	=	_____
(139)	Total C-2 Risk	L(133) + L(134) + L(137) + L(138) + Greatest of [Guardrail Factor * (L(135)+L(136)), Guardrail Factor * L(136b), Square Root of [ (L(135) + L(136)) <sup>2</sup> + L(136b) <sup>2</sup> + 2 * (TBD Correlation Factor) * (L(135) + L(136)) * L(136b) ]]	=====			=	=====
(140)	Interest Rate Risk	LR027 Interest Rate Risk Column (3) Line (36)	_____	X	0.2100	=	_____
(141)	Health Credit Risk	LR028 Health Credit Risk Column (2) Line (7)	_____	X	0.0000	=	_____
(142)	Market Risk	LR027 Interest Rate Risk Column (3) Line (37)	_____	X	0.2100	=	_____
(143)	Business Risk	LR029 Business Risk Column (2) Line (40)	_____	X	0.2100	=	_____
(144)	Health Administrative Expenses	LR029 Business Risk Column (2) Line (57)	_____	X	0.0000	=	_____
(145)	Total Tax Effect	Lines (109) + (120) + (132) + (139) + (140) + (141) + (142) + (143) + (144)	=====			=	=====

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Denotes items that must be manually entered on the filing software.

## BONDS

### LR002

#### *Basis of Factors*

The bond factors are based on cash flow modeling using historically adjusted default rates for each bond category. For each of 2,000 trials, annual economic conditions were generated for the 10-year modeling period. Each bond of a 400-bond portfolio was annually tested for default (based on a “roll of the dice”) where the default probability varies by designation category and that year’s economic environment. When a default takes place, the actual loss considers the expected principal loss by category, the time until the sale actually occurs and the assumed tax consequences.

Actual surplus needs are reduced by incorporating anticipated annual contributions to the asset valuation reserve (AVR) as offsetting cash flow. Required surplus for a given trial is calculated as the amount of initial surplus funds needed so that the accumulation with interest of this initial amount and subsequent cash flows will not become negative at any point throughout the modeling period. The factors chosen for the proposed formula produce a level of surplus at least as much as needed in 92 percent of the trials by category and a 96 percent level for the entire bond portfolio.

The factor for NAIC 6 bonds recognizes that the book/adjusted carrying value of these bonds reflects a loss of value upon default by being marked to market.

#### *Specific Instructions for Application of the Formula*

##### Lines (1) through (7)

The book/adjusted carrying value of all bonds and related fixed-income investments should be reported in Column (1). The bonds are split into seven different risk classifications. For long-term bonds, these classifications are found on Lines 1 through 7 of the Asset Valuation Reserve Default Component, Page 30 of the annual statement.

##### Line (8)

The total should equal long-term bonds and other fixed-income instruments reported on Page 2, Column 3, Line 1 plus Schedule DL Part 1, Column 6, Line 7099999 ~~minus Schedule D, Part 1A, Section 1, Column 7, Line 7.7 of the annual statement.~~

##### Lines (9) through (15)

The book/adjusted carrying value of all bonds and related fixed-income investments should be reported in Column (1). The bonds are split into seven different risk classifications. For short-term bonds, these classifications are found on Lines 18 through 24 of the Asset Valuation Reserve Default Component, Page 30 of the annual statement.

##### Line (16)

The total should equal short-term bonds reported on Schedule DA, Part 1, Line 8399999 plus Schedule DL Part 1, Column 6, Line 8999999 plus LR012 Miscellaneous Assets Column (1) Line (2.2).

##### Line (22)

Class 1 bonds (highest quality) issued by a U.S. government agency that are not backed by the full faith and credit of the U.S. government should be reported on this line. The loan-backed securities of the Federal National Mortgage Association (FNMA) and the Federal Home Loan Mortgage Corporation (FHLMC) would be examples of the securities reported on this line. Line (22) should not be larger than the sum of Lines (2) and (10). Exempt obligations should not be included on this line.

##### Line (24)

Bonds should be aggregated by issuer (the first six digits of the CUSIP number can be used). Exempt U.S. government bonds and bonds reported on Line (22) are not counted in determining the size factor. The RBC for those bonds will not be included in the base to which the size factor is applied. If this field is left blank, the maximum size factor adjustment of ~~2.52.40~~ will be used.

Line (25)

The size factor reflects the higher risk of a bond portfolio that contains relatively fewer bonds. The overall factor decreases as the portfolio size increases. Portfolios with more than 1,300 issuers will receive a discount. The size factor is based on the weighted number of issuers. (The calculation shown below will not appear on the RBC filing software but will be calculated automatically.)

		<u>(a)</u>			<u>(b)</u>	
	<u>Source</u>	<u>Number of Issuers</u>			<u>Weighted Issuers</u>	
<u>Line (25)</u>						
<u>First 50</u>	<u>Company Records</u>		X 2.40	=		
<u>Next 50</u>	<u>Company Records</u>		X 1.53	=		
<u>Next 100</u>	<u>Company Records</u>		X 0.85	=		
<u>Next 300</u>	<u>Company Records</u>		XX <del>0.85</del>	=		
<u>Over 500</u>	<u>Company Records</u>		X 0.82	=		
<u>Total Number of Issuers from Line (23)</u>						
<u>Total Weighted Issuers</u>						
<u>Size Factor = Total Weighted Issuers divided by Total Number of Issuers</u>						

		<u>(a)</u>			<u>(b)</u>	
	<u>Source</u>	<u>Number of Issuers</u>			<u>Weighted Issuers</u>	
<u>Line (25)</u>						
<u>First 50</u>	<u>Company Records</u>		X 2.5	=		
<u>Next 50</u>	<u>Company Records</u>		X 1.3	=		
<u>Next 300</u>	<u>Company Records</u>		X 1.0	=		
<u>Over 400</u>	<u>Company Records</u>		X 0.9	=		
<u>Total Number of Issuers from Line (23)</u>						
<u>Total Weighted Issuers</u>						
<u>Size Factor = Total Weighted Issuers divided by Total Number of Issuers</u>						

## ASSET CONCENTRATION FACTOR

LR010

### *Basis of Factors*

The purpose of the concentration factor is to reflect the additional risk of high concentrations in single exposures (represented by an individual issuer of a security or a holder of a mortgage, etc.) The concentration factor doubles the risk-based capital pre-tax factor (with a maximum of 45 percent pre-tax) of the 10 largest asset exposures excluding various low-risk categories or categories that already have a maximum factor. Since the risk-based capital of the assets included in the concentration factor has already been counted once in the basic formula, the asset concentration factor only serves to add in the additional risk-based capital required. The calculation is completed on a consolidated basis; however, the concentration factor is reduced by amounts already included in the concentration factors of subsidiaries to avoid double-counting.

### *Specific Instructions for Application of the Formula*

The 10 largest asset exposures should be developed by consolidating the assets of the parent with the assets of the company's insurance and investment subsidiaries. The concentration factor component on any asset already reflected in the subsidiary's RBC for the concentration factor should be deducted from Column (4). This consolidation process affects higher tiered companies only. Companies on the lowest tier of the organizational chart will prepare the asset concentration on a "stand alone" basis.

The 10 largest exposures should exclude the following: affiliated and non-affiliated common stock, affiliated preferred stock, home office properties, policy loans, bonds for which AVR and RBC are zero, NAIC 1 bonds, NAIC 1 unaffiliated preferred stock, NAIC 1 Hybrids, CM 1 Commercial and Farm Mortgages and any other asset categories with RBC factors less than 0.8 percent post-tax (this includes residential mortgages in good standing, insured or guaranteed mortgages, and cash and short-term investments).

In determining the assets subject to the concentration factor for both C-1o and C-1cs, the ceding company should exclude any asset whose performance inures primarily (>50 percent) to one reinsurer under modified coinsurance or funds withheld arrangements. The reinsurer should include 100 percent of such asset. Any asset where no one reinsurer receives more than 50 percent of its performance should remain with the ceding company.

Assets should be aggregated by issuer before determining the 10 largest exposures. Aggregations should be done separately for bonds and preferred stock (the first six digits of the CUSIP number can be used as a starting point) (please note that the same issuer may have more than one unique series of the first six digits of the CUSIP), mortgages and real estate. Securities held within Schedule BA partnerships should be aggregated by issuer as if the securities are held directly. Likewise, where joint venture real estate is mortgaged by the insurer, both the mortgage and the joint venture real estate should be considered as part of a single exposure. Tenant exposure is not included. For bonds and unaffiliated preferred stock, aggregations should be done first for classes 2 through 6. After the 10 largest issuer exposures are chosen, any NAIC 1 bonds, NAIC 1 unaffiliated preferred stock or NAIC 1 hybrids from any of these issuers should be included before doubling the risk-based capital. For some companies, following the above steps may generate less than 10 "issuer" exposures. These companies should list all available exposures.

Replicated assets other than synthetically created indices should be included in the asset concentration calculation in the same manner as other assets.

The book/adjusted carrying value of each asset is listed in Column (2).

The RBC factor will correspond to the risk-based capital category of the asset reported previously in the formula before application of the size factor for bonds. The RBC filing software automatically allows for an overall 45 percent RBC cap.

Lines (17) through (22)

The Asset Concentration RBC Requirement for a particular property plus the Real Estate RBC Requirement for a particular property cannot exceed the book/adjusted carrying value of the property. Any properties exceeding the book/adjusted carrying value must be adjusted down to the book/adjusted carrying value in Column (6) of the Asset Concentration.

Line (18), Column (4) is calculated as Line (17), Column (2) multiplied by 0.2300 plus Line (18), Column (2) multiplied by 0.2000, but not greater than Line (17), Column (2).

Line (20), Column (4) is calculated as Line (19), Column (2) multiplied by 0.1500 plus Line (20), Column (2) multiplied by 0.1200, but not greater than Line (19), Column (2).

Line (22), Column (4) is calculated as Line (21), Column (2) multiplied by 0.2300 plus Line (22), Column (2) multiplied by 0.2000, but not greater than Line (21), Column (2).

Lines (23) through (54)

The Asset Concentration RBC Requirement for a particular mortgage plus the LR004 Mortgages RBC Requirement or LR009 Schedule BA Mortgages RBC Requirement for a particular mortgage cannot exceed 45 percent of the book/adjusted carrying value of the mortgage. Any mortgages exceeding 45 percent of the book/adjusted carrying value must be adjusted down in Column (6) of the Asset Concentration.

Line (32), Column (4) is calculated as the greater of 0.1800 multiplied by [(Line (31) plus Line (32))] less Line (32) or Line (31) multiplied by the appropriate factor for the CM class to which the loan is assigned.

Line (34), Column (4) is calculated as the greater of 0.0140 multiplied by [(Line (33) plus Line (34))] less Line (34) or Line (33) multiplied by 0.0068.

Line (36), Column (4) is calculated as the greater of 0.1800 multiplied by [(Line (35) plus Line (36))] less Line (36) or Line (35) multiplied by the appropriate factor for the CM class to which the loan is assigned.

Line (38), Column (4) is calculated as the greater of 0.2200 multiplied by [(Line (37) plus Line (38))] less Line (38) or Line (37) multiplied by the appropriate factor for the CM class to which the loan is assigned.

Line (40), Column (4) is calculated as the greater of 0.0270 multiplied by [(Line (39) plus Line (40))] less Line (40) or Line (39) multiplied by 0.0068.

Line (42), Column (4) is calculated as the greater of 0.2200 multiplied by [(Line (41) plus Line (42))] less Line (42) or Line (41) multiplied by the appropriate factor for the CM class to which the loan is assigned.

Line (43), Column (4) is calculated as Line (43) multiplied by the appropriate factor for the CM class to which the loan is assigned.

Line (52), Column (4) is calculated as the greater of 0.1800 multiplied by [(Line (51) plus Line (52))] less Line (52) or Line (51) multiplied by the appropriate factor for the CM class to which the loan is assigned.

Line (54), Column (4) is calculated as the greater of 0.2200 multiplied by [(Line (53) plus Line (54))] less Line (54) or Line (53) multiplied by the appropriate factor for the CM class to which the loan is assigned.

## HEDGED ASSET BOND AND COMMON STOCK SCHEDULES

LR014 and LR015

*(Instructions related to intermediate hedges are in italics.)*

### Hedging

The concept of hedging credit, equity and other risks is widely accepted and understood among insurers and their regulators. In order for regulators to distinguish between insurers that have effectively reduced their risks from those insurers that have not, the risk based capital computation should be sensitive to such differences. Increasing or decreasing exposure to different asset classes in relation to a benchmark asset allocation tailored to meet the long term obligations to policy owners is critical to successfully managing an insurance company. Hedging is the process of using derivative instruments to most efficiently limit risk associated with a particular asset in a manner consistent with the insurer's long term objectives. The relative advantage of using cash market transactions versus derivative market transactions depends upon market conditions.

The NAIC model investment laws and regulations establish specific constraints on the use of derivatives. Governance of derivative use starts with approved and documented authorities from the insurer's Board of Directors to management. These authorities are coordinated with and enhanced by limits established by the insurer's domiciliary state.

Hedging strategies currently employed by insurers range from straightforward relationships between the hedged asset and the derivative instrument (the hedge) to more complex relationships. The purpose of this section of the RBC calculation is to measure and reflect in RBC the risk reduction achieved by an insurer's use of the most straightforward types of hedges involving credit default and equity C-1 risks.

To avoid the possible double counting of RBC credits, excluded from this section are any RBC credits arising from hedges that are part of the Clearly Defined Hedging Strategy (CDHS) required for C-3 cash flow testing or other risk mitigation techniques (e.g. reinsurance) which produce reduced levels of RBC by operation of other parts of the RBC formula.

### RBC and Measuring the Risk Reduced by Hedging

To measure the risks reduced by hedging and reflect the effects in RBC it is important to understand the characteristics and purpose of the hedge. A portfolio manager seeking to hedge a particular asset or portfolio risk must determine if the derivative instruments available will do a suitable job of risk mitigation.

Default risk - A portfolio manager may determine that the default risk of a particular debt security which matures in 8 years needs to be hedged because of a near term credit concern which may resolve before the debt matures. A credit default swap (CDS) would be the most effective hedging instrument. In some circumstances the manager may purchase a CDS with 8 years to maturity which fully mitigates the default risk and shall result in an RBC credit which fully offsets the C-1 default risk charge on the debt security. However, seeking the most liquid and cost efficient market for the purchase of such an instrument may lead to the purchase of a 5 year CDS which the manager plans to renew (roll) as the credit circumstances evolve in the coming years. In this case there is a 3 year maturity mismatch between the debt security and the hedging instrument. To account for the difference between insurers that have hedged the debt security to full maturity versus those with a mismatched position, the determination of the RBC credit shall be made in accordance with the following formula which limits the results to a fraction of the C-1 charge for the hedged asset.

$$\text{RBC Credit As \% of C1 Asset Charge} = \text{Min} \left( 1, \frac{\text{Time to Maturity of CDS}}{\text{Time to Maturity of Bond}} \right) \times (94\% - 10\%) + 10\%$$

This accounts for mismatched maturities and provides a regulatory margin of safety within a range of 94%-10% of the C-1 asset charge.

*There may also be circumstances where default risk is reduced by hedging specific portfolios using a basket or index-based derivative (e.g. CDX family of derivatives) with the same or very similar components as the portfolio. For these hedges the risk reduction shall be measured based on the number of issuers common to both the insurer's portfolio and the index/basket CDS. A minimum of 50% overlap of the derivative instrument notional amount and the book/adjusted carrying value of the hedged bonds shall be required to qualify for any RBC credit. Additionally, if the insurer hedges an index, each bond must be listed (e. g. if the insurer acquires a CDX that hedges 125 names equally, then the insurer must list all 125 names on the schedule), regardless if the insurer owns all the bonds in the index.*

As RBC is currently measured and reported annually and to an extent provides a regulator with an indicator of capital sufficiency for the near term future; default risk protection as provided by CDS (based on a specific security or an index of securities) shall have more than 1 year remaining to maturity in order to receive any RBC credit, provided that the remaining maturity of the hedged debt security or average maturity of the hedged portfolio is greater than 1 year. When both the default risk protection and the hedged debt security have less than one year to maturity, full RBC credit shall be allowed provided that the maturity of the protection is later than the maturity of the debt security; otherwise no RBC credit is allowed.

Equity market risk - A portfolio manager may determine that the market risk of holding a particular common stock needs to be reduced. Because an outright sale at that point in time might be disadvantageous to the insurer and/or policy owners, a short futures contract may be purchased to eliminate the current market risk by establishing a sale price in the future. The C-1 RBC equity risk credit shall be limited to 94%.

*There may also be circumstances where equity market risk is reduced by hedging equity portfolios using derivatives based on equity market indices (e.g. S&P 500 futures contracts). Unless the equity portfolio is exactly matched to the index, the hedge will not provide precise one-to-one protection from fluctuations in value. The insurer must list all positions in the equity index individually (e. g. all 500 common stocks that are part of the S&P 500), regardless if the insurer owns all the stocks in the index.*

#### Definitions and Instructions for the Spreadsheet Computation of Risk Reduction

(Numeric references represent spreadsheet columns)

##### Bonds

- (1) Description - Reported on Schedule DB.
- (2) Notional Amount - Amount reported on Schedule DB.
- (3) Relationship Type of the Hedging Instrument and Hedged Asset. There are two categories; Basic and Intermediate relationships. Basic relationship = Single issuer credit default swap on a single issuer name to hedge the credit risk of a specific hedged asset. *Intermediate relationship = A portfolio of insurer assets paired with a basket or index based hedging instrument with the same or very similar components as the portfolio. For intermediate relationships, a minimum of 50% overlap of the derivative instrument notional amount and the book adjusted carrying value of the hedged bonds shall be required to qualify for any RBC credit.*
- (4) Maturity Date - Date reported on Schedule DB.

- (5) Description - Bond description found in Schedule D. *For intermediate relationships, each bond must be listed (e. g. if the insurer acquires a credit default index that hedges 125 names equally, then the insurer must list all 125 names on the schedule.)*
- (6) CUSIP Identification - Bond unique identifier found in Schedule D.
- (7) Book Adjusted Carrying Value - Value found on Schedule D.
- (8) Overlap with Insurer's Bond Portfolio – The portion of Column (2) Notional Amount of the Hedging Instrument that hedges Column (7) Book Adjusted Carrying Value. This amount cannot exceed Column (7) Book Adjusted Carrying Value.
- (9) Maturity Date - The date is found in Schedule D.
- (10) NAIC Designation - Designation found in Schedule D. Necessary to determine correct RBC Factor for the Bonds.
- (11) RBC Factor - Factor based on Column (10) NAIC Designation and NAIC C-1 RBC factors table.
- (12) Gross RBC Charge – This is the C-1 RBC charge based on holdings at the end of the year. Calculation: Columns (7) Book Adjusted Carrying Value multiplied by (11) RBC Factor.
- (13) RBC Credit for Hedging Instruments – If Column (8) Overlap with Insurer's Bond Portfolio is zero; the RBC Credit would also be zero. The Hedging Instrument must have more than 1 year remaining to maturity in order to receive any RBC credit provided that the remaining time to maturity of the Hedged Asset - Bonds is greater than 1 year. If both the Hedging Instrument and the Hedged Asset - Bonds maturity dates are less than 1 year, the maximum RBC credit determined using the formula below shall be allowed provided that the maturity of the hedging instrument is equal to or later than the maturity of the bond. Calculation is Column (8) Overlap with Insurer's Bond Portfolio multiplied by RBC Credit as % of C-1 Asset Charge formula (formula listed below) multiplied by Column (11) RBC Factor.

$$\text{RBC Credit as \% of C1 Asset Charge} = \text{Min} \left( 1, \frac{\text{Time to Maturity of Hedging Instrument}}{\text{Time to Maturity of Bond}} \right) \times (94\% - 10\%) + 10\%$$

Time to Maturity of Hedging Instrument divided by Time to Maturity of Bond cannot exceed 1.

- (14) Net RBC Charge – Column (12) Gross RBC Charge minus (13) RBC Credit for Hedging Instruments.

