Capital Adequacy (E) Task Force

RBC Proposal Form

[ ] Capital Adequacy (E) Task Force	[ ] Health RBC (E) Working Group	[X] Life RBC (E) Working Group
[ ] Catastrophe Risk (E) Subgroup	[ ] Investment RBC (E) Working Group	[ ] Operational Risk (E) Subgroup
[ ] C3 Phase II/ AG43 (E/A) Subgroup	[ ] P/C RBC (E) Working Group	[ ] Longevity Risk (A/E) Subgroup

	DATE: 4/22/21	**FOR NAIC USE ONLY**
CONTACT PERSON:	**Dave Fleming**	Agenda Item # 2021-11-L
TELEPHONE:	**816-783-8121**	Year 2021
EMAIL ADDRESS:	**dfleming@naic.org**	**DISPOSITION**
ON BEHALF OF:	**Life Risk-Based Capital (E) Working Group**	[**X**] ADOPTED **6/30/21**
NAME:	**Philip Barlow, Chair**	[ ] REJECTED
TITLE:	**Associate Commissioner of Insurance**	[ ] DEFERRED TO
AFFILIATION:	**District of Columbia**	[ ] REFERRED TO OTHER NAIC GROUP
ADDRESS:	**1050 First Street, NE Suite 801**	[ ] EXPOSED
	Washington, DC 20002	[ ] OTHER (SPECIFY)

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

[ ] Health RBC Blanks	[ ] Property/Casualty RBC Blanks	[x] Life and Fraternal RBC Instructions
[ ] Health RBC Instructions	[ ] Property/Casualty RBC Instructions	[x] Life and Fraternal RBC Blanks
[ ] 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)
- 6/30/21 (jdb) Factors adopted by the Task Force.

**** This section must be completed on all forms.** **Revised 2-2019**

Company Name | Confidential when Completed | NAIC Company Code

BONDS

	SVO Bond Designation Category	Annual Statement Source	(1) Book / Adjusted Carrying Value		Factor		(2) RBC Requirement
	Long Term Bonds						
(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)

	Short Term Bonds						
(9)	Exempt Obligations	AVR Default Component Column 1 Line 18		X	0.00000	=	
(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 (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))	Sum of Lines (9) + (10.8) + (11.4) + (12.4) + (13.4) + (14.4) + (15)					
(17)	Total Long-Term and Short-Term Bonds (pre-MODCO/Funds Withheld)	Line (8) + (16)					
(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 (including MODCO/FundsWithheld and Credit for Hedging adjustments.)	Lines (17) - (18) - (19) + (20)					
(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) Asset Type	(2) Book / Adjusted Carrying Value		(3) Factor		(4) Additional RBC	(5) Adjustment/ Subsidiary RBC	(6) 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.

ASSET CONCENTRATION FACTOR (CONTINUED)

	(1) Asset Type	(2) Book / Adjusted Carrying Value		(3) Factor		(4) Additional RBC	(5) Adjustment/ Subsidiary RBC	(6) 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.

Company Name | Confidential when Completed | NAIC Company Code

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	
Bonds	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 **
(0100001)														
(0100002)														
(0100003)														
(0100004)														
(0100005)														
(0100006)														
(0100007)														
(0100008)														
(0100009)														
(0100010)														
(0100011)														
(0100012)														
(0100013)														
(0100014)														
(0100015)														
(0100016)														
(0100017)														
(0100018)														
(0100019)														
(0100020)														
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(0100023)														
(0100024)														
(0100025)														
(0100026)														
(0100027)														
(0100028)														
(0100029)														
(0100030)														
(0199999)	Subtotal - NAIC 1 Through 5 Bonds		xxxxx	xxxxx	Subtotal	xxxxx			xxxxx	xxxxx	xxxxx			
(0299999)	Subtotal - NAIC 6 Bonds		xxxxx	xxxxx	Subtotal	xxxxx			xxxxx	xxxxx	xxxxx			
(0399999)	Total		xxxxx	xxxxx	Total	xxxxx			xxxxx	xxxxx	xxxxx			

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)

		Annual Statement Source	(1) Book / Adjusted Carrying Value		2.00000 Factor		(3) RBC Requirement
	Fixed Income - Bonds						
(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)					
	Fixed Income - Preferred Stock						
(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

		Source	(1) RBC Amount		Tax Factor		(2) RBC Tax Effect	
	ASSET RISKS							
	Bonds							
(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**	=		
	Mortgages							
	In Good Standing							
(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	=		
	90 Days Overdue							
(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	=		
	In Process of Foreclosure							
(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)

		Source	(1) RBC Amount		Tax Factor		(2) RBC Tax Effect	
(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	=		
	Preferred Stock							
(038)	Unaffiliated Preferred StockNAIC 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 StockNAIC 3	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (3)		X	0.1575	=		

		+ LR018 Off-Balance Sheet Collateral Column (3) Line (11)						
(041)	Unaffiliated Preferred Stock NAIC 4	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (4) + LR018 Off-Balance Sheet Collateral Column (3) Line (12)		X	0.1575	=		
(042)	Unaffiliated Preferred Stock NAIC 5	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (5) + LR018 Off-Balance Sheet Collateral Column (3) Line (13)		X	0.1575	=		
(043)	Unaffiliated Preferred Stock NAIC 6	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (6) + LR018 Off-Balance Sheet Collateral Column (3) Line (14)		X	0.2100	=		
(044)	Preferred Stock Reduction-Reinsurance	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	=		

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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)

		Source	(1) RBC Amount		Tax Factor		(2) RBC Tax Effect	
(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	=		

† 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)

		Source	(1) RBC Amount		Tax Factor		(2) RBC Tax Effect	
(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)						
	C-0 Affiliated Common Stock							
(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)						
	Common Stock							
(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)						
	Insurance Risk							
(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)

	Source	(1) RBC Amount	Tax Factor	(2) RBC Tax Effect

(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))2 + L(136b)2 + 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 ~~2.5~~2.40 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.)

