

CAPITAL ADEQUACY (E) TASK FORCE

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Proposal 2021-17-CR (Attachment Nine)

Proposal 2021-14-P (Attachment Ten)

Working Agenda (Attachment Eleven)

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Draft: 3/30/22

Capital Adequacy (E) Task Force
Virtual Meeting (*in lieu of meeting at the 2022 Spring National Meeting*)
March 28, 2022

The Capital Adequacy (E) Task Force met March 28, 2022. The following Task Force members participated: Judith L. French represented by Tom Botsko, Chair (OH); Doug Ommen represented by Mike Yanacheak, Vice Chair (IA); Jim L. Ridling represented by Jennifer Li (AL); Ricardo Lara represented by Thomas Reedy (CA); Andrew N. Mais represented by Wanchin Chou (CT); Trinidad Navarro represented by Adrienne Lupo and Steve Kinion (DE); Karima M. Woods represented by Philip Barlow (DC); David Altmaier represented by Virginia Christy (FL); Dana Popish Severinghaus represented by Vincent Tsang (IL); Vicki Schmidt represented by Tish Becker (KS); Sharon P. Clark represented by Russell Coy (KY); Chlora Lindley-Myers represented by William Leung (MO); Mike Causey represented by Jan Andrews (NC); Eric Dunning represented by Lindsay Crawford (NE); Marlene Caride represented by Diana Sherman (NJ); Elizabeth Kelleher Dwyer represented by Jack Broccoli (RI); Raymond G. Framer represented by Michael Shull (SC); Cassie Brown represented by Jamie Walker (TX); Mike Kreidler represented by Steve Drutz (WA); and Nathan Houdek represented by Amy Malm (WI).

1. Adopted its Jan. 27, 2022; Dec. 20, 2021; and 2021 Fall National Meeting Minutes

Mr. Botsko said the Task Force met Jan. 27, 2022; Dec. 20, 2021; and Nov. 17, 2021. During these meetings, the Task Force took the following action: 1) adopted its Sept. 30, 2021, minutes; 2) discussed the formation of a new risk-based capital (RBC) working group and solicited membership for the RBC Investment Risk and Evaluation (E) Working Group; 3) adopted the 2021 Catastrophe Event List; and 4) adopted its working group reports. Ms. Malm asked that the commissioner representative be updated to reflect her name on the Jan. 27, 2022, minutes.

Mr. Yanacheak made a motion, seconded by Mr. Chou to adopt the Task Force's Jan. 27, 2022, with the editorial change for Wisconsin (Attachment One); Dec. 20, 2021 (Attachment Two); and Nov. 17, 2021 (*see NAIC Proceedings – Fall 2021, Capital Adequacy Task Force*) minutes. The motion passed unanimously.

2. Adopted the Reports of its Working Groups

a. Health Risk-Based Capital (E) Working Group

Mr. Drutz said that the Health Risk-Based Capital (E) Working Group met March 18 and took the following action: 1) adopted its Feb. 25, 2022; Jan. 28, 2022; and Dec. 16, 2021, minutes; 2) discuss the American Academy of Actuaries' (Academy's) report on the H2 – Underwriting Risk Review; and 3) adopted its working agenda.

b. Life Risk-Based Capital (E) Working Group

The Life-Risk-Based Capital (E) Working Group met March 23 and took the following action: 1) Adopted its March 10, 2022; Jan. 20, 2022; Dec. 16, 2021; and 2021 Fall National Meeting minutes, which included the following action: 2) Discussed the Academy's C2 Work Group recommendation on mortality; 3) Discussed the asset valuation reserve (AVR) and bond factor changes; 4) Adopted guidance on bond factor changes; 5) Adopted its working agenda; 6) Discussed reinsurance and comfort trusts; and 7) Discussed bond funds.