#### Common Stocks

- (1) Description - Reported on Schedule DB.
- (2) Notional Amount - Amount reported on Schedule DB.
- (3) Relationship Type of the Hedging Instrument and Hedged Asset. There are two categories; Basic relationships or Intermediate relationships. Basic relationship = Single name equity Hedging Instrument paired with a specific common stock. *Intermediate relationship = A portfolio of common stocks paired with a basket or index based Hedging Instrument with the same or very similar components as the portfolio. For intermediate relationships, a minimum of 50% overlap of the derivative instrument notional amount and the book adjusted carrying value of the hedged common stocks shall be required to qualify for any RBC credit.*



- (4) Description - Common Stock description found in Schedule D Part 2 Section 2. *For intermediate relationships, each common stock must be listed (e. g. if the insurer acquires a short futures contract that hedges the S&P 500, then the insurer must list all 500 stocks on the schedule).*
- (5) CUSIP Identification - Common Stock unique identifier found in Schedule D Part 2 Section 2.
- (6) Book Adjusted Carrying Value - Value found on Schedule D Part 2 Section 2.
- (7) Overlap with Insurer's Stock Portfolio – The portion of Column (2) Notional Amount of the Hedging Instrument that hedges Column (6) Book/Adjusted Carrying Value. This amount cannot exceed the Column (6) Book Adjusted Carrying Value.
- (8) RBC Factor - Factor based on NAIC C-1 RBC factors table.
- (9) Gross RBC Charge - The C-1 RBC charge based on holdings at the end of the year. Calculation: Columns (6) Book Adjusted Carrying Value multiplied by (8) RBC Factor.
- (10) RBC Credit for Hedging Instruments - RBC credit for equity market risk reduction is limited to 94% of the C-1 Asset charge. Calculation: Column (7) Overlap with Insurer's Stock Portfolio multiplied by (8) RBC Factor multiplied by 94%.
- (11) Net RBC Charge - Column (9) Gross RBC Charge minus (10) RBC Credit for Hedging Instruments.

Factors Table  
As determined by the NAIC

NAIC Designation	Factor
	0.00000
1	0.00158
1.A	0.00158
1.B	0.00271
1.C	0.00419
1.D	0.00523
1.E	0.00657
1.F	0.00816
1.G	0.01016
2.A	0.01261
2.B	0.01523
2.C	0.02168
3.A	0.03151
3.B	0.04537
3.C	0.06017
4.A	0.07386
4.B	0.09535
4.C	0.12428
5.A	0.16942
5.B	0.23798
5.C	0.30000
6	0.30000
<b>Common Stock Type</b>	
Other Unaffiliated Public Common Stock	0.4500 †
Money Market Mutual Funds	0.0040
Federal Home Loan Bank Common Stock	0.0110
Unaffiliated Private Common Stock	0.3000
† - 30 percent adjusted up or down by the weighted average beta for the publicly traded common stock portfolio subject to a minimum of 22.5 percent and a maximum of 45 percent.	

**OFF-BALANCE SHEET COLLATERAL**  
(Including any Schedule DL, Part 1 Assets not Included in the Asset Valuation Reserve)  
LR018

*Basis of Factors*

Security lending programs are required to maintain collateral. Some entities post the collateral supporting security lending programs on their financial statements, and incur C-1 risk charges on those assets. Other entities have collateral that is not recorded on their financial statements. While not recorded on the financial statements of the company, such collateral has risks that are not otherwise captured in the RBC formula.

Annual Statement Schedule DL, Part 1, Securities Lending Collateral Assets reported on the balance sheet (Assets Page, Line 10) should be included on the schedule with the Off-Balance Sheet Collateral if they are not already reflected in the Asset Valuation Reserve and are reflected in another portion of the Life RBC formula.

The collateral in these accounts is maintained by a third-party (typically a bank or other agent). The collateral agent maintains on behalf of the company detail asset listings of the collateral assets, and this data is the source for preparation of this schedule. The company should maintain such asset listings, at a minimum CUSIP, market value, book/carrying value, and maturity date. The asset risk charges are derived from existing RBC factors for bonds, preferred and common stocks, other invested assets, and invested assets not otherwise classified (aggregate write-ins).

*Specific Instructions for Application of the Formula*

Off-balance sheet collateral included in General Interrogatories, Part 1, Lines 24.05 and 24.06 of the annual statement should agree with Line (19).

Lines (1) through (8) – Bonds

Bond factors are described on page LR002 Bonds.

Line (9) through (15) – Preferred Stocks

Preferred stock factors are described on page LR005 Unaffiliated Preferred and Common Stock.

Line (16) – Common Stock

Common stock factors are described on page LR005 Unaffiliated Preferred and Common Stock.

Line (17) – Schedule BA – Other Invested Assets

Other invested assets factors are described on page LR008 Other Long Term Assets.

Line (18) – Aggregate Write-ins for Other Invested Assets

Aggregate write-ins for other invested assets factors are described on page LR012 Miscellaneous Assets.

Preliminary Proposed Updates to RBC C1 Bond Factors  
For Discussion with Life Risk-Based Capital (E) Working Group

April 22, 2021

Moody's (NYSE:MCO) is a global integrated risk assessment firm that empowers organizations to make better decisions. Its data, analytical solutions and insights help decision-makers identify opportunities and manage the risks of doing business with others. We believe that greater transparency, more informed decisions, and fair access to information open the door to shared progress. With over 11,400 employees in more than 40 countries, Moody's combines an international presence with local expertise and more than a century of experience in financial markets. Learn more at [moody's.com/about](https://www.moody's.com/about).

Moody's Corporation is comprised of two separate companies: Moody's Investors Service (MIS) and Moody's Analytics (MA).

Moody's Investors Service (MIS) provides investors with a comprehensive view of global debt markets through credit ratings and research. Moody's Analytics (MA) provides data, analytics, and insights to equip leaders of financial, non-financial, and government organizations with effective tools to understand a range of risks.

Throughout this document, "MIS rating" refers to a MIS credit rating. And while references to MIS are made, the views and opinions in this document are solely of MA.

## Scope

What We're Doing

**Proposing RBC C1 bond factors using data and methodologies that better reflect economic risks to better assess insolvency risk and help identify potentially weakly capitalized life insurers; the C1 factors should not incentivize poor business decisions that can adversely impact solvency.**

- Methodologies and data rely entirely on public sources that are accessible and reproducible by NAIC and industry
- Articulated limitations
- NAIC to use at its discretion in setting the final C1 factors, although MA cautions isolated modifications to modeling features and parameters without considerations of the interconnected elements of the C1 modeling framework and limitations
- While the ACLI, the industry, the NAIC, and commissioners have been engaged extensively, the views are solely those of MA and based on an objective assessment of supporting documentation, and data and modeling approaches that in MA's experience viewed as best practice

## Heuristic Performance Criteria

How We're Doing It

### Proposing C1 factors that

- Better represent the historical experience of life insurers' holdings
- More accurately reflect empirically observed default correlations and issuer diversification benefits

### Challenges:

- C1 factors are cardinal, and a function of MA's default rates estimated using MIS corporate default rates that reflect the historical experience of life insurance corporate holdings for each MIS rating, which are opinions of ordinal, horizon-free credit risk, rather than cardinal
- C1 factors are static while risks and spreads change over time, across ratings and asset classes, resulting in a potential misalignment between the C1 factors and the underlying risks of varied holdings in insurers' portfolios.
- Applied to range of credit assets, based on their NAIC designations (i.e., the second lowest nationally recognized statistical rating organization (NRSRO) rating) with statistical properties that can be different from those estimated using MIS corporate default rates

## References

### Past presentation to the Life Risk-Based Capital (E) Working Group

- [Assessment of Proposed Revisions to the RBC C1 Bond Factors](#) (February 2021)
- [MA's Update on Proposed C1 Bond Factors](#) (March 2021)
- [MA's Preliminary Proposed Updates to RBC C1 Bond Factors](#) (April 15, 2021)

# Agenda

1. Overview of Impactful Targeted Improvements
2. Economic State Model and the MA Proposed Correlation Model
3. Default Rates
4. Risk Premium
5. Discount Rate and Tax Rate
6. Recap

1

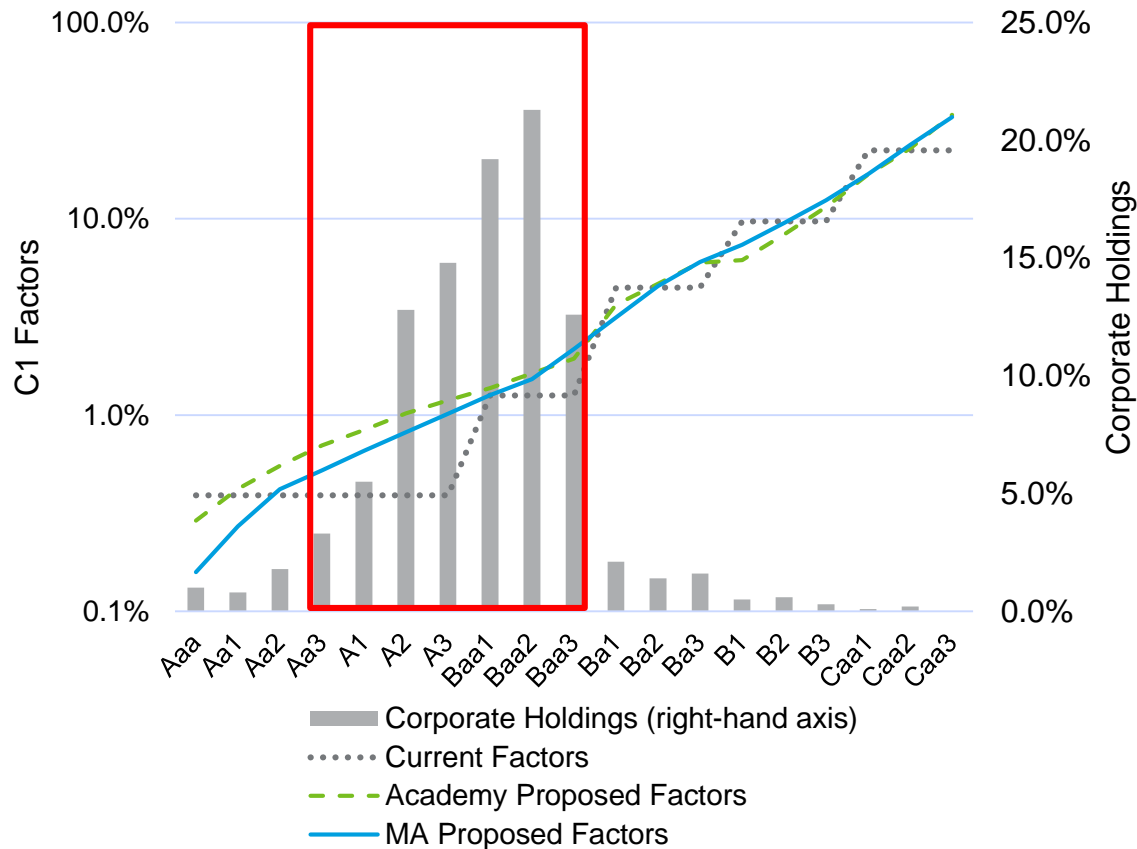
Overview of Impactful  
Targeted Improvements



# MA's Proposed C1 Factors

Targeted improvements with largest impact

C1 Base Factors (log scale) and Corporate Holdings



**Economic state model**, initially outside scope, limitations sufficiently material that MA recommends replacement Attachment E

- » Economic state model understates default correlations and overstates diversification across issuers relative to that observed empirically, resulting in:
  - C1 base factors that potentially understate credit losses
  - PAFs that are overly punitive (lenient) to portfolios with a smaller (larger) number of issuers
- » Economic Scalars result in counterfactual increases and decreases to the C1 base factors across the NAIC designation categories. They lead to an overall flattening of high yield C1 base factors relative to investment grade, and under certain parameterizations C1 base factors that are non-monotonic.
- » MA proposed correlation model is calibrated to default correlations and diversification across issuers observed empirically. Resulting C1 base factors are more conservative and differentiated across MIS ratings compared with economic state model.

**Corporate default rate term structures** estimated to historical experience of life company holdings

- » Life company holdings differ from overall issuance; e.g., life company holdings have less weight on financial institutions that tend to issue shorter term debt.
- » MA proposed default rates tend to have a steeper slope (more differentiated across MIS ratings) than those proposed by the Academy, with differentiation more closely aligning with benchmarks.

**Risk Premium** set at expected loss plus 0.5 standard deviation recognizing variation in industry reserving standards and to closer align with PBR and reserving standards generally aiming to cover moderately adverse conditions. A higher Risk Premium lowers the C1 base factors and mildly increases the cross-sectional variation (or slope) and should be set to better identify of weakly capitalized firms identify and mitigate risk shifting incentives with new bond purchases.

**Discount Rate & Tax rate** set at 3.47% (2000-2020 window) and 21% under guidance of NAIC during the Life Risk-Based Capital (E) Working Group meeting on April 22, 2021. While an alternative window start date can be justified, the discount rate enters the RBC C1 framework as a single static rate and not as impactful as some other targeted improvements, reinforced by updated tax rate offset. Potentially important term structure dynamics that interplay with credit risk are not captured within the current framework.

# 2

## Economic State Model and the MA Proposed Correlation Model

# Economic State Model Initially Outside Scope

## Two material limitations

Economic state model is calibrated to default rates across contraction and expansion states, but it implies default correlations of ~0% for IG issuers, overstating diversification across issuers relative to that observed empirically, resulting in:

- » C1 base factors that potentially understate credit losses
- » PAFs that are overly punitive (lenient) to portfolios with a smaller (larger) number of issuers

Economic Scalars, that are applied to the default rate term structure in each simulated state (expansion and contraction) exhibit counterfactual increases and decreases across the NAIC designation categories.

- » They lead to an overall flattening of C1 base factors for high yield relative to those of investment grade
  - › Contraction Economic Scalars average **2.56** for investment grade and **1.75** for high yield (1)
- » Under certain parameterizations C1 base factors are non-monotonic, e.g., contraction scalar going from 1.9421 (Ba3) to 1.4958 (B1) (2).

Economic Scalars	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3		
Continued Expansion	NA	NA	NA	NA	NA	NA	NA	0.7381	0.7380	0.7392	0.8189	0.8192	0.8189	0.8617	0.8620	0.8617	0.8549	0.8542	0.8536		
Expansion	0.7365	0.7342	0.7361	0.7334	0.7309	0.7290	0.7300	1.1301	1.1299	1.1318	0.8381	0.8384	0.8381	1.1901	1.1905	1.1901	0.9100	0.9093	0.9087		
Contraction	(1)	2.7495	2.7409	2.7482	2.7378	2.7287	2.7214	2.7252	2.1479	2.1475	2.1511	(1)	1.9422	1.9429	1.9421	1.4958	1.4964	1.4958	1.8042	1.8028	1.8016
Continued Contraction	NA	NA	NA	NA	NA	NA	NA	3.2231	3.2224	3.2279	2.9728	2.9738	2.9727	2.2114	2.2122	2.2114	2.2388	2.2371	2.2356		

# MA Proposed Correlation Model

Calibrated to default correlations observed empirically

The Academy's 10-year simulation model was adapted

- » Default rate Economic Scalars set to 1 (this effectively disables the economic state model)
- » Default correlations calibrated to empirically observed default correlations and issuer diversification benefits

Several benchmarks for default correlation

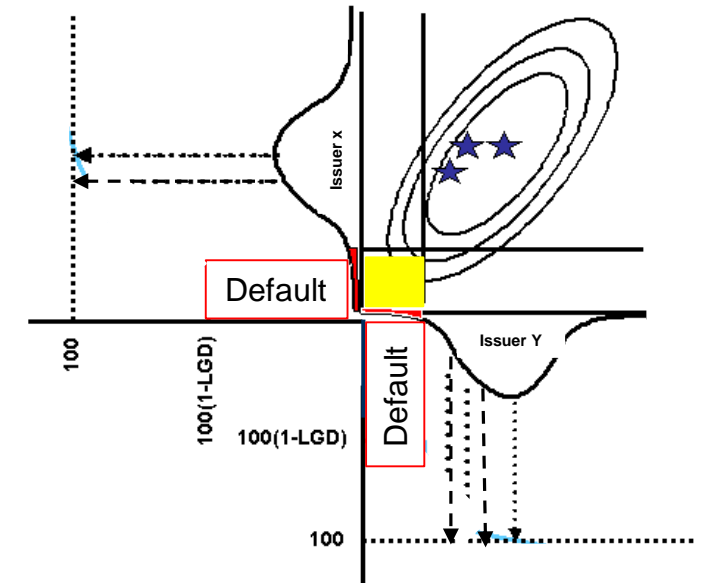
- » Joint default events
- » CDS implied
- » MIS ratings implied
- » Equity market and financial statement

MA proposed correlation model results in

- » C1 base factors that reflect empirical default correlations and are more conservative and more differentiated across MIS ratings than those implied by the economic state model; and
- » PAFs that more accurately reflect issuer diversification benefits, and that are less punitive (lenient) to portfolios with a smaller (larger) number of holdings, relative to those from Academy's proposal

MA proposed correlation model is calibrated to reflect empirically observed joint default events across MIS rating categories

- » In each period the likelihood of issuer x and y defaulting is determined by their default rates as depicted by the visualized distribution in red
- » The likelihood of a joint default, captured through a single factor model, is depicted in yellow and determined by the joint distribution represented by concentric circles
- » The model is continuous and not tied to 2 (or 4) discrete economic states, and generally results in higher 96 percentile loss



# Proposed C1 Base Factors

Incremental effects of replacing the economic state model with MA's proposed correlation model

- » MA's proposed correlation model generally increases C1 base factors
- » **(1)** As part of the economic state model, Economic Scalars lead to overall flattening of high yield C1 base factors relative to investment grade. MA's proposed correlation model
  - increases high yield factors by 28%
  - Increases investment grade factors by 24%
- » **(2)** Economic Scalars lead to non-monotonic C1 base factors under some parameterizations, e.g., 4.952% for Ba3 to 4.920% for B1
- » **(3)** Economic Scalars lead to more differentiation (22%) between A3 and Baa1 C1 base factors, compared to the correlation model (11%)

MIS Rating	Current Factors	Academy's Proposed Factors [March 2021]	MA's Preliminary Proposed Base Factors with Economic State Model & Academy's Default Rates	MA's Preliminary Proposed Base Factors with Correlation Model & Academy's Default Rates
Aaa	0.390%	0.290%	<b>(1)</b> 0.254%	0.289%
Aa1	0.390%	0.420%	0.373%	0.412%
Aa2	0.390%	0.550%	0.476%	0.550%
Aa3	0.390%	0.700%	0.593%	0.715%
A1	0.390%	0.840%	0.694%	0.896%
A2	0.390%	1.020%	0.817%	1.046%
A3	0.390%	1.190%	<b>(3)</b> 0.921%	1.254%
Baa1	1.260%	1.370%	1.128%	1.388%
Baa2	1.260%	1.630%	1.287%	1.633%
Baa3	1.260%	1.940%	1.542%	1.956%
Ba1	4.460%	3.650%	<b>(1)</b> 2.848%	3.955%
Ba2	4.460%	4.660%	3.739%	4.840%
Ba3	4.460%	5.970%	<b>(2)</b> 4.952%	5.995%
B1	9.700%	6.150%	4.920%	7.854%
B2	9.700%	8.320%	6.614%	9.901%
B3	9.700%	11.480%	9.319%	12.679%
Caa1	22.310%	16.830%	13.364%	16.044%
Caa2	22.310%	22.800%	18.788%	19.870%
Caa3	22.310%	33.860%	31.359%	28.933%

# Proposed PAF – MA's Findings

## Implications of MA's proposed correlation model

- » PAFs calibrated to the economic state model overstate issuer diversification benefits.
- » MA's proposed correlation model is calibrated to default correlations and issuer diversification benefits observed empirically.