Line (25)	Source	(a) Number of Issuers				(b) Weighted Issuers
First **50**	Company Records	______	X	**2.40**	=	______
Next **50**	Company Records	______	X	**1.53**	=	______
Next **100**	Company Records	______	X	**0.85**	=	______
Next 300	**Company Records**	______	**XX**	**0.8585**	**==**	______
Over **500**	Company Records	______	**X**	**0.82**	**=**	______
Total Number of Issuers from Line (23)		______				
Total Weighted Issuers						______
Size Factor = Total Weighted Issuers divided by Total Number of Issuers						______

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

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.

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

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.

<u>Definitions and Instructions for the Spreadsheet Computation of Risk Reduction</u>

(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.

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

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

Common Stock Type	Factor	
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.

Moody's Analytics

Better Faster Decisions

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 moodys.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

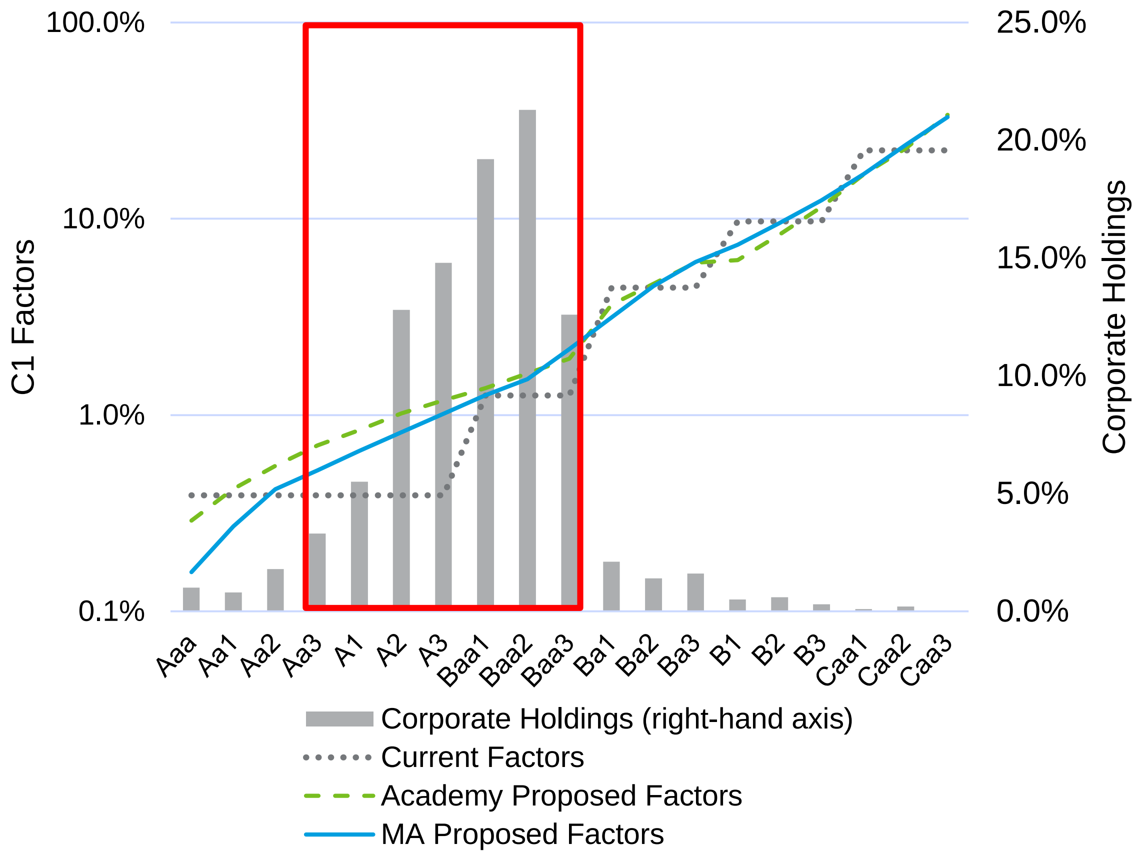
1

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

- » 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	(2) 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

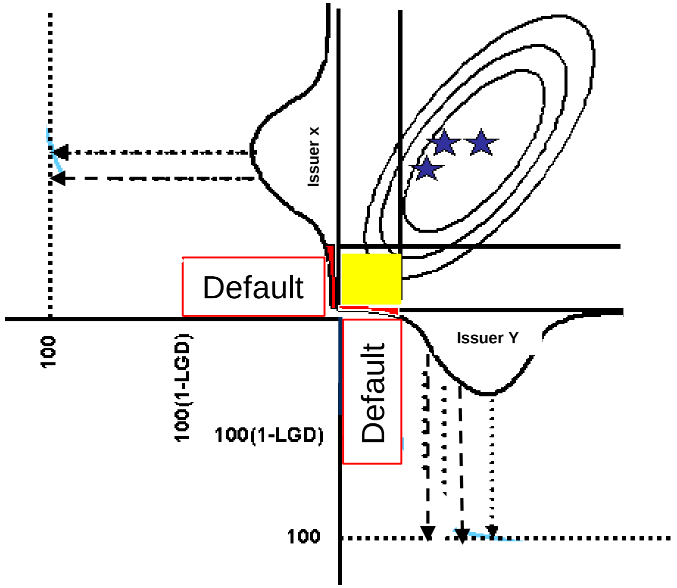
- Joint default events
- CDS implied
- MIS ratings implied
- Equity market and financial statement

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%	(1) 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% ← 24% →	0.896%
A2	0.390%	1.020%	0.817%	1.046%
A3	0.390%	1.190%	(3) 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%	(1) 2.848%	3.955%
Ba2	4.460%	4.660%	3.739%	4.840%
Ba3	4.460%	5.970%	(2) 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% ← 28% →	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.