c. Catastrophe Risk (E) Subgroup

The Catastrophe Risk (E) Subgroup met March 22 and took the following action: 1) adopted its Feb. 22, 2022; Jan. 25, 2022; and Dec. 16, 2021, minutes; 2) discussed its working agenda; 3) discussed the insured loss threshold

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for wildfire peril; 4) expose proposal 2021-17-CR-MOD (Wildfire Information-Only Reporting Exemption); 5) discussed the independent model review instruction in the Rcat component; and 6) discussed the issue of double counting in the R5 component.

d. Property and Casualty Risk-Based Capital (E) Working Group

Mr. Botsko said that the Property and Casualty Risk-Based Capital (E) Working Group met March 23 and took the following action: 1) adopted the Catastrophe Risk (E) Subgroup's Feb. 22, 2022; Jan. 25, 2022; and Dec. 16, 2021, minutes; 2) adopted the report of its subgroup; 3) adopted the following proposals: a) 2021-15-CR (Adding KCC Model); b) 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only); and c) 2021-14-P (R3 factor Adjustment); 4) exposed proposal 2022-01-P (Removing Trend Test Footnote); 5) discussed its working agenda; and 6) heard updates on current property/casualty (P/C) RBC projects from the Academy.

e. RBC Investment Risk and Evaluation (E) Working Group

Mr. Barlow said that the RBC Investment Risk and Evaluation (E) Working Group met March 22 to consider comments received in response to a Jan. 12 exposure on the RBC treatment of asset-backed securities (ABS), including collateralized loan obligations (CLOs), collateralized fund obligations (CFOs), or other similar securities with similar types of tail risk.

Mr. Leung made a motion, seconded by Mr. Yanacheak, to adopt the reports of the Health Risk-Based Capital (E) Working Group (Attachment Three), the Life Risk-Based Capital (E) Working Group (Attachment Four), the Catastrophe Risk (E) Subgroup (Attachment Five), the Property and Casualty Risk-Based Capital (E) Working Group (Attachment Five-A), and the RBC Investment Risk and Evaluation (E) Working Group (Attachment Six). The motion passed.

3. Adopted Proposal 2021-18-H-MOD (Investment Income Guidance)

Mr. Drutz said that the Health Risk-Based Capital (E) Working Group adopted proposal 2021-18-H-MOD on Feb. 25, using alternative language that provides guidance for evaluating the investment income adjustment within the underwriting risk factors. Additional clarity was incorporated into the guidance for the time period in which the Working Group will evaluate the investment yield prior to considering an adjustment.

Mr. Drutz made a motion, seconded by Mr. Chou, to adopt proposal 2021-18-H-MOD (Investment Income Guidance) (Attachment Seven). The motion passed.

4. Adopted Proposal 2021-15-CR (Approve Third-Party Vendor)

Mr. Chou said the purpose of this proposal is to include the Karen Clark & Company (KCC) model as one of the approved third-party commercial vendor catastrophe models. The Subgroup received one supporting letter, which stated appreciation for the Subgroup keeping the approval list current with market usage.

Mr. Chou made a motion, seconded by Mr. Reedy, to adopt proposal 2021-15-CR (Approve Third-Party Vendor) (Attachment Eight). The motion passed unanimously.

5. Adopted Proposal 2021-17-CR (Information Only Wildfire Peril)

Mr. Chou said the purpose of this proposal is to include wildfire peril in the Rcat component for informational purposes filing until all the concerns are addressed before incorporated into the RBC calculation. He stated that the Subgroup received three comment letters during the exposure period. However, Mr. Chou indicated that the

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Subgroup agreed to take time to evaluate the impact and allow more time for the modelers to enhance their modeling approach with this new peril.

Mr. Chou made a motion, seconded by Mr. Yanacheak, to adopt proposal 2021-17-CR (Information Only Wildfire Peril) (Attachment Nine). The motion passed unanimously.