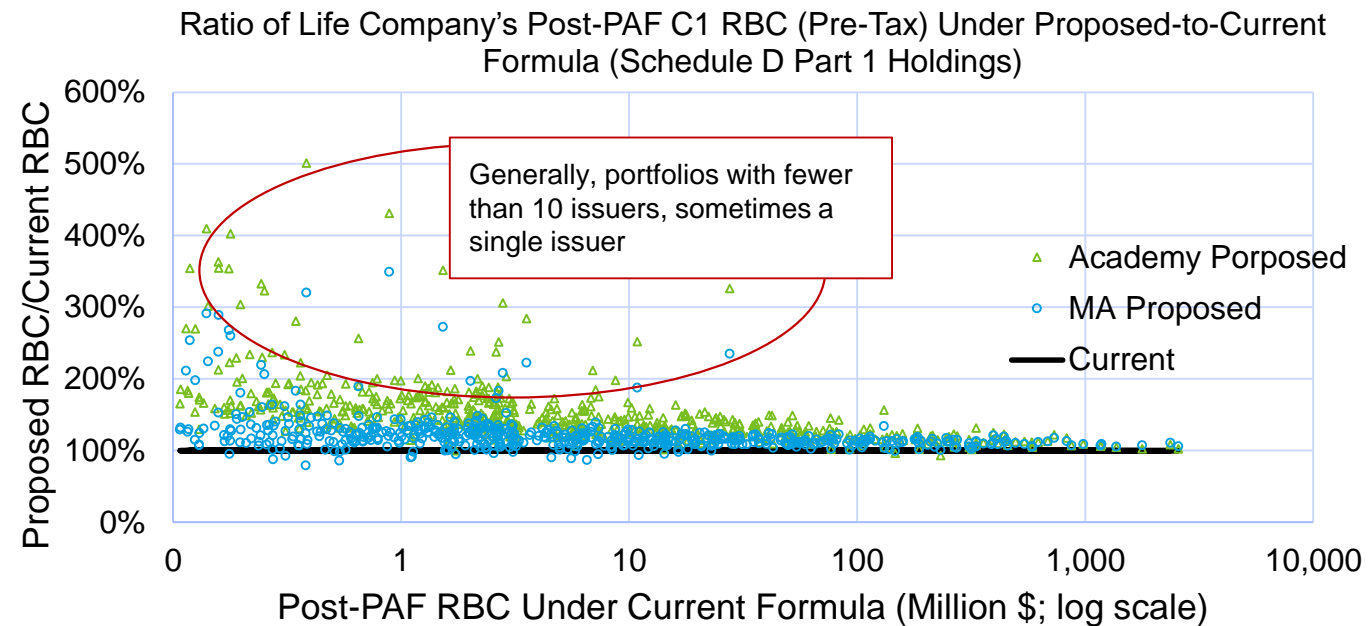
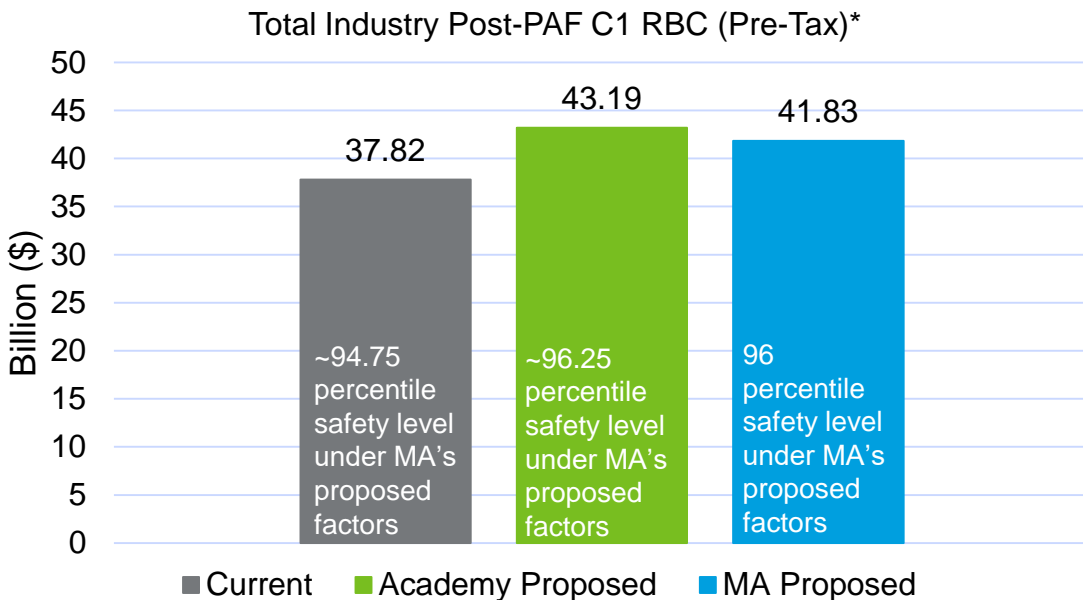
Thresholds*	Current*	Academy Proposed [March 2021]	MA Preliminary Proposed PAF
(Up to) 10	2.50	7.50	5.87
(Next) 90	1.83	1.75	1.53
(Next) 100	1.00	0.90	0.85
(Next) 300	0.97	0.85	0.85
(Above) 500	0.90	0.75	0.82

\*Current PAF converted to Academy's proposed thresholds for better comparison.

# MA's Proposed Factors

## Impact on Post-PAF C1 RBC

- » Resulting RBC under MA's proposal are generally more conservative than under the current formula, with an increase across life companies of different sizes.
- » Under the Academy's proposal, a disproportionate share of the C1 RBC increase is attributed to life companies with portfolios that have a small and medium number of issuers, driven largely by the economic state model implying more issuer diversification benefits (i.e., lower default correlations).



# 3

## Default Rates



# MA Proposed 10-Year Cumulative Default Rates

More closely reflect historical experience of life companies' corporate holdings

Raw default rates and benchmarks are subject to data challenges:

- » Non-monotonicity (1)
- » Few defaults in upper end of MIS ratings spectrum (2). 3 Aaa defaults in the US since 1970; 2 were debatable and experienced near full recovery (Texaco and Getty Oil).

Historical experience of life companies' corporate holdings differs from overall issuance (3), the resulting default rates tend to have a steeper slope (more differentiated across MIS ratings) than those proposed by the Academy.

MA proposed baseline default rates combine empirical data, anchoring, and smoothing to address data paucity and ensure conformity to economic logic.

- » **Anchoring:**
  - 10-year cumulative default rates for **Aa2, A2, Baa2, Ba2, B2, Caa** are anchored to Aa, A, Baa, Ba, B, Ca sector-weighted US corporate CDRs at 1- and 10-year, with curvature adjustment.
- » **Interpolation:**
  - Other alphanumeric ratings were interpolated geometrically between anchored ratings.

MIS Rating	Proposed by Academy	MIS IDR Rating Symbols and Definitions	MIS Annual Default Study (2021)		MA Empirical Results Based on MIS Historical Data	MA Specification
			Global Sample	Global Sample	US Sample (Sector weighted)	
			Aaa-B3 (1983-2020)	Coarse MIS Ratings	Coarse MIS ratings	
			Caa1-Caa3 (1998-2020)	(1983-2020)	Value	
Aaa	0.226%	0.010%	(2) 0.127%	0.127%	0.503%	0.079%
Aa1	0.430%	0.100%	0.201%	(3) 0.729%	0.602%	0.203%
Aa2	0.723%	0.200%	0.833%		0.763%	
Aa3	1.144%	0.400%	0.907%		1.122%	
A1	1.710%	0.700%	1.584%	2.065%	1.751%	1.650%
A2	2.347%	1.200%	(1) 2.339%		2.272%	
A3	3.052%	1.800%	2.211%		3.129%	
Baa1	3.855%	2.600%	2.261%	3.362%	4.482%	4.309%
Baa2	4.827%	3.600%	3.059%		6.850%	
Baa3	6.076%	6.100%	5.059%		10.889%	
Ba1	14.226%	9.400%	8.860%	14.943%	18.679%	17.310%
Ba2	18.472%	13.500%	12.219%		22.191%	
Ba3	24.342%	17.660%	23.090%		28.448%	
B1	32.298%	22.200%	28.593%	34.134%	38.536%	36.471%
B2	42.574%	27.200%	33.436%		44.981%	
B3	54.703%	34.900%	41.262%		55.478%	
Caa1	66.851%	47.700%	44.220%	50.219%	51.363%	68.424%
Caa2	75.403%	65.000%	54.609%		84.391%	
Caa3	75.750%	80.700%	64.710%			

# Holdings Composition Differ from Overall Issuance

## Aligning parameters with Historical Experience

- » Institutional features drive life insurers towards holdings with characteristics different from overall issuance
- » Certain sectors are more suitable for life insurers across the ratings scale
  - Financial sector issued debt tends to exhibit shorter duration (3.9 average remaining maturity), with insurers holding longer dated financial sectors issues (11.1 average remaining maturity) **(1)**
  - Insurers hold a varying proportion of debt across the rating scale **(2)**
- » Relevant in the estimation of
  - Default rates
  - LGD

MIS Rating	U.S. Utility		U.S. Industrial		U.S. Financial	
	Sector as a Percentage of Life Corporate Holdings	Proportion of Corporate Issuers Attributed to Sector	Sector as a Percentage of Life Corporate Holdings	Proportion of Corporate Issuers Attributed to Sector	Sector as a Percentage of Life Corporate Holdings	Proportion of Corporate Issuers Attributed to Sector
Aaa	0.5%	5.9%	93.2%	42.9%	6.3%	51.2%
Aa	6.2%	8.3%	73.3%	36.5%	<b>(2)</b> 20.5%	55.2%
A	26.5%	17.8%	49.9%	46.0%	23.6%	36.2%
Baa	9.6%	21.2%	71.4%	58.1%	19.0%	20.7%
Ba	5.0%	5.9%	86.4%	81.5%	8.6%	12.6%
B	0.1%	1.0%	96.9%	92.8%	3.0%	6.2%
Caa	0.1%	0.6%	96.1%	95.6%	3.8%	3.9%
Ca	0.0%	1.1%	100.0%	90.4%	0.0%	8.5%
Overall	14.9%	10.4%	65.3%	68.1%	<b>(1)</b> 19.8%	21.5%

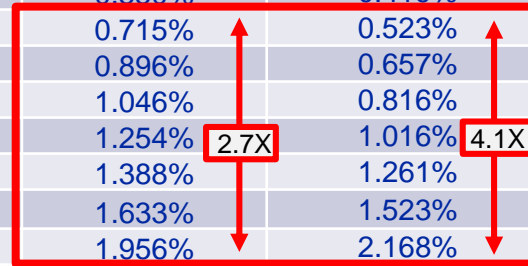
U.S. Corporate Sector	Average Time to Maturity for life insurers' US corporate holdings (notional weighted)	Average Time to Maturity for US corporate issues	Proportion of Issuers Attributed to Sector
Financial	<b>(1)</b> 11.1	3.9	21.5%
Industrial	12.8	7.7	68.1%
Utility	15.9	11.0	10.4%

# Proposed C1 Base Factors

## Incremental effects of MA proposed default rates

- » Default rate term structures representing experience of life insurance holdings tend to be more differentiated across MIS ratings than Academy proposed, and closer aligned to benchmarks
- » The resulting C1 base factors under MA's proposed default rates are generally more differentiated across the Aa3 to Baa3 range
- » The ratio of the Baa3 factor to the Aa3 factor is
  - 2.7 under MA's proposal with the Academy's default rates
  - 4.1 under MA's proposal
- » The Academy's proposed default rates result in C1 base factors being approximately 15% larger on average than under MA's proposed default rates.

MIS Rating	Current Factors	MA's Preliminary Proposed Base Factors with Academy's Default Rates	MA's Preliminary Proposed Base Factors
Aaa	0.390%	0.289%	0.158%
Aa1	0.390%	0.412%	0.271%
Aa2	0.390%	0.550%	0.419%
Aa3	0.390%	0.715%	0.523%
A1	0.390%	0.896%	0.657%
A2	0.390%	1.046%	0.816%
A3	0.390%	1.254%	1.016%
Baa1	1.260%	1.388%	1.261%
Baa2	1.260%	1.633%	1.523%
Baa3	1.260%	1.956%	2.168%
Ba1	4.460%	3.955%	3.151%
Ba2	4.460%	4.840%	4.537%
Ba3	4.460%	5.995%	6.017%
B1	9.700%	7.854%	7.386%
B2	9.700%	9.901%	9.535%
B3	9.700%	12.679%	12.428%
Caa1	22.310%	16.044%	16.942%
Caa2	22.310%	19.870%	23.798%
Caa3	22.310%	28.933%	32.975%



4

Risk Premium

# Risk Premium Updates

## Aligning with reserves

- » C1 RBC is the minimum required capital above statutory reserves to buffer against a tail loss
  - Risk Premium acts as an offset to C1 RBC; it is the part of statutory reserves provisioned against default loss
- » Variation in industry reserving standards
  - Both VM-20 and VM-21 explicitly require that reserves cover CTE 70, or approximately 88th percentile, default loss
  - VM-20 only applies to new life products after 2017. Most existing policies follow industry reserving standards that are commonly understood to cover moderately adverse conditions.
- » Recognizing variation in industry reserving standards and to closer align with PBR and reserving standards generally aim to cover moderately adverse conditions, Risk Premium is proposed to be set at **expected loss plus 0.5 standard deviation**
  - A higher Risk Premium lowers the C1 base factors and mildly increases their differentiation across MIS ratings and should better identify weakly capitalized firms and mitigate risk shifting incentives with new bond purchases
  - On average, as we decrease (increase) the risk premium by 0.5 standard deviation from MA's proposed level, the C1 base factors increase (decrease) around 20% for investment grade and around 15% for high yield factors
- » A transition to expected loss plus one standard deviation once
  - VM-20 become more widely applicable
  - VM-22 is formally updated and widely applicable

# 5

## Discount Rate and Tax Rate

# Discount and Tax Rate

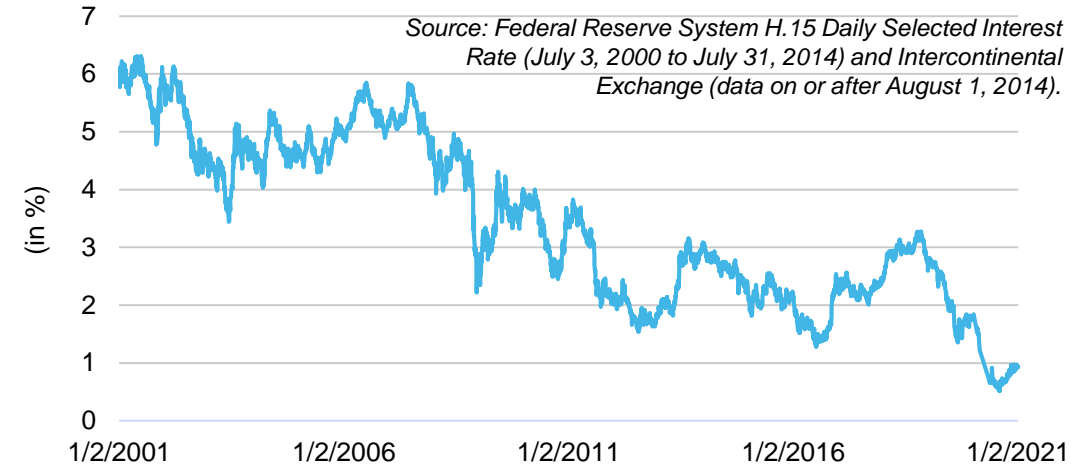
## Possible candidates

Tax rate was updated from 35% to 21%

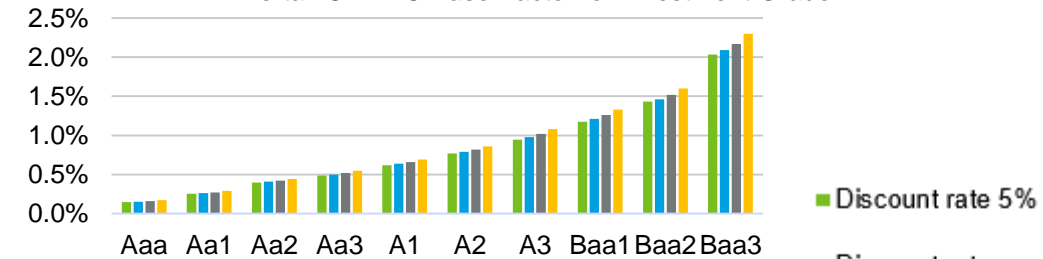
## Discount rate

- » Used to calculate the net present value of projected cash flows.
- » MA recognizes the need to parameterize the discount rate with a long-term perspective of long-term interest rates, and the desire for this parameter to be relatively stable while also allowing a closer reflection of the current, low-rate, environment
  - 2000–2020 (3.47%) used in developing MA proposed C1 base factors under guidance of NAIC during the Life Risk-Based Capital (E) Working Group meeting on April 22, 2021
- » Compared with the discount rate of 3.47%
  - 1993–2013 used by the Academy (5%) decreases C1 base factors by
    - › 6-7% for investment grade
    - › 3-6% for high-yield
  - 1993–2020 (4.32%) decreases C1 base factors by
    - › 2-6% for investment grade
    - › 2-3% for high-yield
  - 2010-2020 (2.25%) increases C1 base factors by
    - › 5-7% for investment grade
    - › 3-5% for high-yield

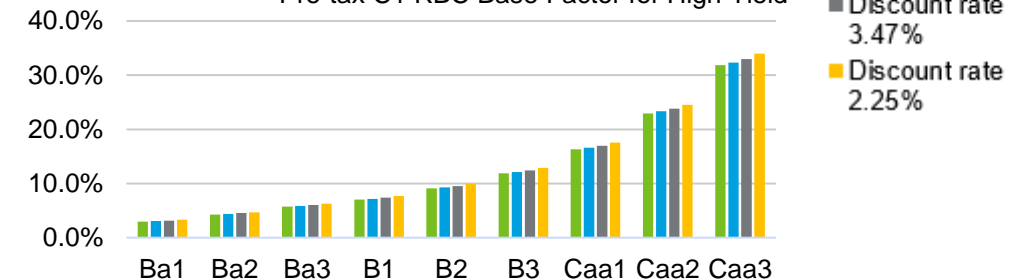
10-year USD Swap Rate



Pre-tax C1 RBC Base Factor for Investment Grade



Pre-tax C1 RBC Base Factor for High Yield



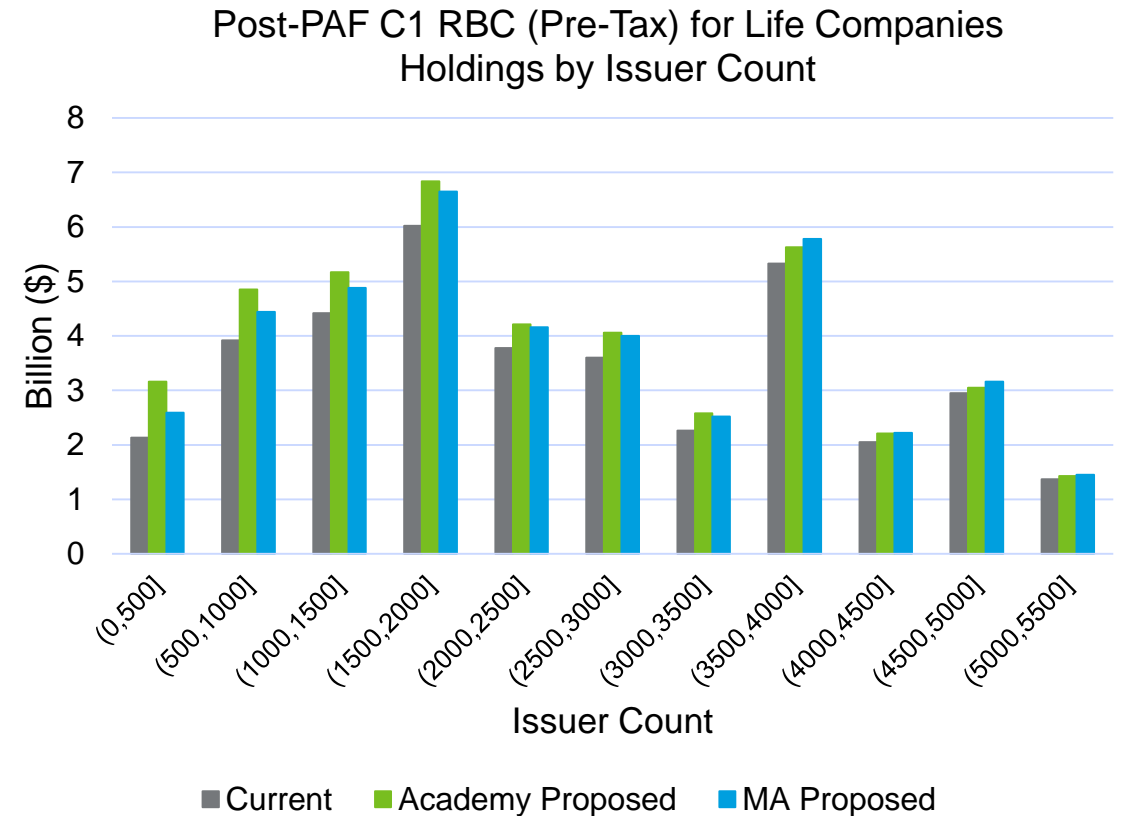
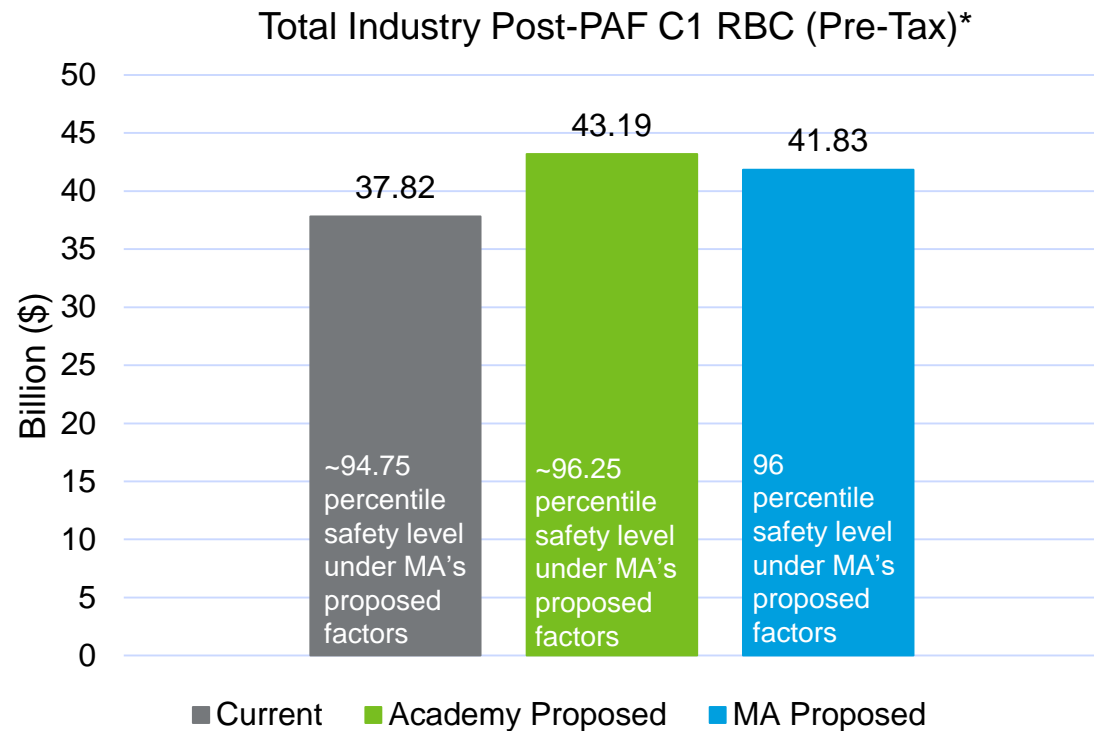
6

Recap



# Post-PAF C1 RBC Industry Impact – Complete Portfolio Holdings

Post-PAF RBC proposed by MA is higher than the current level



\*Data on ~94% life companies in US that have reported, which includes over 99% of the industry BACV as of 03/19/2021

# Summary of MA Proposed C1 Factors and their Impact

Data better represents historical experience of life insurers' holdings; methodologies better capture issuer diversification

C1 base factors & PAFs more accurately reflect empirically observed default rates, default correlations, & diversification

More accurate C1 base factors and PAFs; better aligned with insolvency risk; reduced risk-shifting incentives

## » Impact on post-PAF C1 RBC

- Higher post-PAF RBC, on average, across the life industry compared to current formula
- Larger post-PAF RBC increase compared to current formula, on average, for insurers with small and medium number of issuers, but much less so than that under Academy's proposal

## » Limitations of economic state model and their impact on accuracy of C1 base factors & PAFs

- The economic state model overstates diversification across issuers relative to that observed empirically, resulting in
  - › Understatement of credit losses in C1 base factors, all else equal
  - › PAFs that are overly punitive (lenient) to portfolios with a smaller (larger) number of issuers
- Economic Scalars, which are part of the economic state model under the Academy's proposal, result in counterfactual increases and decreases to the C1 base factors across the NAIC designation categories. They lead to an overall flattening of high yield C1 base factors relative to investment grade, and under certain parameterizations C1 base factors that are non-monotonic.