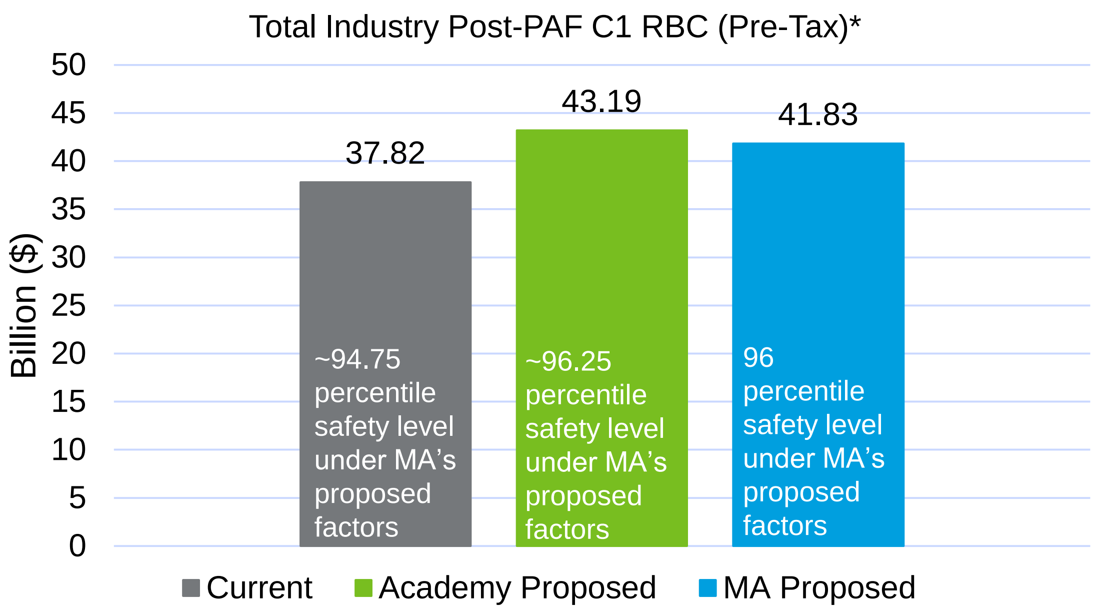
Thresholds*	Current*	Academy Proposed [March 2021]	MA Preliminary Proposed PAF
(Up to) 10	2.50	7.50	5.87
(Next) 90	1.83	1.75	1.53
(Next) 100	1.00	0.90	0.85
(Next) 300	0.97	0.85	0.85
(Above) 500	0.90	0.75	0.82

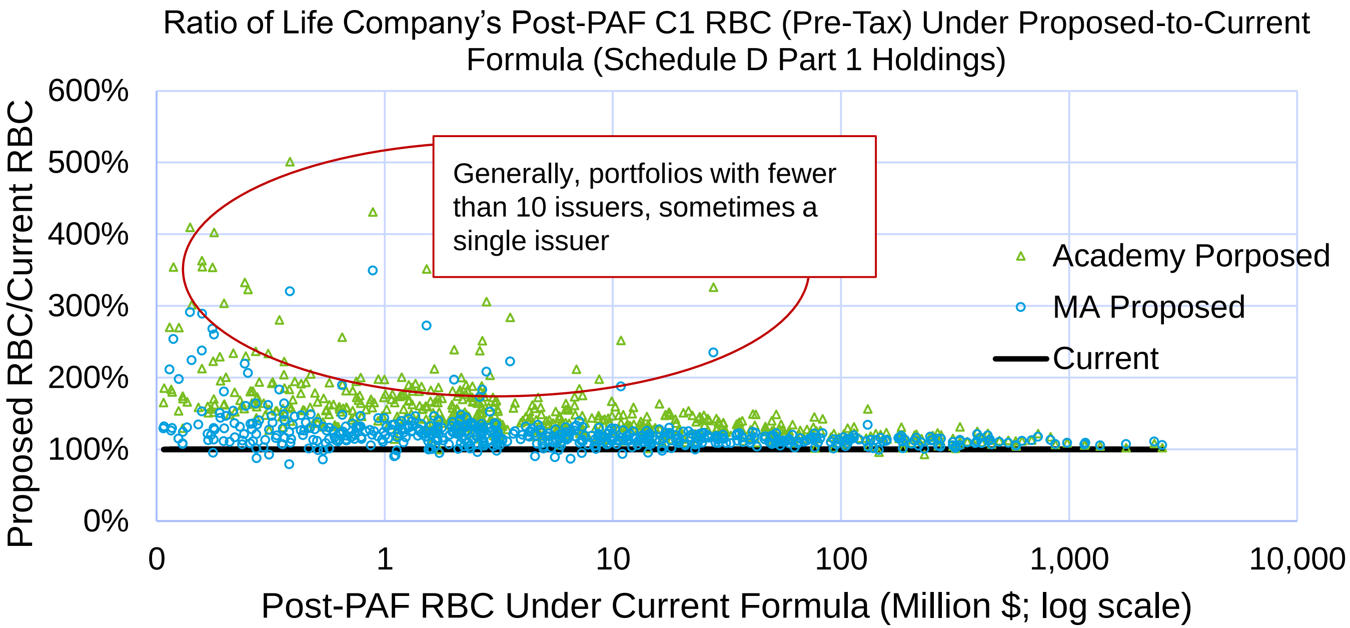
*Current PAF converted to Academy's proposed thresholds for better comparison.