6. Adopted Proposal 2021-14-P (R3 Factor Adjustment)

Mr. Botsko said this proposal intends to eliminate the double-counting effect of the operational risk charge on the component. He said NAIC staff performed an analysis to determine the impact on the RBC action levels by reducing the 2% reinsurance recoverable RBC charge for all reinsurance designation equivalents. The result indicated that the impact is insignificant, as there are only three companies with total adjusted capital (TAC) between zero to 75 million that will change the RBC results from action level to no action. He also stated that the Working Group received no comments during the exposure period.

Mr. Drutz made a motion, seconded by Mr. Chou, to adopt proposal 2021-14P (R3 Factor Adjustment) (Attachment Ten). The motion passed.

7. Adopted its Working Agenda

Mr. Botsko summarized the changes of the Task Force's 2022 working agenda, which included the following substantial changes: 1) adding the exposure and/or adoption dates to the items of "evaluate other catastrophe risks for possible inclusion in the charge" and "evaluate the possibility of allowing additional third-party models or adjustments to the vendor models to calculate the cat model losses"; 2) changing the expected completion dates for "evaluate the proposed changes from the Affiliated Investment Ad Hoc Group related to P/C RBC Affiliated Investments," "continue working with the Academy to review the methodology and revise the underwriting (Investment Income Adjustment, Loss Concentration, LOB UW risk) charges in the PRBC formula as "appropriate," evaluate if changes should be made to the P/C formula to better assess companies in runoff," and "evaluate the Underwriting Risk Line 1 Factors in the P/C formula" items; 3) removing the "modify instruction to PR027 Interrogatories that clarify how insurers with no gross exposure to earthquake or hurricane should complete the interrogatories" and "evaluate R3 Adjustment for Operational Risk Charge items; 4) adding the adoption date to the "implement wildfire peril in the Rcat component (for informational purposes only) item; and 5) adding "evaluate the possibility of modifying exemption criteria for different cat perils in the PR027 interrogatories," "evaluate the possibility of enhancing the independent model instructions," and "remove the trend test footnote in PR033" items under the new items section.

Mr. Drutz said the Health Risk-Based Capital (E) Working Group made the following updates to its working agenda for 2022: 1) combined item 27 and item 28 into one item and changed the expected completion date to "ongoing"; 2) updated the priority status and expected completion for item 28; 3) updated the expected completion and working agenda description for item 30; 4) combined item 31, 34, and 35 into one item and updated the expected completion date; 5) updated the expected completion dates for item 32 and item 33; and 6) updated the working item description for item 34.

Mr. Barlow mentioned that C2 mortality work was added because it was inadvertently left off the working agenda and that no other notable items changed from the current Life Risk-Based Capital (E) Working Group's agenda items. He mentioned that the RBC Investment Risk and Evaluation (E) Working Group contains many referrals from this Task Force and that he may add one more referral from the Life Risk-Based Capital (E) Working Group.

Mr. Chou made a motion, seconded by Mr. Yanacheak, to adopt the working agenda (Attachment Eleven). The motion passed.

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8. Discussed Other Matters

Mr. Botsko said that the results of the Affiliated Investment Ad Hoc Group will be shared in the coming weeks with the Life Risk-Based Capital (E) Working Group, the Health Risk-Based Capital (E) Working Group, and the Property and Casualty Risk-Based Capital (E) Working Group for continued discussion on the proposed adjustments to the affiliated investment instructions. Comments and suggestions will be reviewed and discussed at the Task Force level. Mr. Barlow stressed that the Ad Hoc Group did strive for consistency across the three formulas and that any suggested changes should be considered for consistency.

Mr. Botsko added that the Property and Casualty Risk-Based Capital (E) Working Group will be discussing a referral letter regarding run-off companies. Once direction is provided, the Working Group will share their findings with the Life Risk-Based Capital (E) Working Group and Health Risk-Based Capital (E) Working Group.

Mr. Botsko also welcomed Mr. Yanacheak as the new vice chair commissioner representative for Iowa.