## » Impact of replacing the economic state model with MA proposed correlation model

- MA proposed correlation model more accurately reflects empirically observed default correlations and issuer diversification benefits, and that addresses all aforesaid limitations of the economic state model. As a result:
  - › MA proposed C1 base factors are more conservative and more differentiated across NAIC designation categories than those implied by the economic state model.
  - › MA proposed PAFs more accurately reflect issuer diversification benefits and are less punitive (lenient) to portfolios with a small (larger) number of issuers, relative to those from the Academy's proposal.

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MA C1 Factors with Risk Premium (RP) Sensitivity Analysis and  
Override of Portfolio Adjustment Factors (PAFs)  
For Discussion with Life Risk-Based Capital (E) Working Group

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# Requested Sensitivity Analysis of MA C1 Factors

As requested by Life Risk-Based Capital (E) Working Group on May 20, 2021

1. Sensitivity analysis of MA C1 factors with Risk Premium changed from expected loss plus 0.5 standard deviation to 60<sup>th</sup> percentile while maintaining other MA targeted modifications
  - Increases and flattens the base factors. The factors are less differentiated across NAIC designations, resulting in lower rated credit becoming more attractive on a relative basis
  - Base factors increase by ~21% for investment grade NAIC designations, and ~11% for high yield
  - The increase in Post-PAF C1 RBC range from 9% (for portfolios with lower NAIC rated issuers) to 37% (for portfolios with higher NAIC rated issuers)
2. Analysis of post-PAF RBC with portfolio adjustment factor (PAF) overridden for portfolios with fewer than 50 issuers (106 life portfolios; Book Adjusted Carrying Values range from \$79K to \$877M)
  - MA PAF-override post-PAF C1 RBC is, in general, higher than under the current formula, and the increase continues to be relatively evenly distributed across life companies of different sizes
  - To facilitate comparison, the Academy's PAF-override post-PAF C1 RBC is analyzed, and is found to remain disproportionately higher for small and medium sized life portfolios

**For articulation of defined scope and performance criteria associated with methodology, data, and limitations associated with MA C1 factors, see [‘Moody's Analytics' Report on Proposed Bond Factor Revisions’](#)**

# Overview of Risk Premium (Recap)

One of several interconnected modifications with largest impact to MA C1 factors

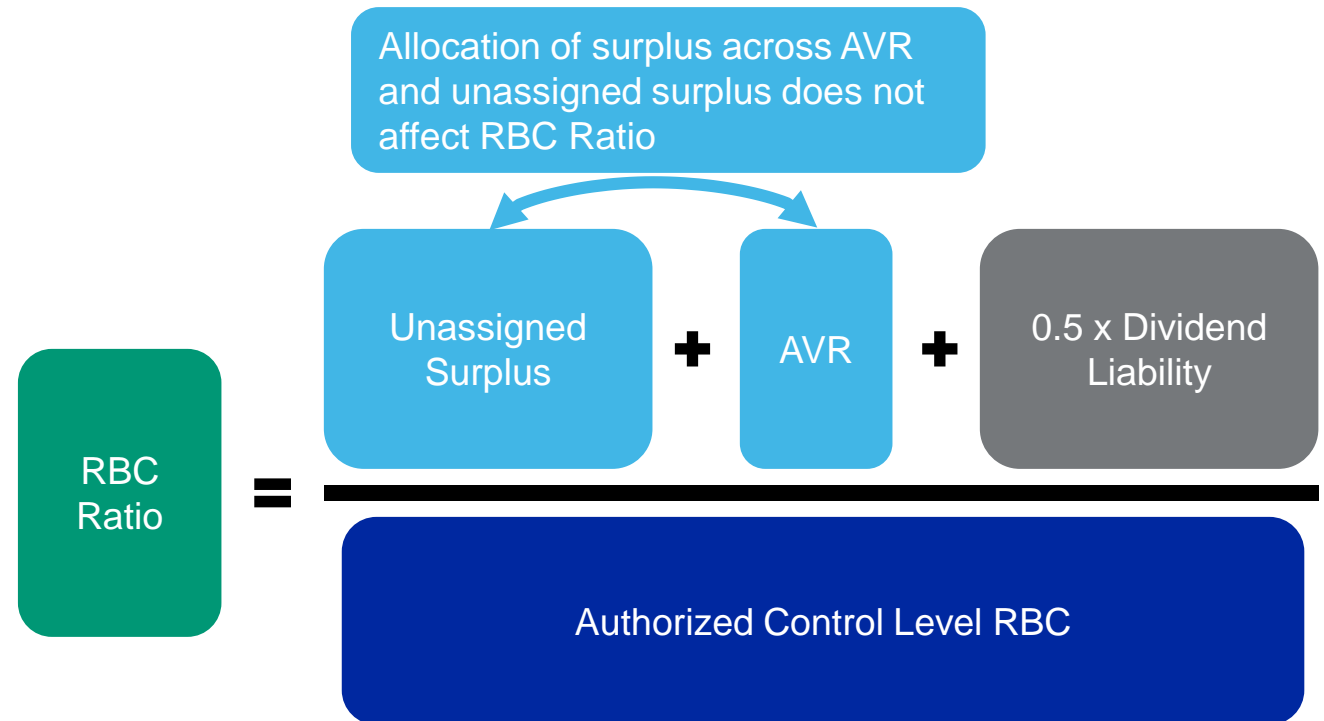
- » MA understands C1 RBC is the minimum required capital above statutory reserves to buffer against a tail loss
  - Risk Premium acts as an offset to C1 RBC
- » Variation in industry reserving standards
  - VM-20 and VM-21 explicitly require that reserves cover CTE 70, or approximately 88th percentile, default loss, without accounting for any assets backing Asset Valuation Reserve (AVR)
  - VM-20 applies to new life products after 2017; with increasing coverage for new bond purchases
  - New reserve standards such as VM-22 are also expected to follow the same framework and cover CTE 70 default loss
  - Existing policies follow industry reserving standards, which generally aim to cover moderately adverse conditions; AVR used in Cash Flow Testing (CFT) of these reserves is excluded from Total Adjusted Capital (TAC), and thus functions as additional CFT reserves rather than available capital
- » MA's Risk Premium
  - Together with several other interconnected modifications, MA's Risk Premium was set at **expected loss plus 0.5 standard deviation** recognizing variation in industry reserving standards and to closer align with PBR and other reserving standards generally aimed to cover moderately adverse conditions



# Aligning C1 Factors with AVR (Recap)

The Academy raised concerns related to Risk Premium and AVR consistency

- » AVR is an allocation of surplus to smooth the cyclical of credit default events
- » Allocation of surplus across AVR and unassigned surplus does not affect RBC Ratio
- » AVR does not enter the Academy or MA's C1 formula
- » While historically the basic contribution of AVR has been set to be the same as Risk Premium, the alignment between AVR and Risk Premium is not relevant to the RBC framework, whose purpose is to help identify potentially weakly capitalized companies



# C1 Base Factors

Sensitivity analysis with Risk Premium set at 60<sup>th</sup> percentile

- » With the Risk Premium set at the 60<sup>th</sup> percentile, base factors increase across the board
- » The factors are less differentiated across NAIC designations, resulting in lower rated credit being more attractive on a relative basis
- » Factors increase by around 21% for investment grade NAIC designations, and around 11% for high yield

MIS Rating	Current Base Factors	Academy Proposed Base Factors	MA Base Factors	MA Base Factors with Risk Premium at 60 <sup>th</sup> Percentile
Aaa	0.390%	0.290%	0.158%	0.204%
Aa1	0.390%	0.420%	0.271%	0.334%
Aa2	0.390%	0.550%	0.419%	0.501%
Aa3	0.390%	0.700%	0.523%	0.623%
A1	0.390%	0.840%	0.657%	0.787%
A2	0.390%	1.020%	0.816%	0.976%
A3	0.390%	1.190%	1.016%	1.217%
Baa1	1.260%	1.370%	1.261%	1.505%
Baa2	1.260%	1.630%	1.523%	1.782%
Baa3	1.260%	1.940%	2.168%	2.562%
Ba1	4.460%	3.650%	3.151%	3.692%
Ba2	4.460%	4.660%	4.537%	5.160%
Ba3	4.460%	5.970%	6.017%	6.858%
B1	9.700%	6.150%	7.386%	8.404%
B2	9.700%	8.320%	9.535%	10.692%
B3	9.700%	11.480%	12.428%	13.637%
Caa1	22.310%	16.830%	16.942%	18.328%
Caa2	22.310%	22.800%	23.798%	25.209%
Caa3	22.310%	33.860%	32.975%	34.720%

# PAF-Override for Portfolios with Fewer than 50 Issuers

Assigned the PAF level of a portfolio with 50 issuers

## PAFs in step function form

# of Issuers in the Portfolio	Current		Academy		MA			
					Risk Premium at Expected Loss Plus 0.5 Std Dev		Risk Premium at 60%ile	
	PAF	PAF	PAF Override	PAF	PAF Override	PAF	PAF Override	
Up to 10	2.50	7.50	2.90	5.87	2.40	6.24	2.43	
Next 40	2.50	1.75	2.90	1.53	2.40	1.48	2.43	
Next 50	1.30	1.75	1.75	1.53	1.53	1.48	1.48	
Next 100	1.00	0.90	0.90	0.85	0.85	0.86	0.86	
Next 300	0.97	0.85	0.85	0.85	0.85	0.86	0.86	
Over 500	0.90	0.75	0.75	0.82	0.82	0.83	0.83	

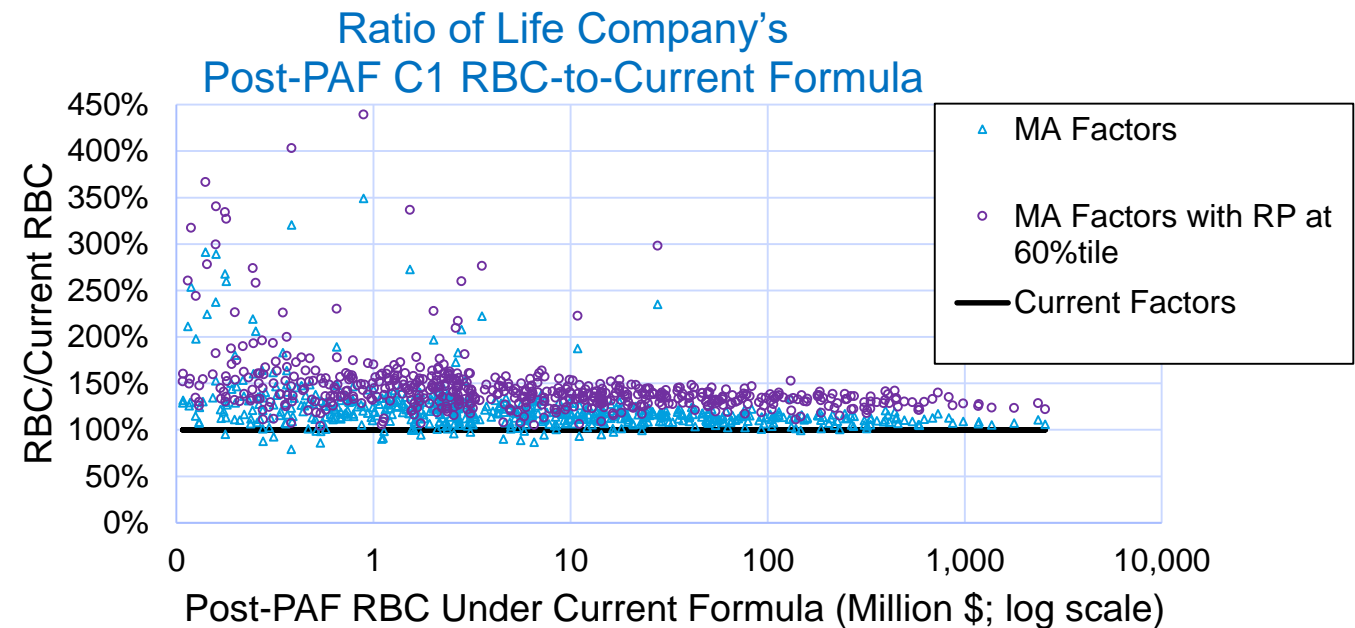
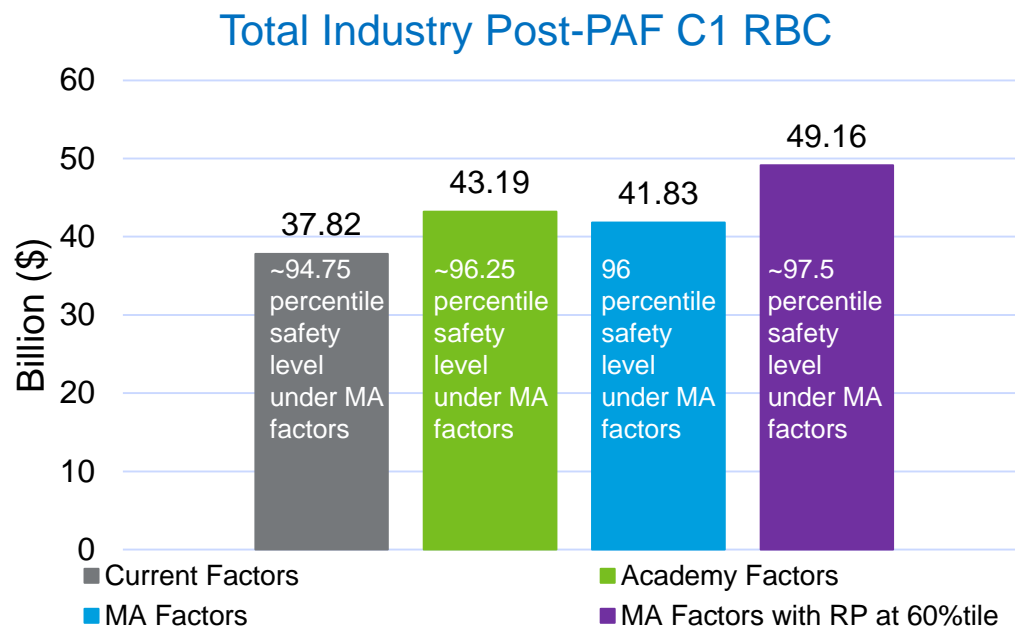
## PAFs in final form

# of Issuers in the Portfolio	Current		Academy		MA			
					Risk Premium at Expected Loss Plus 0.5 Std Dev		Risk Premium at 60%ile	
	PAF	PAF	PAF Override	PAF	PAF Override	PAF	PAF Override	
10	2.50	7.50	2.90	5.87	2.40	6.24	2.43	
50	2.50	2.90	2.90	2.40	2.40	2.43	2.43	
100	1.90	2.33	2.33	1.96	1.96	1.96	1.96	
300	1.30	1.36	1.36	1.22	1.22	1.23	1.23	
500	1.16	1.16	1.16	1.07	1.07	1.08	1.08	
1000	1.03	0.95	0.95	0.95	0.95	0.95	0.95	
2000	0.97	0.85	0.85	0.88	0.88	0.89	0.89	
3000	0.94	0.82	0.82	0.86	0.86	0.87	0.87	

# Sensitivity Analysis with Risk Premium set at 60<sup>th</sup> percentile

## Without PAF-override

- » Total industry post-PAF C1 RBC increases from \$41.83B to \$49.16B when MA formula's Risk Premium is set at 60<sup>th</sup> percentile
- » The increase in Post-PAF C1 RBC ranges from 9% (for portfolios with lower NAIC rated issuers) to 37% (for portfolios with higher NAIC rated issuers)



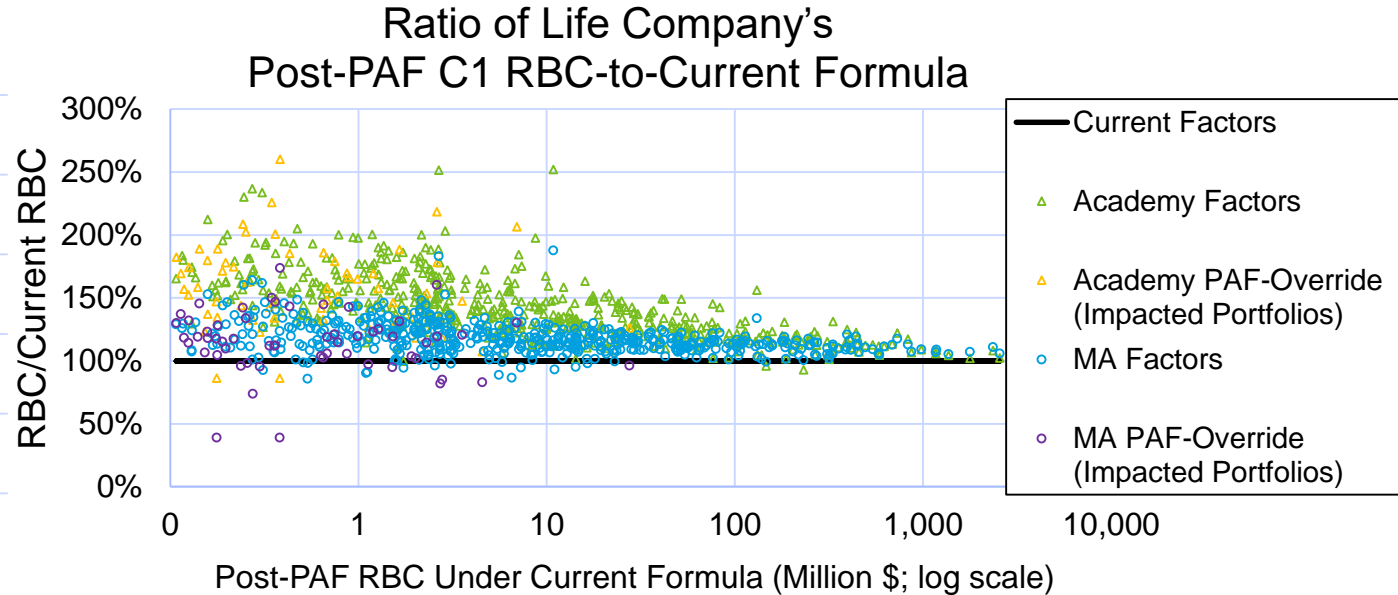
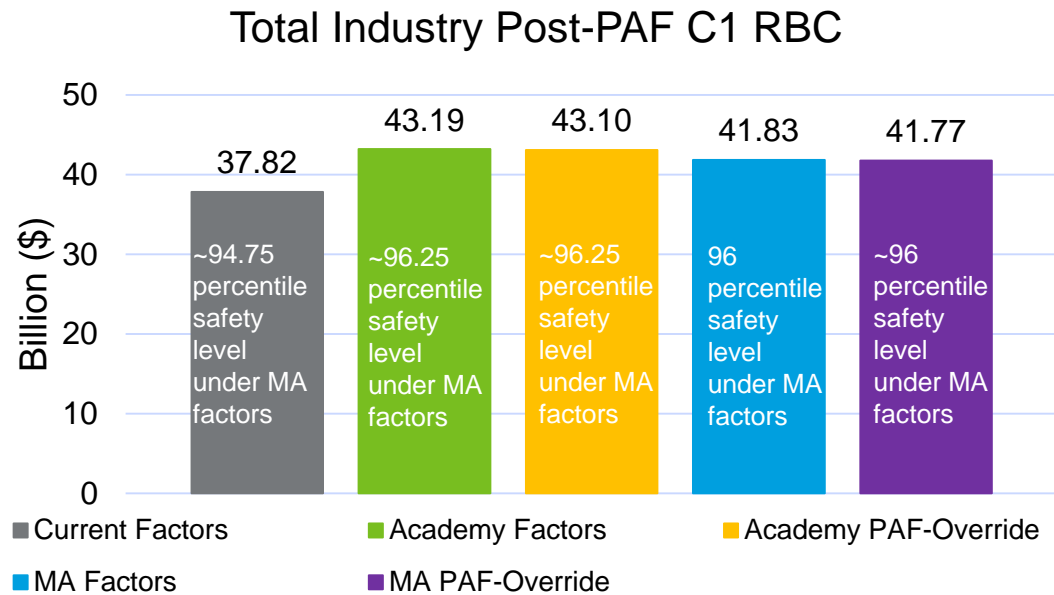
Note 1: Holdings includes all exposures on Schedule D Part 1 excluding US government bonds.