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)		0.203%
Aa2	0.723%	0.200%	0.833%	0.729%	0.602%	0.519%
Aa3	1.144%	0.400%	0.907%			0.763%
A1	1.710%	0.700%	1.584%			1.122%
A2	2.347%	1.200%	(1) 2.339%	2.065%	1.751%	1.650%
A3	3.052%	1.800%	2.211%			2.272%
Baa1	3.855%	2.600%	2.261%			3.129%
Baa2	4.827%	3.600%	3.059%	3.362%	4.482%	4.309%
Baa3	6.076%	6.100%	5.059%			6.850%
Ba1	14.226%	9.400%	8.860%			10.889%
Ba2	18.472%	13.500%	12.219%	14.943%	18.679%	17.310%
Ba3	24.342%	17.660%	23.090%			22.191%
B1	32.298%	22.200%	28.593%			28.448%
B2	42.574%	27.200%	33.436%	34.134%	38.536%	36.471%
B3	54.703%	34.900%	41.262%			44.981%
Caa1	66.851%	47.700%	44.220%			55.478%
Caa2	75.403%	65.000%	54.609%	50.219%	51.363%	68.424%
Caa3	75.750%	80.700%	64.710%			84.391%

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%	(2) 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%	(1) 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	(1) 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%

2.7X

4.1X

4 Risk Premium

Risk Premium Updates

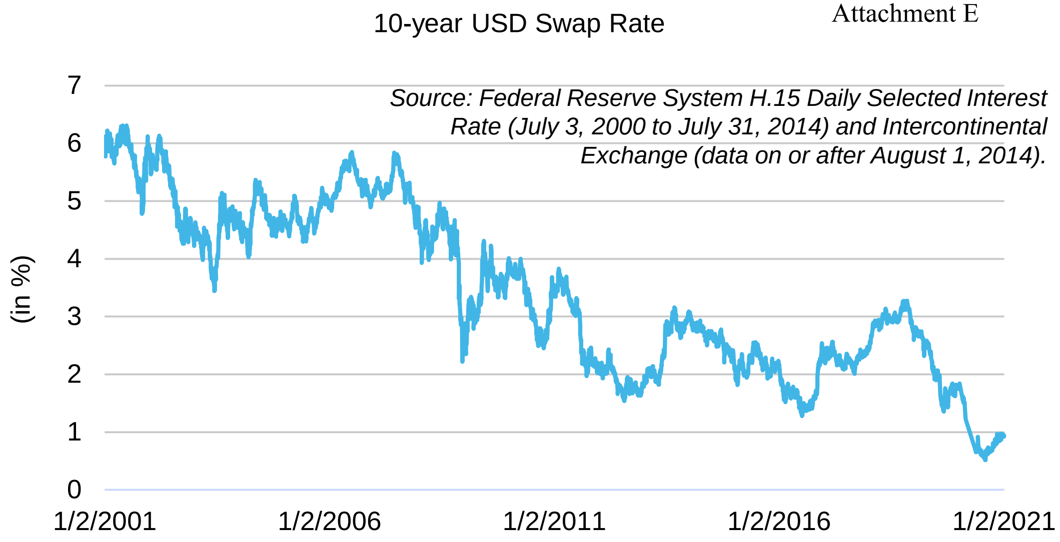
Aligning with reserves

- 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

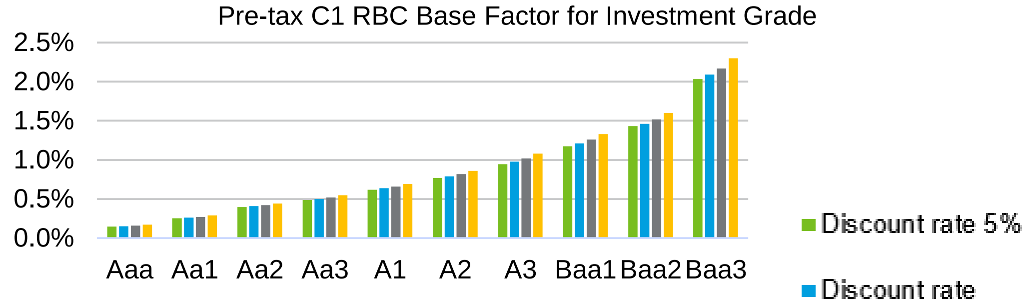
Possible candidates

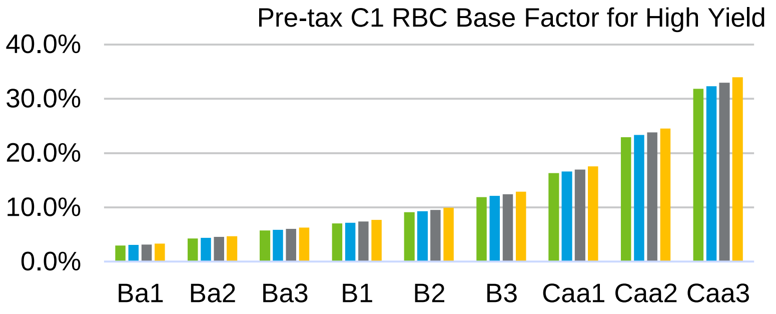


Tax rate was updated from 35% to 21%

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

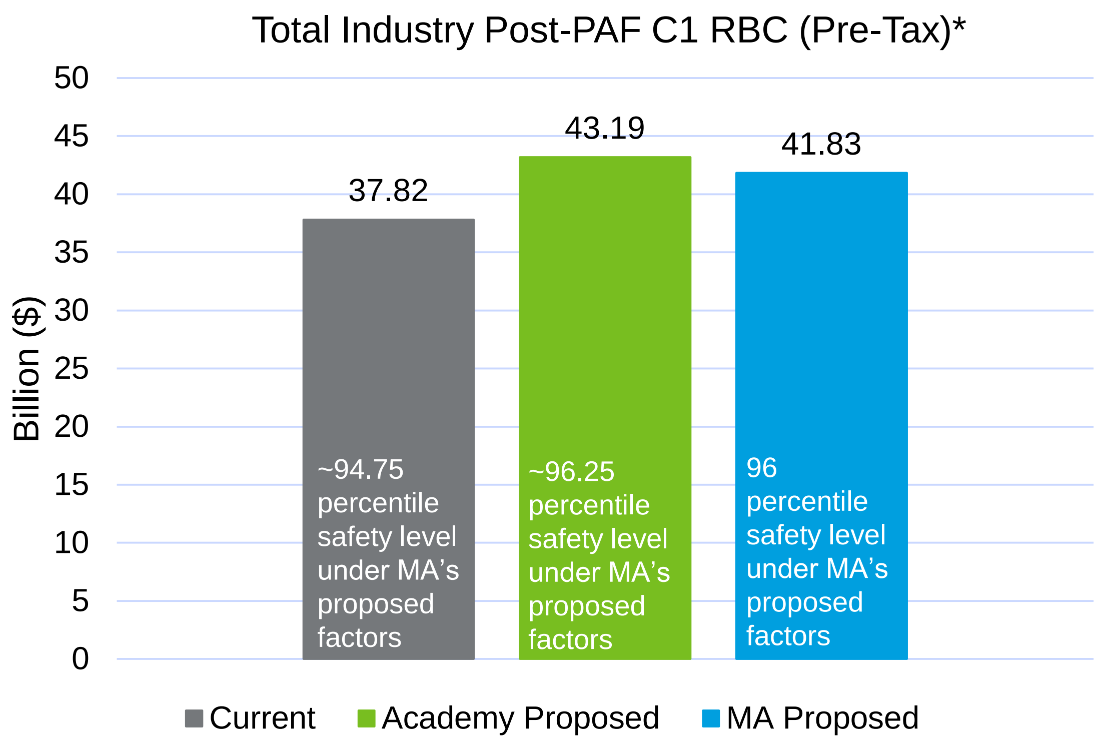


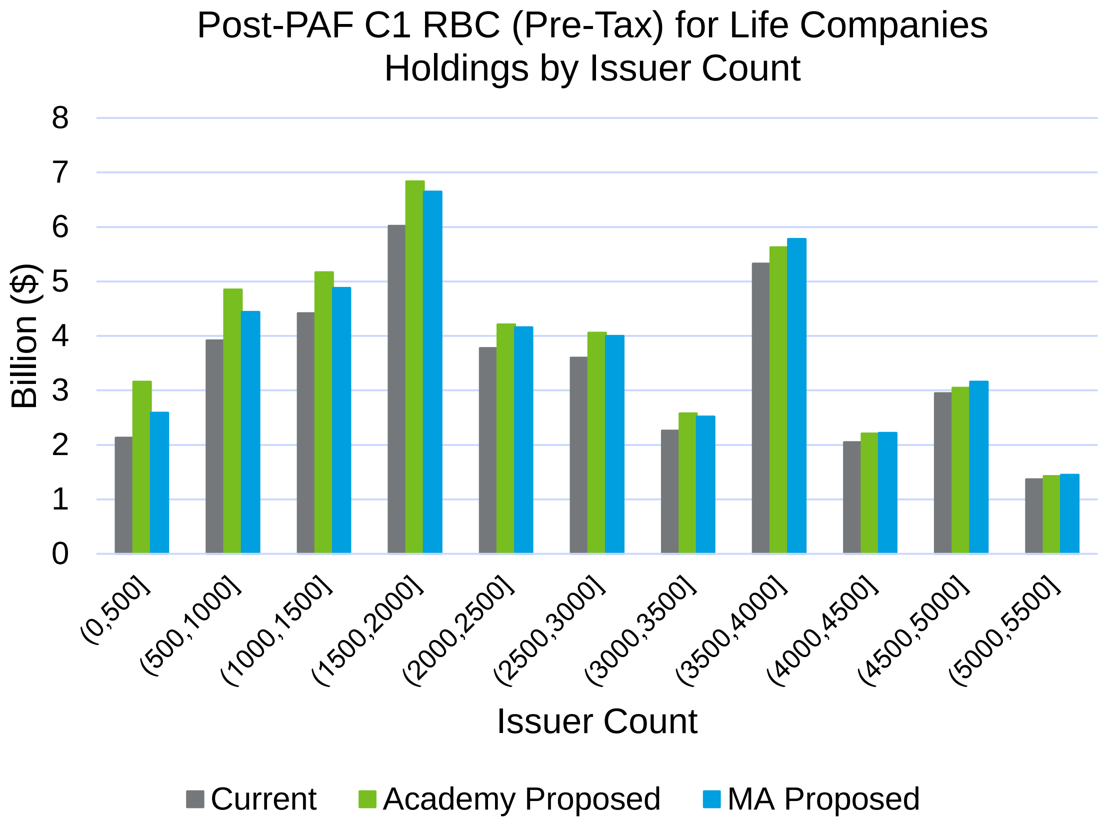


6 Recap

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.

Attachment E

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Attachment E

MOODY'S ANALYTICS

Better Faster Decisions

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

June 2021

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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.**

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 60th 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)

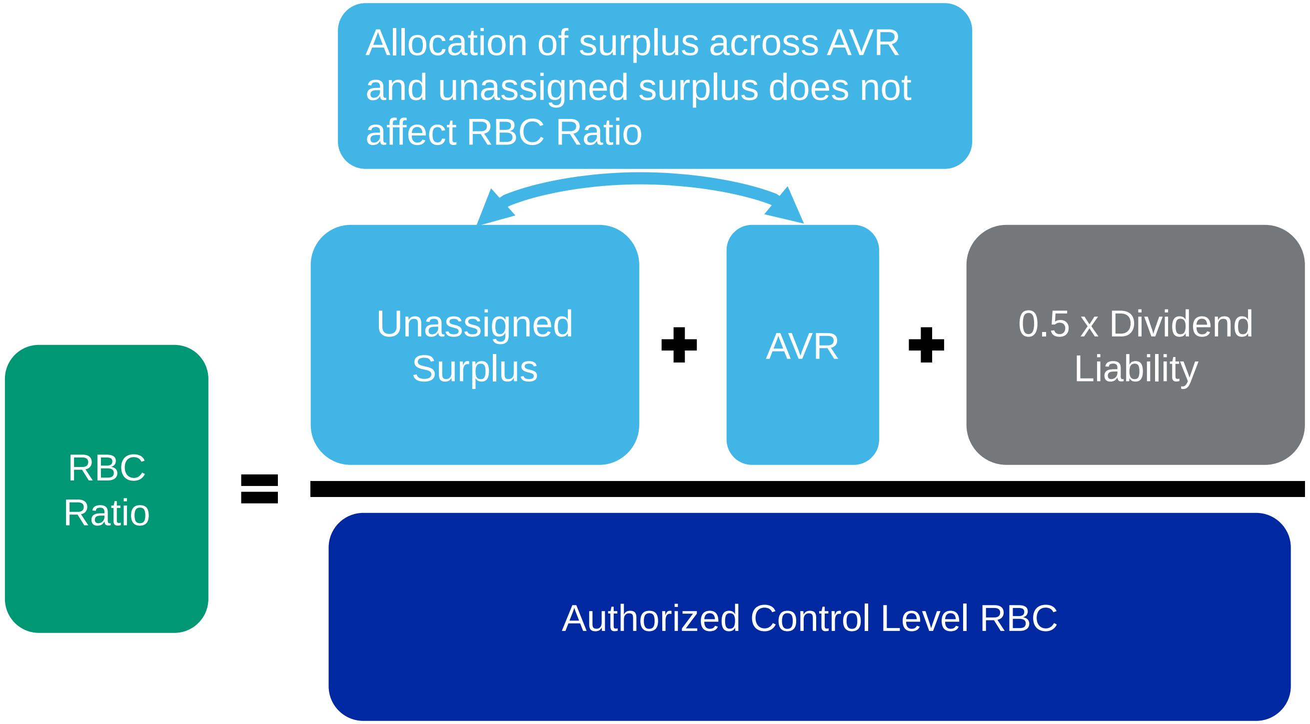
One of several interconnected modifications with largest impact to MA C1 factors

- 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 cyclicality 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 60th percentile

» With the Risk Premium set at the 60th 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 60th 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%	20.5%	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%	11.1%	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

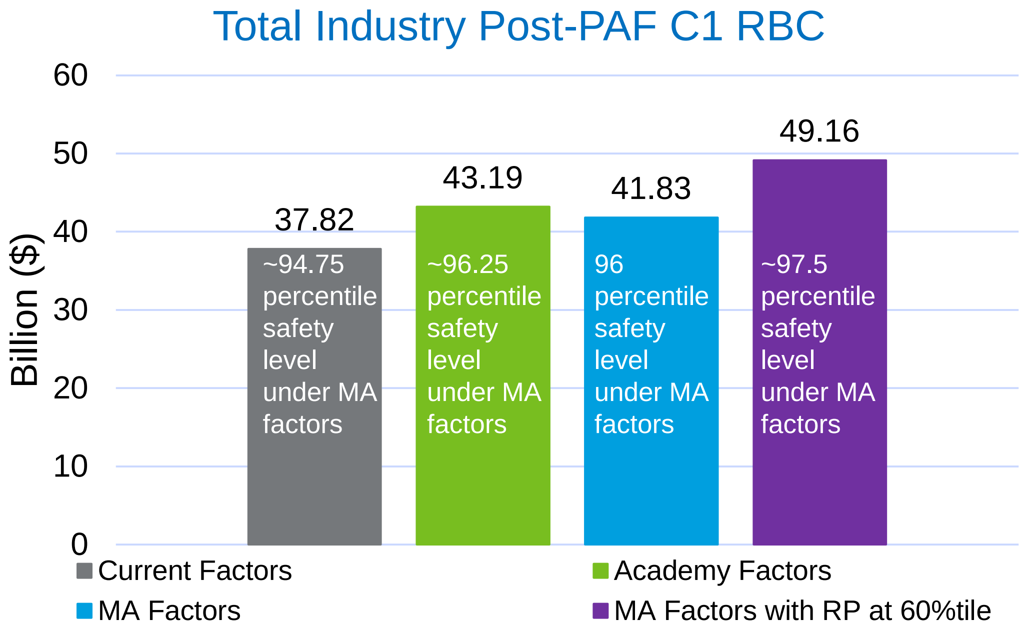
# of Issuers in the Portfolio	Current	Academy		MA			
				Risk Premium at Expected Loss Plus 0.5 Std Dev		Risk Premium at 60%ile	
	PAF	PAF	PAF Override	PAF	PAF Override	PAF	PAF Override
10	2.50	7.50	2.90	5.87	2.40	6.24	2.43
50	2.50	2.90	2.90	2.40	2.40	2.43	2.43
100	1.90	2.33	2.33	1.96	1.96	1.96	1.96
300	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

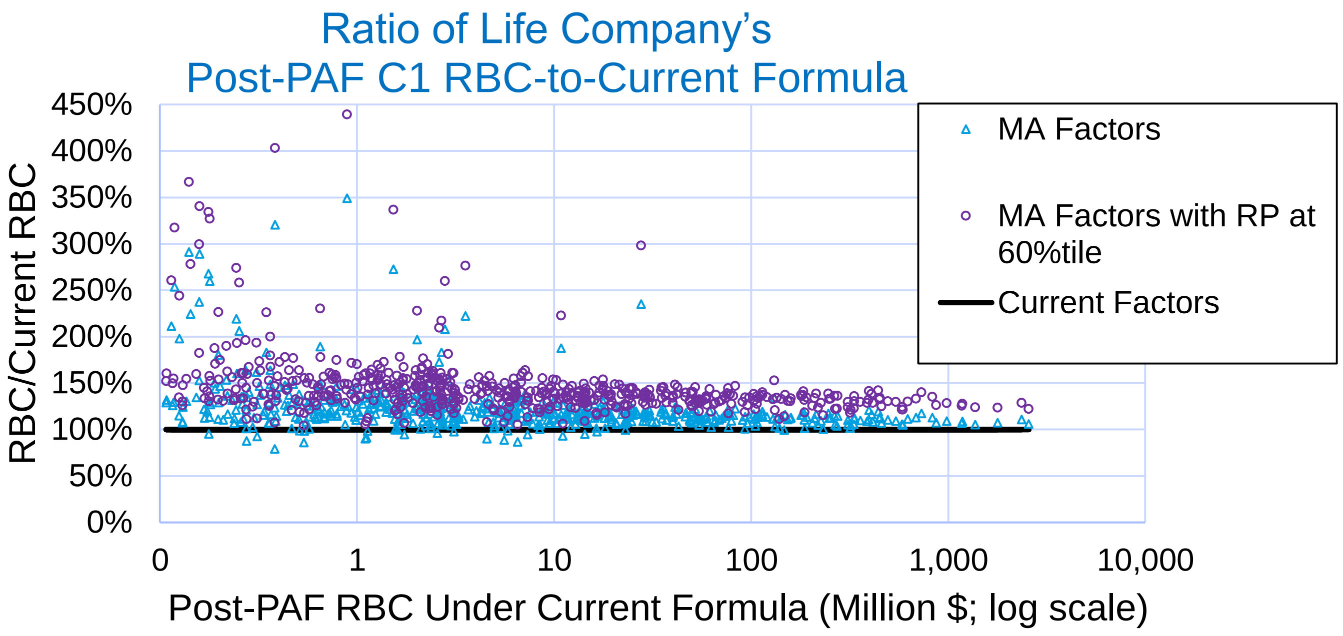
Sensitivity Analysis with Risk Premium set at 60th percentile