Note 2: For visual ease, the right-hand graph excludes portfolios with less than \$100K post-PAF RBC under the current formula.

# Impact of PAF-Override for Portfolios with fewer than 50 Issuers

While keeping MA's Risk Premium set at expected loss plus 0.5 standard deviation

- » PAF-override decreases Post-PAF RBC for 106 portfolios with fewer than 50 issuers; Book Adjusted Carrying Values ranges from \$79K to \$877M
- » Total industry PAF-override post-PAF C1 RBC impact is limited under the MA and Academy factors
- » MA PAF-override post-PAF C1 RBC is, in general, higher than under the current formula; the increase continues to be relatively evenly distributed across life companies of different sizes
- » To facilitate comparison of the two proposals, the Academy's PAF-override post-PAF C1 RBC is analyzed and found to be, in general, higher than under the current formula; the analysis continues to show the disproportionate increase for small and medium sized life portfolios



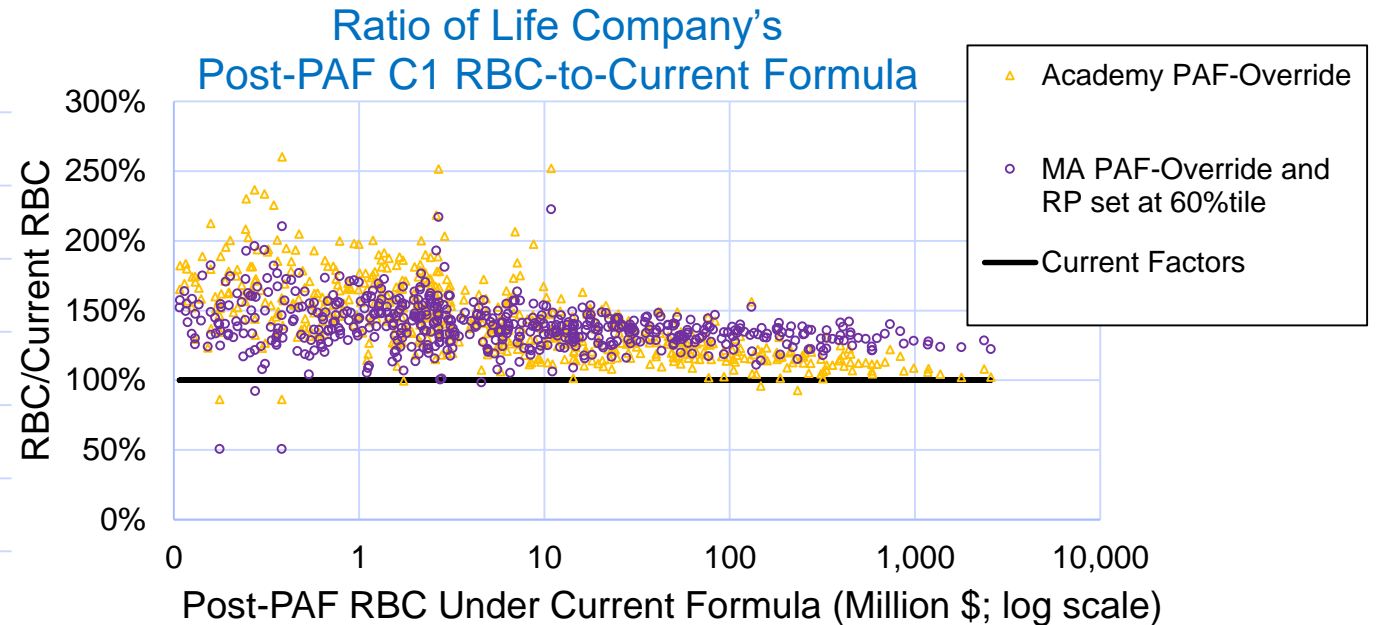
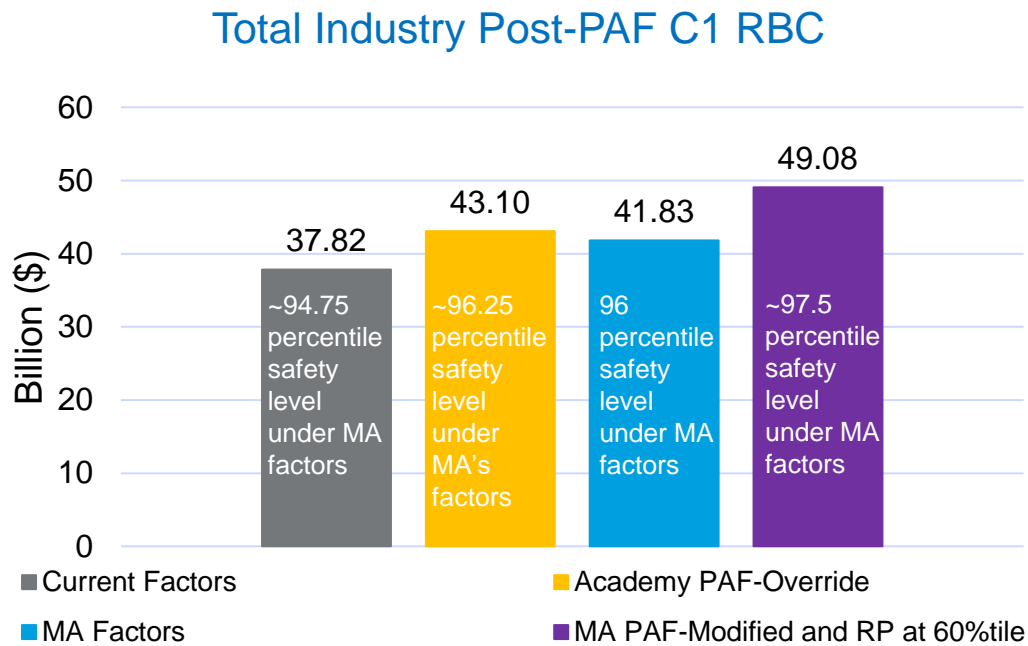
Note 1: Holdings includes all exposures on Schedule D Part 1 excluding US government bonds.

Note 2: For visual ease, the right-hand graph excludes portfolios with less than \$100K post-PAF RBC under the current formula.

# Combined Impact

With Risk Premium set at the 60<sup>th</sup> percentile and PAF-override

- » MA formula with Risk Premium and PAF-override set at the 60<sup>th</sup> percentile results in post-PAF C1 RBC that is, in general, meaningfully higher than under the current formula, and relatively evenly distributed across life companies of different sizes
- » To facilitate comparison of the two proposals, the Academy’s PAF-override post-PAF C1 RBC is analyzed and found to be higher than under the current formula and the increase remains disproportionately larger for small and medium sized life portfolios



Note 1: Holdings includes all exposures on Schedule D Part 1 excluding US government bonds.

Note 2: For visual ease, the right-hand graph excludes portfolios with less than \$100K post-PAF RBC under the current formula.

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## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group     | <input checked="" type="checkbox"/> Life RBC (E) Working Group |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup         |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input type="checkbox"/> P/C RBC (E) Working Group        | <input type="checkbox"/> Longevity Risk (A/E) Subgroup         |

<b>DATE:</b> <u>4/29/21</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Dave Fleming</u>	Agenda Item # <u>2021-12-L</u>
<b>TELEPHONE:</b> <u>816-783-8121</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>d Fleming@naic.org</u>	<b><u>DISPOSITION</u></b>
<b>ON BEHALF OF:</b> <u>Life Risk-Based Capital (E) Working Group</u>	<input type="checkbox"/> ADOPTED <u>_____</u>
<b>NAME:</b> <u>Philip Barlow, Chair</u>	<input type="checkbox"/> REJECTED <u>_____</u>
<b>TITLE:</b> <u>Associate Commissioner of Insurance</u>	<input type="checkbox"/> DEFERRED TO <u>_____</u>
<b>AFFILIATION:</b> <u>District of Columbia</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP
<b>ADDRESS:</b> <u>1050 First Street, NE Suite 801</u>	<input checked="" type="checkbox"/> EXPOSED <u>4/29/21</u>
<u>Washington, DC 20002</u>	<input type="checkbox"/> OTHER (SPECIFY) <u>_____</u>

#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Health RBC Blanks       | <input type="checkbox"/> Property/Casualty RBC Blanks       | <input checked="" type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input type="checkbox"/> Property/Casualty RBC Instructions | <input checked="" type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |   |   |

#### DESCRIPTION OF CHANGE(S)

This proposal changes the description on line 15 on LR016 to allow for inclusion of amounts held for reciprocal jurisdiction reinsurance.

#### REASON OR JUSTIFICATION FOR CHANGE \*\*

The purpose of the credit in the life RBC formula is to avoid having both the total adjusted capital decreased by amounts re-established as liabilities and the authorized control level increased for the charge on reserve credit and recoverable amounts.

#### Additional Staff Comments:

- 4-29-21: Proposal was exposed for comments (DBF)

\*\* This section must be completed on all forms.

Revised 2-2019

**REINSURANCE**

	Annual Statement Source	(1) Statement Value	(2) 100% Owned Affiliates	(3) RBC Subtotal	Factor	(4) RBC Requirement
<u>Reinsurance Ceded†</u>						
(1) Recoverable on Paid Losses (Life)	Schedule S Part 2 Column 6 Line 1199999				X 0.0078	=
(2) Recoverable on Paid Losses (A&H)	Schedule S Part 2 Column 6 Line 2299999				X 0.0078	=
(3) Recoverable on Unpaid Losses (Life)	Schedule S Part 2 Column 7 Line 1199999				X 0.0078	=
(4) Recoverable on Unpaid Losses (A&H)	Schedule S Part 2 Column 7 Line 2299999				X 0.0078	=
(5) Unearned Premiums (A&H)	Schedule S Part 3 Section 2 Column 9 Line 4599999				X 0.0078	=
(6) Other Reserve Credits (A&H)	Schedule S Part 3 Section 2 Column 10 Line 4599999				X 0.0078	=
(7) Reserve Credit (Life)	Schedule S Part 3 Section 1 Column 9 Line 4599999				X 0.0078	=
		(1) Statement Value	(2) Other than 100% Owned Affiliates	(3) RBC Subtotal	Factor	(4) RBC Requirement
<u>Reinsurance Assumed Credit</u>						
(8) Affiliate Reserve Credit (Life)	Schedule S Part 1 Section 1 Column 9 Line 0799999				X -0.0078	=
(9) Affiliate Reinsurance Payable (Life)	Schedule S Part 1 Section 1 Column 11 Line 0799999				X -0.0078	=
(10) Reinsurance Assumed on Unearned Premiums (A&H)	Schedule S Part 1 Section 2 Column 9 Line 0799999				X -0.0078	=
(11) Reinsurance Assumed Other Reserved Credits (A&H)	Schedule S Part 1 Section 2 Column 10 Line 0799999				X -0.0078	=
(12) Reinsurance Assumed - Losses (A&H)	Schedule S Part 1 Section 2 Column 11 Line 0799999				X -0.0078	=
<u>Reinsurance Payable Credit</u>						
(13) Reinsurance in Unauthorized and Certified Companies	Page 3 Column 1 Line 24.02				X -0.0078	=
(14) Funds Held in Unauthorized and Certified Reinsurers	Page 3 Column 1 Line 24.03				X -0.0078	=
(15) Funds Held in Authorized Reinsurers <b>and Funds Held in Reciprocal Jurisdiction Reinsurers</b> and Trusteed Collateral Supporting Authorized Reinsurance	Page 3 Column 1 <b>Line 24.07 Line-25</b> in part and Company Records				X -0.0078	=
(16) Other Reinsurance Recoverable or Reserves "Reestablished" on Page 3	Page 3 Column 1 Line 25				X -0.0078	=
(17) Total Reinsurance	Sum of Lines (1) through (16)					

† Statement values should be net of policy loans if policy loans are part of the reinsurance transaction.

Denotes items that must be manually entered on the filing software.

**REINSURANCE**

LR016

*Basis of Factors*

There is a risk associated with recoverability of amounts from reinsurers. The risk is deemed comparable to that represented by bonds between risk classes 1 and 2 and is assigned a pre-tax factor of 0.78 percent. To avoid an overstatement of risk-based capital, the formula gives a 0.78 percent pre-tax credit for reinsurance with non-authorized and certified companies, for reinsurance among affiliated companies, for reinsurance with funds withheld or reinsurance with authorized reinsurers that is supported by equivalent trusted collateral that meets the requirements stipulated in Appendix A-785 (Credit for Reinsurance), where there have been regular bona fide withdrawals from such trusted collateral to pay claims or recover payments of claims during the calendar year covered by the RBC report, and for reinsurance involving policy loans. Withdrawals from trusted collateral that are less than the amounts due the ceding company shall be deemed to not be bona fide withdrawals.

*Specific Instructions for Application of the Formula*Lines (1) through (7)

The first seven components of the reinsurance formula are charged against all reinsurance recoverables and ceded reserve credits as reported in Schedule S.

Lines (8) through (12)

A negative 0.78 percent pre-tax factor is applied to these five components. These adjustments should only be applied to business assumed from subsidiaries of the company. The adjustment should be multiplied by the proportion of the ceding company owned by the parent. The subsidiary's RBC is part of the individual company's RBC, and sister affiliate reinsurers should NOT be included. In addition, no adjustment should be made where an adjustment has already been taken in the re-established liability components above. This would be the case if the subsidiary reinsurer was unauthorized or the treaty with the company involved funds held.

Lines (13) through (16)

The last four components are primarily Page 3 liabilities (including Line 24.02 – Reinsurance in Unauthorized and Certified Companies ~~and~~ Line 24.03 – Funds Held under Reinsurance Treaties with Unauthorized and Certified Reinsurers, Line 24.07 – Funds Held under Coinsurance and Line 25 – Aggregate Write-ins for Liabilities). Line (15) is also to include amounts in support of Lines (1) through (7) and subject to the provisions of Credit for Reinsurance Model Regulation (#786). A pre-tax factor of negative 0.78 percent is applied. This considers that these liabilities reported on Page 3 have been reestablished in the balance sheet offsetting the reinsurance ceded reserve credits taken elsewhere.

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## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group     | <input type="checkbox"/> Life RBC (E) Working Group               |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup            |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input type="checkbox"/> P/C RBC (E) Working Group        | <input checked="" type="checkbox"/> Longevity Risk (A/E) Subgroup |

<b>DATE:</b> <u>4/29/2021</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Dave Fleming</u>	Agenda Item # <u>2021-13-L</u>
<b>TELEPHONE:</b> <u>816-783-8121</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>dfleming@naic.org</u>	<b><u>DISPOSITION</u></b>
<b>ON BEHALF OF:</b> <u>Longevity Risk (A/E) Subgroup</u>	<input type="checkbox"/> ADOPTED <u>6/3/21</u>
<b>NAME:</b> <u>Rhonda Ahrens, Chair</u>	<input type="checkbox"/> REJECTED _____
<b>TITLE:</b> <u>Chief Actuary</u>	<input type="checkbox"/> DEFERRED TO _____
<b>AFFILIATION:</b> <u>Nebraska Department of Insurance</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP
<b>ADDRESS:</b> <u>1135 M Street, Suite 300</u>	<input checked="" type="checkbox"/> EXPOSED <u>4/29/2021</u>
<u>Lincoln, NE 68501-2089</u>	<input type="checkbox"/> OTHER (SPECIFY) _____

#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Health RBC Blanks       | <input type="checkbox"/> Property/Casualty RBC Blanks       | <input checked="" type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input type="checkbox"/> Property/Casualty RBC Instructions | <input checked="" type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |   |   |

#### DESCRIPTION OF CHANGE(S)

This proposal presents base factors and correlation and guardrail factors for the longevity risk charge.

#### REASON OR JUSTIFICATION FOR CHANGE \*\*

The Longevity Risk (A/E) Subgroup was charged with providing recommendations for recognizing longevity risk in statutory reserves and/or RBC, as appropriate. The Subgroup's recommendation for the structure necessary was adopted by the Life Risk-Based Capital (E) Working Group on 2-14-20 in proposal 2019-13-L and factors of zero were adopted in proposal 2020-06-L for year end 2020.

#### Additional Staff Comments:

•

\*\* This section must be completed on all forms.

Revised 2-2019

**LONGEVITY RISK**

LR025-A

*Basis of Factors*

The factors chosen represent surplus needed to provide for claims in excess of reserves resulting from increased policyholder longevity calibrated to a 95<sup>th</sup> percentile level. For the purpose of this calibration aggregate reserves were assumed to provide for an 85<sup>th</sup> percentile outcome.

Longevity risk was considered over the entire lifetime of the policies since these annuity policies are generally not subject to repricing. Calibration of longevity risk considered both trend risk based on uncertainty in future population mortality improvements, as well as level or volatility risk which derives from misestimation of current population mortality rates or random fluctuations. Trend risk applies equally to all populations whereas level and volatility risk factors decrease with larger portfolios consistent with the law of large numbers.

Statutory reserve was chosen as the exposure base as a consistent measure of the economic exposure to increased longevity. Factors were also scaled by reserve level since number of insured policyholders is a less accessible measure of company specific volatility risk. Factors provided are pre-tax and were developed assuming a 21% tax adjustment would be subsequently applied.

*Specific Instructions for Application of the Formula*

Annual statement reference is for the total ~~life contingent~~ reserve for the products in scope. The scope includes annuity products with life contingent payments where benefits are to be distributed in the form of an annuity. The entire reserve amount for contracts in scope that include any life contingent payments are in scope. For example, under a certain-and-life style annuity, the entire reserve for both the certain payments and life contingent payments are in scope. Variable immediate annuity reserves under VM-21 are also in scope where there are life contingent payments. #Scope does not include annuity products that are not life contingent, or deferred annuity products where the policyholder has a right but not an obligation to annuitize. A certain-and-life style annuity, where only certain payments remain (such as following the death of the annuitant), is out of scope. Variable deferred annuity contract reserves under VM-21 are out of scope, including reserves valued under VM-21 for any contracts where policyholder account value has reached zero, but a lifetime benefit may still be payable by the insurer. Line (3) for General Account Life Contingent Miscellaneous reserves is included in the event there are any reserves for products in scope reported on Exhibit 5 line 0799999; it is not meant to include cash flow testing reserves reported on this line. Included in scope are:

- Single Premium Immediate Annuities (SPIA) and other payout annuities in pay status
- Deferred ~~Payout-Income~~ Annuities which will enter annuity pay status in the future ~~upon annuitization~~
- Structured Settlements for annuitants with any life contingent benefits
- Group Annuities, such as those associated with pension liabilities with both immediate and deferred benefits

The total reserve exposure is then further broken down by size as in a tax table. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to reserves is completed automatically. The calculation is as follows:

<u>Line (5)</u>	<u>Life Contingent Annuity Reserves</u>	(1) <u>Statement Value</u>	<u>Factor</u>	(2) <u>RBC Requirement</u>
	First 250 Million	_____	X <b>0.0171</b> =	_____
	Next 250 Million	_____	X <b>0.0108</b> =	_____
	Next 500 Million	_____	X <b>0.0095</b> =	_____
	Over 1,000 Million	_____	X <b>0.0089</b> =	_____
	Total Life Contingent Annuity Reserves	=====		=====

The amount ultimately included in the authorized control level will be subject to a guardrail factor of 0 and a correlation factor of -.25.