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 60th 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)



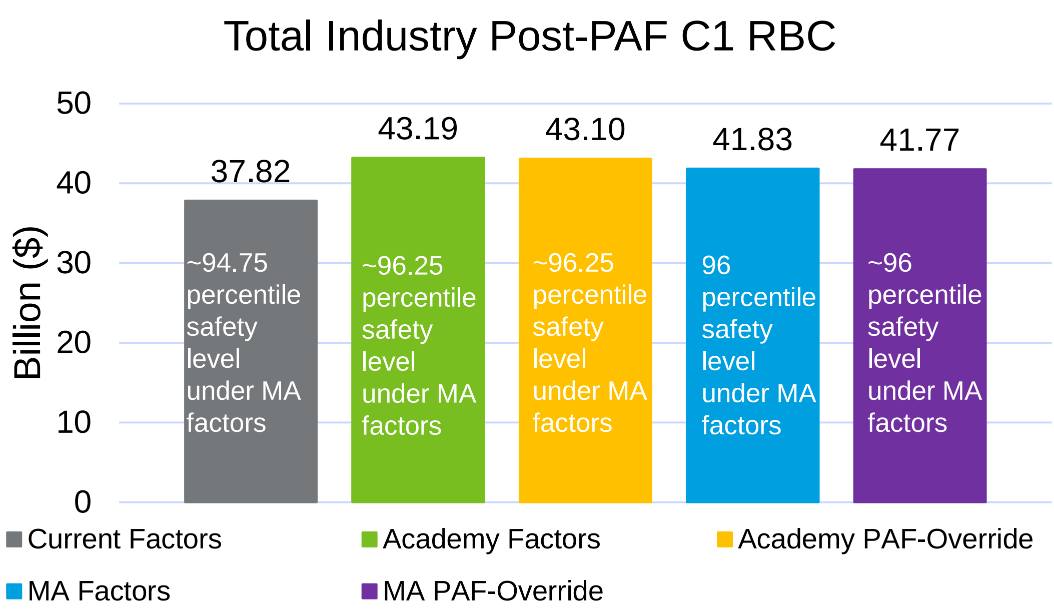


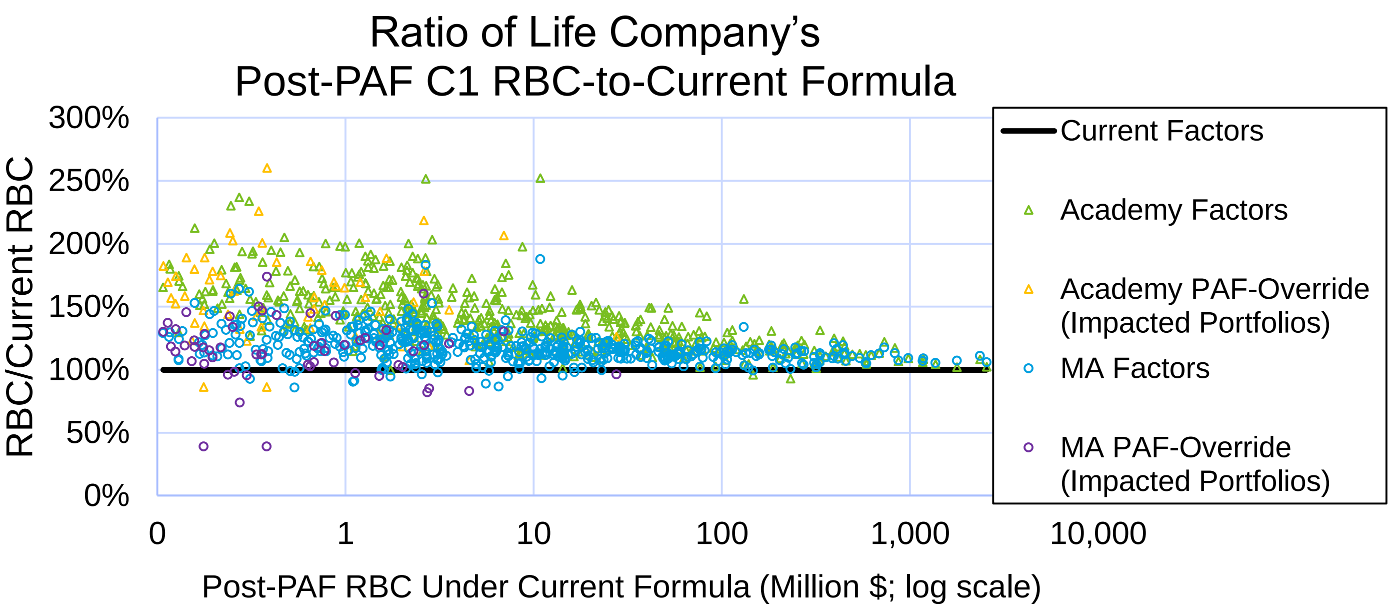
Note 1: Holdings includes all exposures on Schedule D Part 1 excluding US government bonds.
Note 2: For visual ease, the right-hand graph excludes portfolios with less than \$100K post-PAF RBC under the current formula.

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



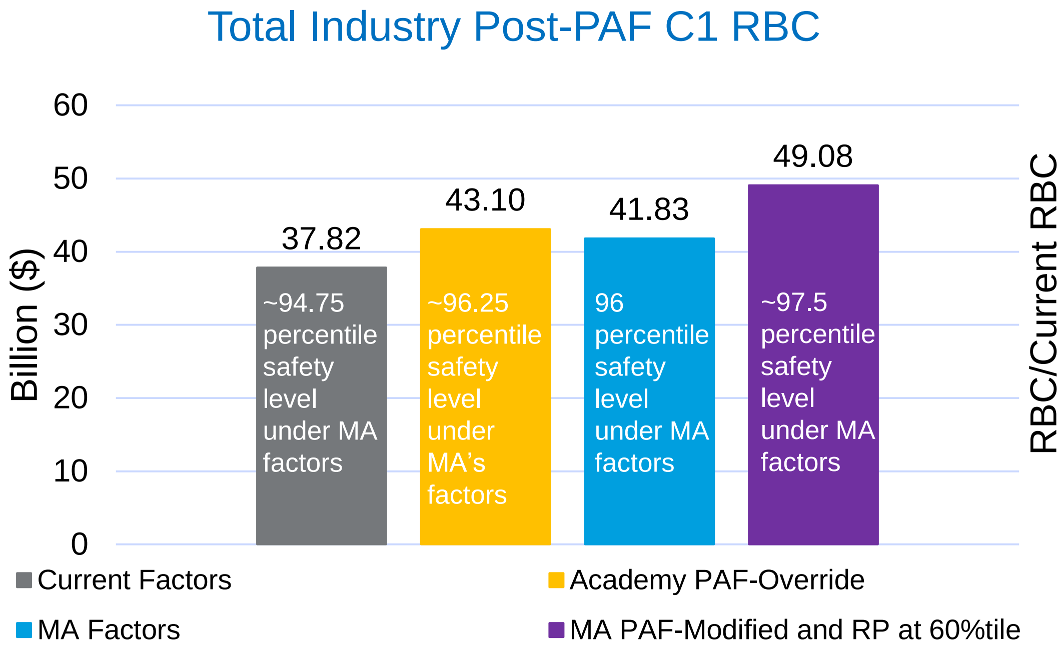


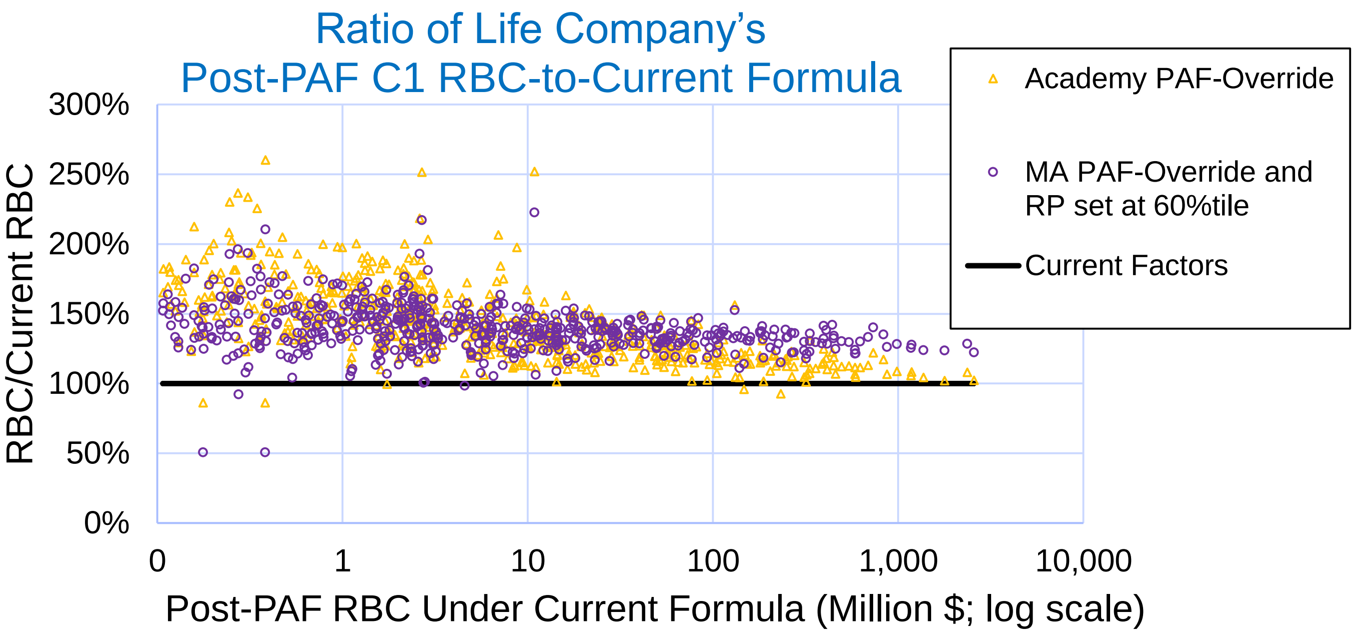
Note 1: Holdings includes all exposures on Schedule D Part 1 excluding US government bonds.
Note 2: For visual ease, the right-hand graph excludes portfolios with less than $100K post-PAF RBC under the current formula.

Combined Impact

With Risk Premium set at the 60th percentile and PAF-override

- MA formula with Risk Premium and PAF-override set at the 60th 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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