Longevity Risk

	(1)		(2)
Annual Statement Source	Statement Value	Factor	RBC Requirement
(1) General Account Life Contingent Annuity Reserves	Exhibit 5 Column 2 Line 0299999, in part ‡		
(2) General Account Life Contingent Supplemental Contract Reserves	Exhibit 5 Column 2 Line 0399999, in part ‡		
(3) General Account Life Contingent Miscellaneous Reserves	Exhibit 5 Column 2 Line 0799999, in part ‡		
(4) Separate Account (SA) Life Contingent Annuity Reserves	S/A Exhibit 3 Column 2 Line 0299999, in part ‡		
(5) Total Life Contingent Annuity Reserves	Lines (1) + (2) + (3) + (4)	X †	= <b>\$0</b>

Base Factors are From Longevity Risk Task Force's Spring 2019 report

up to \$250M 1.71%	0.0171
next \$250M 1.08%	0.0108
next \$500M 0.95%	0.0095
over \$1B 0.89%	0.0089

† The tiered calculation is illustrated in the Longevity Risk section of the risk-based capital instructions.  
 ‡ Include only the portion of reserves for products in scope per the instructions

**=MAX(ROUND(IF(D10<250000000,D10\*0.0171,IF(D10<500000000,250000000\*0.0171+(D10-500000000)\*0.0108,IF(D10<1000000000,250000000\*0.0171+250000000\*0.108+(D10-500000000)\*0.0095,250000000\*0.0171+250000000\*0.108+500000000\*0.0095+(D10-1000000000)\*0.0089)),0),0)**

||CALCULATION OF TAX EFFECT FOR LIFE AND FRATERNAL RISK-BASED CAPITAL

		(1)		(2)	
	<u>Insurance Risk</u>				
(133)	Disability Income Premium	LR019 Health Premiums Column (2) Lines (21) through (27)	<u>\$0 X</u>	0.2100	= <u>\$0</u>
(134)	Long-Term Care	LR019 Health Premiums Column (2) Line (28) + LR023 Long-Term Care Column (4) Line (7)	<u>\$0 X</u>	0.2100	= <u>\$0</u>
(135)	Life Insurance C-2 Risk	LR025 Life Insurance Column (2) Line (8)	<u>\$0 X</u>	0.2100	= <u>\$0</u>
(136)	Group Insurance C-2 Risk	LR025 Life Insurance Column (2) Lines (20) and (21)	<u>\$0 X</u>	0.2100	= <u>\$0</u>
(136b)	Longevity C-2 Risk	LR025-A Longevity Risk Column (2) Line (5)	<u>\$0 X</u>	0.2100	= <u>\$0</u>
(137)	Disability and Long-Term Care Health Claim Reserves	LR024 Health Claim Reserves Column (4) Line (9) + Line (15)	<u>\$0 X</u>	0.2100	= <u>\$0</u>
(138)	Premium Stabilization Credit	LR026 Premium Stabilization Reserves Column (2) Line (10)	<u>\$0 X</u>	0.0000	= <u>\$0</u>
(139)	Total C-2 Risk	L(133) + L(134) + L(137) + L(138) + Greatest of [Guardrail Factor * (L(135)+L(136)), Guardrail Factor * L(136b), Square Root of [ (L(135) + L(136)) <sup>2</sup> + L(136b) <sup>2</sup> + 2 * (TBD Correlation Factor) * (L(135) + L(136)) * L(136b) ] ]	<u>\$0</u>		= <u>\$0</u>

Guardrail Factor: 0.0  
Correlation Factor: -0.25

=D5+D6+D11+D13+MAX(SL13\*(D8+D9),SL13\*D10,SQRT((D8+D9)^2+D10^2+2\*SL14\*(D8+D9)\*D10))



**CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL**

(1)

<u>Insurance Risk (C-2)</u>			
(43)	Individual and Industrial Life Insurance	LR025 Life Insurance Column (2) Line (8)	0
(44)	Group and Credit Life Insurance and FEGI/SGLI	LR025 Life Insurance Column (2) Lines (20) and (21)	0
(44b)	Longevity Risk	LR025-A Longevity Risk Column (2) Line (5)	\$0
(45)	Total Health Insurance	LR024 Health Claim Reserves Column (4) Line (18)	\$0
(46)	Premium Stabilization Reserve Credit	LR026 Premium Stabilization Reserves Column (2) Line (10)	\$0
(47)	Total (C-2) - Pre-Tax	L(45) + L(46) + Greatest of [ Guardrail Factor * (L(43)+L(44)), Guardrail Factor * L(44b), Square Root of [ (L(43) + L(44)) <sup>2</sup> + L(44b) <sup>2</sup> + 2 * (TBD Correlation Factor) * (L(43) + L(44)) * L(44b) ] ]	\$0
(48)	(C-2) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (139)	\$0
(49)	Net (C-2) - Post-Tax	Line (47) - Line (48)	\$0

Guardrail Factor 0.0  
Correlation -0.25

$$=D7+D8+MAX(H9*(D4+D5),H9*D6,SQRT((D4+D5)^2+D6^2+2*H10*(D4+D5)*D6))$$

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## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group         | <input type="checkbox"/> Life RBC (E) Working Group    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group     | <input type="checkbox"/> Operational Risk (E) Subgroup |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input checked="" type="checkbox"/> P/C RBC (E) Working Group | <input type="checkbox"/> Longevity Risk (A/E) Subgroup |

<b>DATE:</b> <u>2/28/21</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Eva Yeung</u>	Agenda Item # <u>2021-03-P</u>
<b>TELEPHONE:</b> <u>816-783-8407</u>	Year <u>2021</u>
<b>EMAIL ADDRESS:</b> <u>eyeung@naic.org</u>	<b><u>DISPOSITION</u></b>
<b>ON BEHALF OF:</b> <u>P/C RBC (E) Working Group</u>	<input checked="" type="checkbox"/> ADOPTED <u>4/29/21</u>
<b>NAME:</b> <u>Tom Botsko</u>	<input type="checkbox"/> REJECTED _____
<b>TITLE:</b> <u>Chair</u>	<input type="checkbox"/> DEFERRED TO _____
<b>AFFILIATION:</b> <u>Ohio Department of Insurance</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP
<b>ADDRESS:</b> <u>50 West Town Street, Suite 300</u>	<input checked="" type="checkbox"/> EXPOSED <u>3/15/21</u>
<u>Columbus, OH 43215</u>	<input type="checkbox"/> OTHER (SPECIFY) _____

#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Health RBC Blanks       | <input type="checkbox"/> Property/Casualty RBC Blanks                  | <input type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input checked="" type="checkbox"/> Property/Casualty RBC Instructions | <input type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |  |  |

#### DESCRIPTION OF CHANGE(S)

Adding examples as a guide to portray the intent of the R3 ratings instructions.

#### REASON OR JUSTIFICATION FOR CHANGE \*\*

The proposed instruction changes would provide examples to clarify how the reporting companies should select the designation in the Annual Statement Part 3, Reinsurer Designation Equivalent Rating column if the reporting entities subscribe to one or multiple rating agencies.

#### Additional Staff Comments:

3/15/21 – The PCRBC WG exposed this proposal for a thirty-day public comment period ending Apr. 14.

4/27/21 – The PCRBC WG adopted this proposal with no received comments.

4/29/21 cgb – The Capital Adequacy Task Force adopted the proposal on 4/29/21.

\*\* This section must be completed on all forms.

Revised 2-2019

PR012 - Credit Risk for ReceivablesReinsurance Recoverables

The calculation of the credit risk charge for reinsurance recoverables is detailed in Schedule F Part 3 Columns 28 through 36 of the Property/Casualty Annual Statement. This calculation is performed at the transaction level and those results are then summed to determine the charge. Reinsurance balances receivable on reinsurance ceded to non-affiliated companies (excluding certain pools) and to alien affiliates are subject to the credit risk-based capital charge. The following types of cessions are exempt from this charge:

- Cessions to State Mandated Involuntary Pools and Associations or to Federal Insurance Programs.
- This category includes all federal insurance programs [e.g., National Flood Insurance Program (NFIP), Federal Crop Insurance Corporation (FCIC), etc.], all state mandated residual market mechanisms and the National Council on Compensation Insurance (NCCI).
- Cessions to U.S. Parents, Subsidiaries and Affiliates.

The categories above are automatically excluded from the data that is calculated in Schedule F Part 3 of the Annual Statement.

Since the Annual Statement requires the collectability of reinsurance balances be considered via the reinsurance penalty, the appropriate balances must be offset by any liability that has been established for this purpose. The amount from Page 3, Line 16 should be allocated to the appropriate (re)insurers listed on Schedule F. The total amount recoverable from reinsurers less any applicable reinsurance penalty is multiplied by 120% to stress the recoverable balance. The total of reinsurance payable and/or funds held amounts (not in excess of the stressed recoverable) are applied as offsets to arrive at the stressed net recoverable.

Since there are different reinsurance credit risk factors for collateralized and uncollateralized reinsurance recoverables, the stressed net recoverable should be offset by any available collateral, such as letters of credit, multiple beneficiary trusts, and single beneficiary trusts and other allowable offsets (not in excess of the stressed net recoverable). The collateralized amounts are derived from Schedule F Part 3 Column 32 and the uncollateralized amounts are derived from Column 33.

The risk-based capital for the various credits (including collateral offsets where applicable) taken for reinsurance may not be less than zero even if the amount reported or the amount net of offsets is negative.

The factor for reinsurance recoverables (paid and unpaid less any applicable reinsurance penalty) due from a particular reinsurer is determined based on that reinsurer's financial strength rating assigned on a legal entity basis.

For the purpose of the credit risk-based capital charge, the equivalent rating category assigned will correspond to current financial strength rating received from **one of the** approved rating **agencies** as outlined in the table below. Ratings shall be based on interactive communication between the rating agency and the **reinsurer** and shall not be based solely on publicly available information. If the reinsurer does not have at least one financial strength rating, it should be assigned the "Vulnerable 6 or Unrated" equivalent rating. Amounts recoverable from unrated voluntary pools should be assigned the "Secure 3" equivalent rating.

**For** authorized associations including incorporated and individual unincorporated underwriters or a member thereof (e.g. individual authorized syndicates of Lloyds' of London that are backed by the Central Fund) utilize the lowest financial strength group rating received from an approved rating agency.

For authorized associations, including incorporated and individual unincorporated underwriters or a member thereof (e.g. individual authorized syndicates of Lloyds' of London that are backed by the Central Fund), may utilize the lowest financial strength group rating received from an approved rating agency.

The table below shows the R3 reinsurer equivalent rating categories and corresponding factors for A.M. Best, Standard and Poor's, Moody's and Fitch ratings.

## Reinsurer Designation Equivalent Rating Category and Corresponding Factors—For RBC R3 Credit Risk Charge

Description	Secure 1	Secure 2	Secure 3	Secure 4	Secure 5	Vulnerable 6 or Unrated
<b>A.M. Best</b>	A++	A+	A	A-	B++, B+	B, B-, C++, C+, C, C-, D, E, F
<b>Standard &amp; Poor's</b>	AAA	AA+, AA, AA-	A+, A	A-	BBB+, BBB, BBB-	BB+, BB, BB-, B+, B, B-, CCC, CC, C, D, R
Moody's	Aaa	Aa1, Aa2, Aa3	A1, A2	A3	Baa1, Baa2, Baa3	Ba1, Ba2, Ba3, B1, B2, B3, Caa, Ca, C
Fitch	AAA	AA+, AA, AA-	A+, A	A-	BBB+, BBB, BBB-	BB+, BB, BB-, B+, B, B-, CCC, CC, C, D, R
Collateralized Amounts Factors	3.6%	4.1%	4.8%	5.0%	5.0%	5.0%
Uncollateralized Amounts Factors	3.6%	4.1%	4.8%	5.3%	7.1%	14.0%

Each reporting company should record in Schedule F Part 3, Column 34, the reinsurer designation equivalent financial strength ratings assigned to the (re)insurers listed, where there are balances receivable on reinsurance ceded for the Schedule F categories subject to the credit risk charge on reinsurance recoverables. The resulting credit risk charge for reinsurance recoverables is determined by applying the corresponding factor by reinsurer designation equivalent to the collateralized and uncollateralized balances respectively. These respective charges are derived from Schedule F Part 3, Columns 35 and 36 and Line 9999999 totals are reported on PR012 Lines 1 and 2. **See examples below.**

Miscellaneous Recoverables

There is risk associated with recoverability of amounts from creditors other than reinsurers. In addition to the default risk, there is the risk that the amounts are not accurately estimated. The factor to measure this risk is estimated at 5 percent for Amounts Receivable Relating to Uninsured Accident and Health Plans; Receivables from Parent, Subsidiaries and Affiliates; and Aggregate Write-ins for Other Than Invested Assets. For Interest, Dividends and Real Estate Income Due and Accrued, which for the most part represents interest income due and accrued from bond holdings, the charge is 1 percent, which is equivalent to the charge applicable to unaffiliated NAIC 02 bonds.

**Examples: The following examples are here as a guide to portray the intent of these instructions.**

**These examples assume that all financial strength ratings are from one of the rating agencies listed in the table above and there is interactive communication between the rating agency and the reinsurer unless stated otherwise.**

**Example 1—Reinsurer has only one rating: Assume the Reinsurer XYZ has a financial strength rating of A from A.M. Best. This falls in the Secure 3 category and the reporting company should select this category and corresponding charge.**

**Example 2—Reinsurer has more than one rating: Assume the Reinsurer XYZ has a financial strength rating of “A” from A.M. Best and another rating of “AAA” from Fitch. The reporting company may use either of the ratings provided by A.M. Best or Fitch.**

**Example 3—Reinsurer only has a Public Information Rating: Ratings that include the symbol of “pi” (e.g. Api), which indicates a public information rating, are not allowed to be used. If a reinsurer has only been assigned Public Information ratings, meaning no other financial strength ratings have been assigned to it; then the reporting company must list the reinsurer’s rating as Vulnerable 6 or Unrated.**

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## Capital Adequacy (E) Task Force RBC Proposal Form

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group     | <input type="checkbox"/> Life RBC (E) Working Group    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input type="checkbox"/> P/C RBC (E) Working Group        | <input type="checkbox"/> Longevity Risk (A/E) Subgroup |

<b>DATE:</b> <u>4/27/21</u>	<b><u>FOR NAIC USE ONLY</u></b>
<b>CONTACT PERSON:</b> <u>Eva Yeung</u> <b>TELEPHONE:</b> <u>816-783-8407</u> <b>EMAIL ADDRESS:</b> <u>eyeung@naic.org</u> <b>ON BEHALF OF:</b> <u>P/C RBC (E) Working Group</u> <b>NAME:</b> <u>Tom Botsko</u> <b>TITLE:</b> <u>Chair</u> <b>AFFILIATION:</b> <u>Ohio Department of Insurance</u> <b>ADDRESS:</b> <u>50 West Town Street, Suite 300</u> <u>Columbus, OH 43215</u>	Agenda Item # <u>2021-05-P</u> Year <u>2021</u>  <b style="text-align: center;"><u>DISPOSITION</u></b> <input type="checkbox"/> ADOPTED _____ <input type="checkbox"/> REJECTED _____ <input type="checkbox"/> DEFERRED TO _____ <input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____ <input type="checkbox"/> EXPOSED _____ <input type="checkbox"/> OTHER (SPECIFY) _____

### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Health RBC Blanks       | <input checked="" type="checkbox"/> Property/Casualty RBC Blanks | <input type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input type="checkbox"/> Property/Casualty RBC Instructions      | <input type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |  |  |

### DESCRIPTION OF CHANGE(S)

The proposed change would update the Line 1 Factors for PR017 and PR018.

### REASON OR JUSTIFICATION FOR CHANGE \*\*

The proposed change would provide routine annual update of the industry underwriting factors (premium and reserve) in the PCRBC formula.

### Additional Staff Comments:

The P/C RBC WG exposed this proposal for a 30-day comment period ended by 5/26/21.  
 The P/C RBC WG adopted this proposal on 6/9/21.

\*\* This section must be completed on all forms.

Revised 2-2019

PR017 Line 1 Reserves

Schedule P Line of Business	LOB	Proposed for adoption - 2021 PR017 Line 1	2020 PR017 Line 1	2019 PR017 Line 1	2018 PR017 Line 1	2017 PR017 Line 1	2016 PR017 Line 1	2015 PR017 Line 1	2014 PR017 Line 1	2013 PR017 Line 1	2012 PR017 Line 1	2011 PR017 Line 1	2010 PR017 Line 1	2009 PR017 Line 1	2008 PR017 Line 1	2007 PR017 Line 1
H/F	A	0.998	0.993	0.989	0.989	0.984	0.972	0.962	0.967	0.960	0.949	0.962	0.984	0.983	0.983	0.995
PPA	B	1.025	1.035	1.026	1.022	1.012	1.002	1.002	0.994	0.986	0.991	0.989	0.992	0.998	1.003	1.007
CA	C	1.083	1.078	1.087	1.060	1.034	1.015	0.987	0.979	0.986	0.998	0.992	1.015	1.031	1.045	1.062
WC	D	0.912	0.916	0.955	0.952	0.971	0.971	0.961	0.986	0.980	0.990	0.999	1.005	1.016	1.033	1.051
CMP	E	0.999	1.016	0.992	0.967	0.956	0.942	0.938	0.941	0.927	0.932	0.952	0.962	0.993	1.034	1.037
MM Occurrence	F1	0.874	0.861	0.864	0.871	0.868	0.841	0.966	0.966	0.991	1.072	1.048	1.213	1.251	1.343	1.333
MM Clms Made	F2	0.973	0.940	0.907	0.886	0.854	0.822	0.839	0.808	0.824	0.887	0.925	0.981	1.033	1.083	1.140
SL	G	0.976	0.963	0.938	0.933	0.926	0.919	0.975	0.990	0.954	0.942	0.931	0.998	1.043	1.060	1.108
OL	H	0.964	0.968	0.971	0.966	0.952	0.929	0.923	0.916	0.919	0.914	0.954	0.959	0.963	1.006	1.015
Fidelity / Surety	K	0.915	0.907	0.995	0.996	1.016	1.035	1.016	1.050	1.126	1.194	1.191	1.253	1.247	1.290	1.274
Special Property	I	0.978	0.977	0.972	0.971	0.982	0.973	0.991	0.992	1.035	1.113	1.097	1.144	1.097	1.102	1.102
Auto Physical Damage	J	0.989	0.993	0.996	1.000	1.001	0.995	0.995	1.005	1.054	1.105	1.105	1.155	1.107	1.110	1.106
Other (Credit, A&H)	L	0.965	0.971	0.973	0.976	0.981	0.986	1.041	1.061	1.113	1.138	1.177	1.277	1.262	1.325	1.282
Financial / Mortgage Guaranty	S	0.723	0.682	0.788	0.870	0.820	0.853	1.185	1.444	1.256	1.087	1.276	0.841	0.893	1.483	1.495
Intl	M	1.104	1.162	1.037	0.851	0.855	0.897	1.350	0.742	0.813	0.869	1.015	1.102	1.181	1.175	1.291
Rein. Property & Financial Lines	NP	0.893	0.886	0.872	0.834	0.814	0.814	1.002	0.976	0.934	0.921	0.937	0.965	0.969	1.025	1.048
Rein. Liability	O	0.989	0.985	0.955	0.945	0.914	0.896	0.938	0.905	1.009	1.089	1.169	1.304	1.259	1.314	1.296
PL	R	0.879	0.900	0.913	0.921	0.935	0.937	1.072	1.018	0.981	0.978	1.009	1.063	1.073	1.109	1.112
Warranty	T	1.007	1.013	1.017	1.015	0.989	0.977	0.994	1.040	1.082	1.197	1.268	1.717	1.634	n/a	n/a



PR018 Line 1 Factors

Schedule P Line of Business	LOB	Cat Lines	Proposed for adoption - 2021 PR018 Line 1	2020 PR018 Line 1	2019 PR018 Line 1	2018 PR018 Line 1	2017 PR018 Line 1	2016 PR018 Line 1	2015 PR018 Line 1	2014 PR018 Line 1	2013 PR018 Line 1	2012 PR018 Line 1	2011 PR018 Line 1	2010 PR018 Line 1	2009 PR018 Line 1	2008 PR018 Line 1
H/F	A	*	0.681	0.678	0.681	0.687	0.688	0.701	0.701	0.713	0.725	0.728	0.726	0.736	0.737	0.742
PPA	B		0.795	0.810	0.810	0.806	0.800	0.792	0.786	0.780	0.784	0.792	0.804	0.815	0.821	0.831
CA	C		0.761	0.759	0.737	0.724	0.706	0.689	0.684	0.676	0.668	0.669	0.679	0.705	0.737	0.763
WC	D		0.682	0.705	0.726	0.744	0.751	0.752	0.751	0.749	0.750	0.755	0.766	0.78	0.805	0.83
CMP	E	*	0.673	0.672	0.666	0.664	0.647	0.648	0.655	0.652	0.653	0.644	0.654	0.674	0.695	0.710
MM Occurrence	F1		0.731	0.726	0.730	0.780	0.777	0.767	0.880	0.883	0.874	0.916	0.952	1.031	1.104	1.195
MM Clms Made	F2		0.821	0.797	0.768	0.747	0.722	0.691	0.697	0.680	0.695	0.718	0.771	0.860	0.928	1.003
SL	G	*	0.593	0.603	0.593	0.569	0.567	0.572	0.630	0.645	0.649	0.597	0.599	0.582	0.673	0.709
OL	H		0.635	0.639	0.638	0.633	0.629	0.618	0.616	0.617	0.620	0.637	0.662	0.687	0.714	0.738
Fidelity / Surety	K		0.394	0.384	0.399	0.417	0.430	0.464	0.462	0.473	0.496	0.528	0.555	0.584	0.586	0.583
Special Property	I	*	0.559	0.553	0.554	0.563	0.555	0.559	0.571	0.572	0.574	0.562	0.559	0.565	0.575	0.590
Auto Physical Damage	J		0.726	0.732	0.730	0.732	0.727	0.711	0.703	0.686	0.681	0.683	0.681	0.692	0.697	0.705
Other (Credit, A&H)	L		0.693	0.684	0.682	0.709	0.712	0.699	0.706	0.754	0.778	0.794	0.786	0.691	0.697	0.737
Financial / Mortgage Guaranty	S		0.252	0.513	0.811	1.099	1.175	1.293	1.096	1.242	1.271	1.206	1.142	0.738	0.605	0.805
Intl	M	*	0.769	0.758	0.795	0.584	0.565	0.607	1.150	1.131	1.093	0.931	0.937	0.954	0.956	0.930
Rein. Property & Financial Lines	NP	*	0.558	0.534	0.522	0.486	0.459	0.512	0.723	0.764	0.766	0.757	0.805	0.828	0.924	0.977
Rein. Liability	O	*	0.713	0.708	0.679	0.666	0.609	0.600	0.749	0.748	0.782	0.841	0.915	1.010	1.107	1.165
PL	R		0.617	0.645	0.656	0.671	0.670	0.684	0.715	0.716	0.683	0.697	0.714	0.747	0.780	0.802
Warranty	T		0.681	0.691	0.695	0.732	0.645	0.611	0.799	0.789	0.864	0.862	0.916	0.860	0.800	n/a

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## Capital Adequacy (E) Task Force

**RBC Proposal Form**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force  | <input type="checkbox"/> Health RBC (E) Working Group     | <input type="checkbox"/> Life RBC (E) Working Group    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup    | <input type="checkbox"/> Investment RBC (E) Working Group | <input type="checkbox"/> Operational Risk (E) Subgroup |
| <input type="checkbox"/> C3 Phase II/ AG43 (E/A) Subgroup | <input type="checkbox"/> P/C RBC (E) Working Group        | <input type="checkbox"/> Longevity Risk (A/E) Subgroup |

<p style="text-align: right;"><b>DATE:</b> <u>4/27/21</u></p> <p><b>CONTACT PERSON:</b> <u>Eva Yeung</u></p> <p><b>TELEPHONE:</b> <u>816-783-8407</u></p> <p><b>EMAIL ADDRESS:</b> <u>eyeung@naic.org</u></p> <p><b>ON BEHALF OF:</b> <u>P/C RBC (E) Working Group</u></p> <p><b>NAME:</b> <u>Tom Botsko</u></p> <p><b>TITLE:</b> <u>Chair</u></p> <p><b>AFFILIATION:</b> <u>Ohio Department of Insurance</u></p> <p><b>ADDRESS:</b> <u>50 West Town Street, Suite 300</u> <u>Columbus, OH 43215</u></p>	<p style="text-align: center;"><b><u>FOR NAIC USE ONLY</u></b></p> <p>Agenda Item # <u>2021-08-P</u></p> <p>Year <u>2021</u></p> <p style="text-align: center;"><b><u>DISPOSITION</u></b></p> <p><input type="checkbox"/> ADOPTED _____</p> <p><input type="checkbox"/> REJECTED _____</p> <p><input type="checkbox"/> DEFERRED TO _____</p> <p><input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____</p> <p><input type="checkbox"/> EXPOSED _____</p> <p><input type="checkbox"/> OTHER (SPECIFY) _____</p>
--	---

**IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Health RBC Blanks       | <input checked="" type="checkbox"/> Property/Casualty RBC Blanks       | <input type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Instructions | <input checked="" type="checkbox"/> Property/Casualty RBC Instructions | <input type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> OTHER _____             |  |  |

**DESCRIPTION OF CHANGE(S)**

1) Incorporate 20 NAIC Designation Category Bond Factors; 2) Modify Bond Size Factor formula and 3) Reclassification of Hybrid Securities in PR006, PR011 and PR015. Modify the instructions to incorporate references for the bonds.

**REASON OR JUSTIFICATION FOR CHANGE \*\***

This expansion will provide more robust and accurate results, primarily as it increases the granularity of the formula and reduces the cliffs between the different factors for the different categories.

**Additional Staff Comments:**

The P/C RBC WG exposed this proposal for a 30-day comment period ended by 5/26/21.  
The P/C RBC WG adopted this proposal on 6/9/21.

\*\* This section must be completed on all forms.

Revised 2-2019

**ASSETS**  
**PR006 – PR014**

PR006 - Bonds and Bond Size Factor Adjustment

Basis of General Bond Factors

~~These~~ The bond risk factors for investment grade bonds (NAIC Designation Category 1.A – 2.C) are based on cash flow modeling, ~~using historically adjusted default rates for each bond category. For each of 2,000 trials, annual economic conditions were generated for the 10-year modeling period.~~ Each bond of a 400 bond portfolio was annually tested for default (based on a “roll of the dice”) where the default probability varies by NAIC Designation category and that year’s economic environment. ~~The default probabilities were based on historical data intended to reflect a complete cycle of favorable and unfavorable credit environment. The risk of default was measured over a 5-year time horizon, selected considering the duration of property/casualty assets and liabilities.~~

The factors for NAIC ~~03 through 06~~ Designation Category 3.A to 6 recognize that these non-investment grade bonds are reported at the lower of amortized cost or fair value, marked to market. ~~These bond risk factors are based on the market value fluctuation for each of the NAIC designation category compared to the market value fluctuation of stocks during the 2008-2009 financial crisis.~~

The bond risk factors are selected with consideration of the effect of the bond size factors.

Bond Size Factor

~~The bond factors assume a portfolio of 802 issuers.~~ The size factor reflects ~~additional modeling for different size portfolios that shows~~ the risk increases as the number of bond issuers decreases. ~~Because most insurers’ bond portfolios are considerably smaller than the portfolio used to develop the model bond risk, the basic bond factors understate the true default risk of these assets.~~ The bond size factor adjusts the computed RBC for those bonds that are subject to the size factor to more accurately reflect the risk.

The bond size factor is to be multiplied by the risk-based capital of the bonds subject to the size factor. This calculation produces the *additional* RBC required for a portfolio that has 801 or less than 1,300 bonds in it. Portfolios with 803 or more than 1,300 issuers will receive a discount. The bond size factor was developed as a step factor (as in a tax table) so that the overall factor decreases as the portfolio size increases.

Bonds should be aggregated by issuer (the first six digits of the CUSIP number should be used for aggregation). In determining the total number of issuers, do not count:

- U.S. government bonds that are direct and guaranteed and backed by the full faith and credit of the U.S. government, other U.S. Government Obligations / Full Faith and Credit Exempt Money Market Funds List which receive a zero factor (~~see Definitions of these categories are in the~~ Annual Statement Instructions).
- ~~Bonds in NAIC 01 (highest quality) which are issued by a U.S. government agency but that are not backed by the full faith and credit of the U.S. government. Examples of these bonds are: FNMA and FHLMC collateralized mortgage obligations.~~

The calculation shown below will not appear in the software but will be calculated automatically. However, you must enter the total number of issuers in the appropriate field on the RBC filing software. If you leave this field blank, the program will assume that there are less than 50-10 issuers and will default to the maximum bond size factor adjustment. The calculation to derive the bond size factor is:

		(a)		(b)	
	Source	No of Issuers		Wgtd Issuers	
First <del>5010</del>	Co Records	_____	X	<del>2.57.8</del>	= _____
Next <del>5090</del>	Co Records	_____	X	<del>1.31.75</del>	= _____

Next <del>300</del> 100	Co Records	_____	X	1.0	=	_____
<del>Over 400</del> Next 300	Co Records	_____	X	<del>0.90</del> .8	=	_____
Over 500	Co Records	_____	X	0.75	=	_____
Total	Co Records	_____				_____

Size Factor = Total Weighted Issuers/Total No of Issuers less 1

PR007 - Unaffiliated Preferred ~~and~~ Common Stock ~~and Hybrid Securities~~

Unaffiliated Preferred Stock

Detailed information on unaffiliated preferred stocks ~~and Hybrid Securities are~~ found in Schedule D Part 2 Section 1 ~~and Schedule D Part 1A Section 1~~ of the annual statement, ~~respectively~~. The preferred stocks ~~and hybrid securities~~ must be broken out by NAIC Designation (NAIC 01 through NAIC 06) and these individual groups are to be entered in the appropriate lines of the RBC software. The total amount of unaffiliated preferred stock reported should equal annual statement P2 L2.1 C3 less any affiliated preferred stock in Schedule D-Summary by Country C1 L18. ~~The total amount of hybrid securities reported should equal annual statement Schedule D Part 1A Section 1 C7 L7.7.~~

Unaffiliated Common Stock

~~Unaffiliated common stocks are subdivided into non-government money market funds and all other unaffiliated common stocks. Non-government money market mutual funds are now reported as cash equivalents and will receive the same charge as cash equivalents. Amounts reported as non-government money market funds should reflect only those money market funds not qualifying for Schedule DA treatment. (Refer to the NAIC Annual Statement Instructions.)~~ The factor for other unaffiliated common stock is based on studies that indicate a 10 percent to 12 percent factor is needed to provide capital to cover approximately 95 percent of the greatest losses in common stock value over a one-year future period. The higher factor of 15 percent contained in the formula reflects the increased risk when testing a period in excess of one year. This factor assumes capital losses are unrealized and not subject to favorable tax treatment at the time loss in fair value occurs.

The total of all unaffiliated common stock reported should be equal to the total value of common stock in Schedule D-Summary by Country C1 L25 less the sum of Schedule D-Summary by Country C1 L24 and PR007, Column 1, Line 18.

PR009 - Miscellaneous Assets

Collateral loans and write-ins for invested assets are generally a small proportion of total portfolio value. A factor of 5 percent is consistent with other risk-based capital formulas studied by the working group.

The factor for cash is 0.3%. It is recognized that there is a small risk related to possible insolvency of the bank where cash deposits are held. ~~The 0.3% factor, equivalent to an unaffiliated NAIC 01 bond~~This factor was based on the original unaffiliated NAIC 01 bond risk factor prior to the increased granularity of the NAIC Designation Categories in 2021, and reflects the short-term nature of this risk. The required risk-based capital for cash will not be less than zero, even if the company's cash position is negative.

If the book/adjusted carrying value of Aggregate Write-ins for Invested Assets (Page 2, Line 11, Column 3 of the annual statement) is less than zero, the RBC amount will be zero.

The Short-Term Investments to be included in this section are those short-term investments not reflected elsewhere in the formula. The 0.3% factor is equal to the factor for cash. The amount entered here for short-term bonds should equal the total short-term investments found in Schedule DA Part 1 C7 L839999, ~~less bonds that are contained in Schedule D Part 1A Section 1.~~This amount is subtracted from the total of short-term investments as they are captured with bonds on PR006.

PR011 - Asset Concentration

The purpose of the concentration factor is to reflect the additional risk of high concentrations in single exposures (represented by an issuer of a security or a mortgage borrower, etc.). The concentration factor basically doubles the risk-based capital factor (up to a maximum of 30 percent) of the 10 largest asset exposures excluding various low-risk categories or categories which already have a 30 percent factor. Since the risk-based capital of the assets included in the concentration factor has already been counted once in the basic formula, this factor itself only serves to add an additional risk-based capital requirement on these assets.

Concentrated investments in certain types of assets are not expected to represent an additional risk over and above the general risk of the asset itself. Therefore, prior to determining the 10 largest issuers, you should exclude those assets that are exempt from the asset concentration factor. Asset types that are excluded from the calculation include: NAIC 06 bonds, ~~hybrids~~ and preferred stock, affiliated common stock, affiliated preferred stock, property and equipment, U.S. government guaranteed bonds, NAIC [Designation Category 01.A to 1.G](#) bonds, ~~hybrids, or NAIC 01 unaffiliated~~ preferred stock, ~~any other asset categories with risk based capital factors less than 1 percent~~, and investment companies (mutual funds) and common trust funds that are diversified within the meaning of the Investment Company Act of 1940 [Section 5(b) (1)]. The pro rata share of individual securities within an investment company (mutual fund) or common trust fund are to be included in the determination of concentrated investments, subject to the exclusions identified.

With respect to investment companies (mutual funds) and common trust funds, the reporting company is responsible for maintaining the appropriate documentation as evidence that such is diversified within the meaning of the Investment Company Act and provide this information upon request of the commissioner, director or superintendent of the department of insurance. The reporting company is also responsible for maintaining a listing of the individual securities and corresponding book/adjusted carrying values making up its investment companies (mutual funds) and common trust funds portfolio, in order to determine whether a concentration charge is necessary. This information should be provided to the commissioner, director or superintendent upon request.

The assets that ARE INCLUDED in the calculation are divided into two categories – Fixed Income Assets and Equity Assets. The following asset types should be aggregated to determine the 10 largest issuers:

## FIXED INCOME ASSETS

~~Bonds –NAIC 02~~[Designation Category 2.A](#)  
[Bonds – NAIC Designation Category 2.B](#)  
[Bonds – NAIC Designation Category 2.C](#)  
 Bonds –NAIC [Designation Category 03.A](#)  
[Bonds –NAIC Designation Category 3.B](#)  
[Bonds –NAIC Designation Category 3.C](#)  
 Bonds –NAIC [Designation Category 04.A](#)  
[Bonds –NAIC Designation Category 4.B](#)  
[Bonds –NAIC Designation Category 4.C](#)  
 Bonds –NAIC [Designation Category 05.A](#)  
[Bonds –NAIC Designation Category 5.B](#)  
[Bonds –NAIC Designation Category 5.C](#)  
 Collateral Loans  
 Mortgage Loans  
 Working Capital Finance Investments – NAIC 02  
 Federal Guaranteed Low Income Housing Tax Credits  
 Federal Non-Guaranteed Low Income Housing Tax Credits  
 State Guaranteed Low Income Housing Tax Credits  
 State Non-Guaranteed Low Income Housing Tax Credits  
 All Other Low Income Housing Tax Credits

## EQUITY ASSETS

Unaffiliated Preferred Stock –NAIC 02  
 Unaffiliated Preferred Stock –NAIC 03  
 Unaffiliated Preferred Stock –NAIC 04  
 Unaffiliated Preferred Stock –NAIC 05  
~~Hybrid Securities –NAIC 02~~  
~~Hybrid Securities –NAIC 03~~  
~~Hybrid Securities –NAIC 04~~  
~~Hybrid Securities –NAIC 05~~  
 Unaffiliated Common Stock  
 Investment Real Estate  
 Encumbrances on Inv. Real Estate  
 Schedule BA Assets (excluding Collateral Loans)  
 Receivable for Securities  
 Aggr Write-ins for Invested Assets  
 Derivatives

The name of each of the largest 10 issuers is entered at the top of the table and the appropriate statement amounts are entered in C(2) Ls (01) through (20) for fixed income assets and C(2), Ls (22) through (~~3632~~) for equity assets. Aggregate all similar asset types before entering the amount in C(2). For instance, if you own five separate \$1,000,000 NAIC ~~03-3.A~~ bonds from Issuer #1, enter \$5,000,000 in C(2)L(~~0204~~) – NAIC ~~03-3.A~~ Unaffiliated Bonds.

**OFF-BALANCE SHEET COLLATERAL AND SCHEDULE DL, PART 1 ASSETS**  
**PR015**

Security lending programs are required to maintain collateral. Some entities post the collateral supporting security lending programs on their financial statements and incur the related risk charges on those assets. Other entities have collateral that is not recorded on their financial statements. While not recorded on the financial statements of the company, such collateral has risks that are not otherwise captured in the RBC formula.

The collateral in these accounts is maintained by a third party (typically a bank or other agent). The collateral agent maintains on behalf of the company detail asset listings of the collateral assets, and this data is the source for preparation of this schedule. The company should maintain such asset listings, at a minimum CUSIP, market value, book/carrying value, and maturity date.

The asset risk charges are derived from existing RBC factors for bonds, preferred and common stocks, other invested assets, and invested assets not otherwise classified (aggregate write-ins).

*Specific Instructions for Application of the Formula*

Column (2) – Schedule DL, Part 1 Book/Adjusted Carrying Value comes from Annual Statement Schedule DL, Part 1, Column (6) Securities Lending Collateral Assets reported On-Balance Sheet (Assets Page, Line 10).

Off-balance sheet collateral included in General Interrogatories Part 1, Lines 24.~~05-04~~ and 24.~~06-05~~ of the Annual Statement should agree with Line (40), Column (1).

Lines (1) through (26) – Bonds

Bond factors described on PR006 – Bonds and Bond Size Factor Adjustment

Line (28) through (33) – Preferred Stocks

Preferred stock factors described on PR007 – Unaffiliated Preferred and Common Stock

Lines (35) – Common Stock

Common stock factors described on PR007 – Unaffiliated Preferred and Common Stock

Line (36) – Real Estate and Schedule BA - Other Invested Assets

Real Estate and other invested asset factors described on PR008 – Other Long-Term Assets

Line (37) – Other Invested Assets

Other invested assets factors described on PR009 – Miscellaneous Assets

Line (38) – Mortgage Loans on Real Estate

Mortgage Loans on Real Estate factor described on PR009 – Miscellaneous Assets

Line (39) – Cash, Cash Equivalents, ~~Non-Government Money Market Fund~~ and Short-Term Investments

Cash, Cash Equivalents, ~~Non-Government Money Market Fund~~ and Short-Term Investments factors described on PR007 – Unaffiliated Preferred, Common Stock and Hybrid Securities and PR009 – Miscellaneous Assets



BONDS PR006

		(1)	(2)	(3)	(4)	(5)	
	<u>Annual Statement Source</u>	Long-Term Bonds Schedule D, Part 1 Book/Adjusted Carrying Value L2 thru 26 = Sch D Pt1F	Short-Term Investments Schedule DA, Part 1 Book/Adjusted Carrying Value L2 thru 26 = Sch DA Pt1F	Cash Equivalents Schedule E, Part 2 Book/Adjusted Carrying Value L2 thr 26 = Sch E Pt2F	Subtotal C(1) + C(2) + C(3)	RBC Requirement	
					Factor		
(1)	NAIC 1.A - U.S. Government Full Faith and Credit, Other U.S. Government Obligations, and NAIC U.S. Government Money Market Fund List (Refer to A/S Instructions)	C(1)=Sch D, Pt 1, C11 L0599999 C(2)=Sch DA, Pt 1, C7 L0599999 C(3)=Sch E, Pt 2, C7 L0599999 + L8599999	0	0	0	0.000	0
(2)	NAIC Designation Category 1.A	Footnote Amt 1 L000001A- L(1)	0	0	0	0.002	0
(3)	NAIC Designation Category 1.B	Footnote Amt 2 L000001A	0	0	0	0.004	0
(4)	NAIC Designation Category 1.C	Footnote Amt 3 L000001A	0	0	0	0.006	0
(5)	NAIC Designation Category 1.D	Footnote Amt 4 L000001A	0	0	0	0.008	0
(6)	NAIC Designation Category 1.E	Footnote Amt 5 L000001A	0	0	0	0.010	0
(7)	NAIC Designation Category 1.F	Footnote Amt 6 L000001A	0	0	0	0.013	0
(8)	NAIC Designation Category 1.G	Footnote Amt 7 L000001A	0	0	0	0.015	0
(9)	Total NAIC 01 Bonds	Sum of Ls (1) through (8)	0	0	0		0
(10)	NAIC Designation Category 2.A	Footnote Amt 1 L000001B	0	0	0	0.018	0
(11)	NAIC Designation Category 2.B	Footnote Amt 2 L000001B	0	0	0	0.021	0
(12)	NAIC Designation Category 2.C	Footnote Amt 3 L000001B	0	0	0	0.025	0
(13)	Total NAIC 02 Bonds	Sum of Ls (10) through (12)	0	0	0		0
(14)	NAIC Designation Category 3.A	Footnote Amt 1 L000001C	0	0	0	0.055	0
(15)	NAIC Designation Category 3.B	Footnote Amt 2 L000001C	0	0	0	0.060	0
(16)	NAIC Designation Category 3.C	Footnote Amt 3 L000001C	0	0	0	0.066	0
(17)	Total NAIC 03 Bonds	Sum of Ls (14) through (16)	0	0	0		0
(18)	NAIC Designation Category 4.A	Footnote Amt 1 L000001D	0	0	0	0.071	0
(19)	NAIC Designation Category 4.B	Footnote Amt 2 L000001D	0	0	0	0.077	0
(20)	NAIC Designation Category 4.C	Footnote Amt 3 L000001D	0	0	0	0.087	0
(21)	Total NAIC 04 Bonds	Sum of Ls (18) through (20)	0	0	0		0
(22)	NAIC Designation Category 5.A	Footnote Amt 1 L000001E	0	0	0	0.098	0
(23)	NAIC Designation Category 5.B	Footnote Amt 2 L000001E	0	0	0	0.109	0
(24)	NAIC Designation Category 5.C	Footnote Amt 3 L000001E	0	0	0	0.120	0
(25)	Total NAIC 05 Bonds	Sum of Ls (22) through (24)	0	0	0		0
(26)	Total NAIC 06 Bonds	Footnote Amt 1 L000001F	0	0	0	0.300	0
(27)	Subtotal - Bonds Subject to Bond Size Factor	L(9) - L(1) + L(13) + L(17) + L(21) + L(25) + L(26)	0	0	0		0
(28)	Number of Issuers		0	0	0		
(29)	Bond Size Factor						6.800
(30)	Bond Size Factor RBC	C(5)L(27) x C(5)L(29)					0
(31)	Total Bonds RBC	L(27) + L(30)					0

Denotes items that must be vendor linked.  
 Denotes items that must be manually entered on the filing software.

**UNAFFILIATED PREFERRED AND COMMON STOCK AND HYBRID SECURITIES PR007**

	Annual Statement Source	(1) Book/Adjusted Carrying Value	Factor	(2) RBC Requirement
Unaffiliated Preferred Stock				
(1) NAIC 01 Preferred Stock	Sch D Pt 2 Sn 1	0	0.003	0
(2) NAIC 02 Preferred Stock	Sch D Pt 2 Sn 1	0	0.010	0
(3) NAIC 03 Preferred Stock	Sch D Pt 2 Sn 1	0	0.020	0
(4) NAIC 04 Preferred Stock	Sch D Pt 2 Sn 1	0	0.045	0
(5) NAIC 05 Preferred Stock	Sch D Pt 2 Sn 1	0	0.100	0
(6) NAIC 06 Preferred Stock	Sch D Pt 2 Sn 1	0	0.300	0
(7) <b>TOTAL</b> - UNAFFILIATED PREFERRED STOCK (should equal P2 L2.1 C3 less Sch D-Sum C1 L18)	Sum of Ls(1) through (6)	0		0
Unaffiliated Common Stock				
(8) Total Common Stock	Sch D - Summary C1 L25	0		
(9) Affiliated Common Stock	Sch D - Summary C1 L24	0		
(10) Non-Admitted Unaffiliated Common Stock	P2 C2 L2.2 - Sch D Pt6 Sn1 C10 L1899999	0		
(11) Admitted Unaffiliated Common Stock	<b>L(8) - L(9) - L(10)</b>	0	0.150	0
(12) Fair Value Excess Affiliated Common Stock	PR003 C(14) L(9999999)			0
(13) Total Unaffiliated Common Stock	<b>L(11) + L(12)</b>	0		0

MISCELLANEOUS ASSETS PR009

	Annual Statement Source	(1) Book/Adjusted Carrying Value	Factor	(2) RBC Requirement
(1) Receivable for Securities	P2C3L9	0	0.025	0
(2) Aggregate W/I for Invest Assets	P2C3 L11	0	0.050	0
(3) Cash	P2 L5, inside amt 1	0	0.003	0
(4) Cash Equivalents	P2 L5, inside amt 2	0		
(5) <b>Less: Cash Equivalents, Total Bonds</b>	Sch E Pt 2 C7 L8399999	0		
(6) <b>Less: Exempt Money Market Mutual Funds as Identified by SVO</b>	Sch E Pt 2 C7 L8599999	0		
(7) Net Cash Equivalents	L(4)-L(5)-L(6)	0	0.003	0
(8) Short-Term Investments	P2 L5, inside amt 3	0		
(9) <b>Short-Term Bonds</b>	Sch DA Pt 1 C7 L8399999	0		
(10) Total Other Short-Term Investments	L(8)-L(9)	0	0.003	0
(11) Collateral Loans	Sch BA Pt1 C12 L2999999+3099999	0		
(12) Less: Non-Admitted Collateral Loans	P2 L8 C2 in part	0		
(13) Net Admitted Collateral Loans	L(11) - L(12)	0	0.050	0
(14) Derivatives	P2C3 L7	0	0.050	0
(15) Total Miscellaneous Assets	L(1)+L(2)+L(3)+L(7)+L(10)+L(13)+L(14)	0		0

Denotes items that must be manually entered on the filing software.

**ASSET CONCENTRATION PR011**

	(1)	(2)	(3)
ISSUER #1		<u>Book/Adjusted Carrying Value</u>	<u>Factor</u>
			<u>Additional RBC</u>
(1) NAIC Designation Category 2.A Bonds		0	0.0180
(2) NAIC Designation Category 2.B Bonds		0	0.0210
(3) NAIC Designation Category 2.C Bonds		0	0.0250
(4) NAIC Designation Category 3.A Bonds		0	0.0550
(5) NAIC Designation Category 3.B Bonds		0	0.0600
(6) NAIC Designation Category 3.C Bonds		0	0.0660
(7) NAIC Designation Category 4.A Bonds		0	0.0710
(8) NAIC Designation Category 4.B Bonds		0	0.0770
(9) NAIC Designation Category 4.C Bonds		0	0.0870
(10) NAIC Designation Category 5.A Bonds		0	0.0980
(11) NAIC Designation Category 5.B Bonds		0	0.1090
(12) NAIC Designation Category 5.C Bonds		0	0.1200
(13) Collateral Loans		0	0.0500
(14) Mortgage Loans		0	0.0500
(15) NAIC 02 Working Capital Finance Investments		0	0.0125
(16) Federal Guaranteed Low Income Housing Tax Credits		0	0.0014
(17) Federal Non-Guaranteed Low Income Housing Tax Credits		0	0.0260
(18) State Guaranteed Low Income Housing Tax Credits		0	0.0014
(19) State Non-Guaranteed Low Income Housing Tax Credits		0	0.0260
(20) All Other Low Income Housing Tax Credits		0	0.1500
(21) SUBTOTAL - FIXED INCOME		0	0
(22) NAIC 02 Unaffiliated Preferred Stock		0	0.0100
(23) NAIC 03 Unaffiliated Preferred Stock		0	0.0200
(24) NAIC 04 Unaffiliated Preferred Stock		0	0.0450
(25) NAIC 05 Unaffiliated Preferred Stock		0	0.1000
(26) Property Held For Production of Income or For Sale Excluding Home Office		0	0.1000
(27) Property Held For Production of Income or For Sale Encumbrances Excluding Home Office		0	0.1000
(28) Schedule BA Assets		0	0.1000
(29) Receivable for Securities		0	0.0250
(30) Aggregate Write-Ins for Invested Assets		0	0.0500
(31) Derivatives		0	0.0500
(32) Unaffiliated Common Stock		0	0.1500
(33) SUBTOTAL - EQUITY		0	0
(34) TOTAL - ISSUER #1 (L21+L33)		0	0

 Denotes items that must be manually entered on the filing software.

OFF-BALANCE SHEET COLLATERAL AND SCHEDULE DL, PART 1 ASSETS PR015

Asset Category	Annual Statement Source	(1) Off-Balance Sheet Collateral Book/Adjusted Carrying Value	(2) Schedule DL, Part 1 Book/Adjusted Carrying Value	(3) Subtotal	(4) Factor	RBC Requirement
Fixed Income Assets						
Bonds						
(1) NAIC 1.A - U.S. Government Full Faith and Credit, Other U.S. Government Obligations, and NAIC U.S. Government Money Market Fund List (Refer to A/S Instructions)	Company Records	0	0	0	0.000	0
(2) NAIC Designation Category 1.A	Company Records	0	0	0	0.002	0
(3) NAIC Designation Category 1.B	Company Records	0	0	0	0.004	0
(4) NAIC Designation Category 1.C	Company Records	0	0	0	0.006	0
(5) NAIC Designation Category 1.D	Company Records	0	0	0	0.008	0
(6) NAIC Designation Category 1.E	Company Records	0	0	0	0.010	0
(7) NAIC Designation Category 1.F	Company Records	0	0	0	0.013	0
(8) NAIC Designation Category 1.G	Company Records	0	0	0	0.015	0
(9) Total NAIC 01 Bonds	Sum of Ls (1) through (8)	0	0	0		0
(10) NAIC Designation Category 2.A	Company Records	0	0	0	0.018	0
(11) NAIC Designation Category 2.B	Company Records	0	0	0	0.021	0
(12) NAIC Designation Category 2.C	Company Records	0	0	0	0.025	0
(13) Total NAIC 02 Bonds	Sum of Ls (10) through (12)	0	0	0		0
(14) NAIC Designation Category 3.A	Company Records	0	0	0	0.055	0
(15) NAIC Designation Category 3.B	Company Records	0	0	0	0.060	0
(16) NAIC Designation Category 3.C	Company Records	0	0	0	0.066	0
(17) Total NAIC 03 Bonds	Sum of Ls (14) through (16)	0	0	0		0
(18) NAIC Designation Category 4.A	Company Records	0	0	0	0.071	0
(19) NAIC Designation Category 4.B	Company Records	0	0	0	0.077	0
(20) NAIC Designation Category 4.C	Company Records	0	0	0	0.087	0
(21) Total NAIC 04 Bonds	Sum of Ls (18) through (20)	0	0	0		0
(22) NAIC Designation Category 5.A	Company Records	0	0	0	0.098	0
(23) NAIC Designation Category 5.B	Company Records	0	0	0	0.109	0
(24) NAIC Designation Category 5.C	Company Records	0	0	0	0.120	0
(25) Total NAIC 05 Bonds	Sum of Ls (22) through (24)	0	0	0		0
(26) Total NAIC 06 Bonds	Company Records	0	0	0	0.300	0
(27) Total Bonds	L(9) + (13) + (17) + (21) + (25) + (26)	0	0	0		0
Equity Assets						
Preferred Stock - Unaffiliated						
(28) NAIC 01 Unaffiliated Preferred Stock	Company Records	0	0	0	0.003	0
(29) NAIC 02 Unaffiliated Preferred Stock	Company Records	0	0	0	0.010	0
(30) NAIC 03 Unaffiliated Preferred Stock	Company Records	0	0	0	0.020	0
(31) NAIC 04 Unaffiliated Preferred Stock	Company Records	0	0	0	0.045	0
(32) NAIC 05 Unaffiliated Preferred Stock	Company Records	0	0	0	0.100	0
(33) NAIC 06 Unaffiliated Preferred Stock	Company Records	0	0	0	0.300	0
(34) Total Unaffiliated Preferred Stock	Sum of Ls (28) through (33)	0	0	0		0
(35) Unaffiliated Common Stock	Company Records	0	0	0	0.150	0
(36) Real Estate and Schedule BA - Other Invested Assets	Company Records	0	0	0	0.200	0
(37) Other Invested Assets	Company Records	0	0	0	0.200	0
(38) Mortgage Loans on Real Estate	Company Records	0	0	0	0.050	0
(39) Cash, Cash Equivalents and Short-Term Investments (Not reported as Bonds above)	Company Records	0	0	0	0.003	0
(40) Total	L(27)+L(34)+L(35)+L(36)+L(37)+L(38)+L(39)	0	0	0		0

Denotes items that must be manually entered on the filing software.

**CALCULATION OF TOTAL RISK-BASED CAPITAL AFTER COVARIANCE PR030 R0-R1**

			(1)
R0 –Subsidiary Insurance Companies and Misc. Other Amounts		PRBC O&I Reference	RBC Amount
(1)	Affiliated US P&C Insurers - Directly Owned	PR004 L(1)C(4)	0
(2)	Affiliated US P&C Insurers - Indirectly Owned	PR004 L(4)C(4)	0
(3)	Affiliated US Life Insurers - Directly Owned	PR004 L(2)C(4)	0
(4)	Affiliated US Life Insurers - Indirectly Owned	PR004 L(5)C(4)	0
(5)	Affiliated US Health Insurer - Directly Owned	PR004 L(3)C(4)	0
(6)	Affiliated US Health Insurer - Indirectly Owned	PR004 L(6)C(4)	0
(7)	Affiliated Alien Insurers - Directly Owned	PR004 L(8)C(4)	0
(8)	Affiliated Alien Insurers - Indirectly Owned	PR004 L(9)C(4)	0
(9)	Misc Off-Balance Sheet - Non-Controlled Assets	PR014 L(15) C(3)	0
(10)	Misc Off-Balance Sheet - Guarantees for Affiliates	PR014 L(16) C(3)	0
(11)	Misc Off-Balance Sheet - Contingent Liabilities	PR014 L(17) C(3)	0
(12)	Misc Off-Balance Sheet - SSAP No.101 Par. 11A DTA	PR014 L(19) C(3)	0
(13)	Misc Off-Balance Sheet - SSAP No.101 Par. 11B DTA	PR014 L(20) C(3)	0
(14)	Total R0	L(1)+L(2)+L(3)+L(4)+L(5)+L(6)+L(7)+L(8)+L(9)+L(10)+L(11)+L(12)+L(13)	0
<b>R1 - Asset Risk - Fixed Income</b>			
(15)	Bonds Subject to Size Factor	PR006 L(27)C(5)	0
(16)	Bond Size Factor RBC	PR006 L(30)C(5)	0
(17)	Off-balance Sheet Collateral & Sch DL, PT1 - Total Bonds	PR015 L(27)C(4)	0
(18)	Off-balance Sheet Collateral & Sch DL, PT1 - Cash, Cash Equi, non-govt MMF & S.T. Invest and Mort Loans on Real Est.	PR015 L(38)+(39)C(4)	0
(19)	Other Long- Term Assets - Mortgage Loans, LIHTC & WCFI	PR008 L(10)+L(13)+L(14)+L(15)+L(16)+L(17)+L(20)+L(21)C(2)	0
(20)	Misc Assets - Collateral Loans	PR009 L(13)C(2)	0
(21)	Misc Assets - Cash	PR009 L(3)C(2)	0
(22)	Misc Assets - Cash Equivalents	PR009 L(7)C(2)	0
(23)	Misc Assets - Other Short-Term Investments	PR009 L(10)C(2)	0
(24)	Replication -Synthetic Asset: One Half	PR010 L(9999999)C(7)	0
(25)	Asset Concentration RBC - Fixed Income	PR011 L(21)C(3) Grand Total Page	0
(26)	Total R1	L(15)+L(16)+L(17)+L(18)+L(19)+L(20)+L(21)+L(22)+L(23)+L(24)+L(25)	0

**CALCULATION OF TOTAL RISK-BASED CAPITAL AFTER COVARIANCE PR031 R2-R3**

R2 - Asset Risk - Equity		PRBC O&I Reference	RBC Amount
(27)	Common - Affiliate Investment Subsidiary	PR004 L(7)C(2)	0
(28)	Common - Affiliate Hold. Company. in excess of Ins. Subs.	PR004 L(10)C(2)	0
(29)	Common - Investment in Parent	PR004 L(11)C(2)	0
(30)	Common - Aff'd US P&C Not Subj to RBC	PR004 L(12)C(2)	0
(31)	Common - Affil US Life Not Subj to RBC	PR004 L(13)C(2)	0
(32)	Common - Affil US Health Insurer Not Subj to RBC	PR004 L(14)C(2)	0
(33)	Common - Aff'd Non-insurer	PR004 L(15)C(2)	0
(34)	Preferred - Aff'd Invest Sub	PR004 L(7)C(3)	0
(35)	Preferred - Aff'd Hold. Co. in excess of Ins. Subs.	PR004 L(10)C(3)	0
(36)	Preferred - Investment in Parent	PR004 L(11)C(3)	0
(37)	Preferred - Affil US P&C Not Subj to RBC	PR004 L(12)C(3)	0
(38)	Preferred - Affil US Life Not Subj to RBC	PR004 L(13)C(3)	0
(39)	Preferred - Affil US Health Insurer Not Subj to RBC	PR004 L(14)C(3)	0
(40)	Preferred - Affil Non-insurer	PR004 L(15)C(3)	0
(41)	Unaffiliated Preferred Stock	PR007 L(7)C(2)+PR015 L(34)C(4)	0
(42)	Unaffiliated Common Stock	PR007 L(21)C(2)+PR015 L(35)C(4)	0
(43)	Other Long -Term Assets - Real Estate	PR008 L(7)C(2)	0
(44)	Other Long-Term Assets - Schedule BA Assets	PR008 L(19)C(2)+PR015 L(36)+L(37)C(4)	0
(45)	Misc Assets - Receivable for Securities	PR009 L(1)C(2)	0
(46)	Misc Assets - Aggregate Write-ins for Invested Assets	PR009 L(2)C(2)	0
(47)	Misc Assets - Derivatives	PR009 L(14)C(2)	0
(48)	Replication - Synthetic Asset: One Half	PR010 L(9999999)(7)	0
(49)	Asset Concentration RBC - Equity	PR011 L(34)C(3) Grand Total Page	0
(50)	Total R2	<b>L(27)+L(28)+L(29)+L(30)+L(31)+L(32)+L(33)+L(34) +L(35)+L(36)+L(37)+L(38)+L(39)+L(40)+L(41)+L(42) +L(43)+L(44)+L(45)+L(46)+L(47)+L(48)+L(49)</b>	0
R3 - Asset Risk - Credit			
(51)	Other Credit RBC	PR012 L(8)-L(1)-L(2)C(2)	0
(52)	One half of Rein Recoverables	0.5 x (PR012 L(1)+L(2)C(2))	0
(53)	Other half of Rein Recoverables	<b>If R4 L(57)&gt;(R3 L(51) + R3 L(52)), 0, otherwise, R3 L(52)</b>	0
(54)	Health Credit Risk	PR013 L(12)C(2)	0
(55)	Total R3	<b>L(51) + L(52) + L(53) + L(54)</b>	0

## CALCULATION OF TOTAL RISK-BASED CAPITAL AFTER COVARIANCE PR032 R4-Rcat

(1)

R4 - Underwriting Risk - Reserves		PRBC O&I Reference	RBC Amount
(56)	One half of Reinsurance RBC	If R4 L(57)>(R3 L(51) + R3 L(52)), R3 L(52), otherwise, 0	0
(57)	Total Adjusted Unpaid Loss/Expense Reserve RBC	PR0017 L(15)C(20)	0
(58)	Excessive Premium Growth - Loss/Expense Reserve	PR016 L(13) C(8)	0
(59)	A&H Claims Reserves Adjusted for LCF	PR024 L(5) C(2) + PR023 L(6) C(4)	0
(60)	Total R4	L(56)+L(57)+L(58)+L(59)	0
<b>R5 - Underwriting Risk - Net Written Premium</b>			
(61)	Total Adjusted NWP RBC	PR018 L(15)C(20)	0
(62)	Excessive Premium Growth - Written Premiums Charge	PR016 L(14)C(8)	0
(63)	Total Net Health Premium RBC	PR022 L(21)C(2)	0
(64)	Health Stabilization Reserves	PR025 L(8)C(2) + PR023 L(3) C(2)	0
(65)	Total R5	L(61)+L(62)+L(63)+L(64)	0
<b>Rcat- Catastrophe Risk</b>			
(66)	Total Rcat	PR027 L(3) C(1)	0
(67)	Total RBC After Covariance Before Basic Operational Risk = $R0 + \text{SQRT}(R1^2 + R2^2 + R3^2 + R4^2 + R5^2 + Rcat^2)$		0
(68)	Basic Operational Risk = $0.030 \times L(67)$		0
(69)	C-4a of U.S. Life Insurance Subsidiaries (from Company records)		0
(70)	Net Basic Operational Risk = Line (68) - Line (69) (Not less than zero)		0
(71)	Total RBC After Covariance including Basic Operational Risk = L(67)+ L(70)		0
(72)	Authorized Control Level RBC including Basic Operational Risk = $.5 \times L(71)$		0