Having no further business, the Capital Adequacy (E) Task Force adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/2022 Spring National Meeting/Mar 28 CADTF minutes.docx

Draft: 2/2/22

Capital Adequacy (E) Task Force
E-Vote
January 27, 2022

The Capital Adequacy (E) Task Force conducted an e-vote that concluded Jan. 27, 2022. The following Task Force members participated: Judith L. French, Chair, represented by Tom Botsko (OH); Doug Ommen, Vice Chair, represented by Mike Yanacheak (IA); Lori K. Wing-Heier represented by Wally Thomas (AK); Ricardo Lara represented by Thomas Reedy (CA); Andrew N. Mais represented by Wanchin Chou (CT); Karima M. Woods represented by Philip Barlow (DC); David Altmaier (FL); Vicki Schmidt represented by Tish Becker (KS); Sharon P. Clark represented by Russell Coy and Bill Clark (KY); Chlora Lindley-Myers represented by John Rehagen (MO); Elizabeth Kelleher Dwyer represented by Jack Broccoli (RI); Cassie Brown represented by Mike Boerner and Rachel Hemphill (TX); Mike Kreidler represented by Steve Drutz (WA), and Nathan Houdek represented by Amy Malm (WI).

1. Adopted the Updated 2021 U.S. and Non-U.S. Catastrophe Risk Event Lists

The Task Force conducted an e-vote to consider adoption of proposal 2021-16-CR (2021 U.S. and Non-U.S. Catastrophe Risk Event Lists).

Mr. Barlow made a motion, seconded by Mr. Chou, to adopt the 2021 U.S. and Non-U.S. Catastrophe Risk Event Lists (Attachment One-A). The motion passed unanimously.

Having no further business, the Capital Adequacy (E) Task Force adjourned.

<https://naiconline.sharepoint.com/:f/r/teams/FRSRBC/Capital%20Adequacy%20CapAd%20Task%20Force/2022%20Calls/Jan%202022?csf=1&web=1&e=H9A4kO>

U.S. List of Catastrophes for Use in Reporting catastrophe Data in PR036 and PR100+

Type of Event	Name	Date	Location	Overall losses when occurred
Hurricane	Sandy	2012		\$ 50,000,000,000
Hurricane	Isaac	2012		\$ 970,000,000
Tropical Storm	Debby	2012		\$ 105,000,000
Earthquake		2014	California	25+ million
Hurricane	Patricia	2015		25+ million
Hurricane	Joaquin	2015		25+ million
Hurricane	Matthew	2016	Florida, North Carolina, South Carolina, Georgia and Virginia	\$ 2,698,400,000
Hurricane	Hermine	2016	Florida, North Carolina, South Carolina, Georgia and Virginia	\$ 245,640,000
Hurricane	Harvey	2017	Texas, Louisiana	25+ million
Hurricane	Jose	2017	East Coast of the United States	25+ million
Hurricane	Irma	2017	Eastern United States	25+ million
Hurricane	Maria	2017	Southeastern United States, Mid-Atlantic States	25+ million
Hurricane	Nate	2017	Louisiana, Mississippi, Alabama, Tennessee and Eastern United States	25+ million
Tropical Storm	Alberto	2018	Southeast, Midwest	25+ million
Hurricane	Lane	2018	Hawaii	25+ million
Tropical Storm	Gordon	2018	Southeast, Gulf coast of the United States, Arkansas and Missouri	25+ million
Hurricane	Florence	2018	Southeast, Mid-Atlantic	25+ million
Hurricane	Michael	2018	Southeastern and East Coasts of United States	25+ million
Hurricane	Dorian	2019	Southeast, Mid-Atlantic	500+ million
Hurricane	Barry	2019	Southeast, Midwest, Northeast	300+ million
Tropical Storm	Imelda	2019	Plains, Southeast	25+ million
Tropical Storm	Nestor	2019	Southeast	25+ million
Hurricane	Lorenzo	2019	Louisiana, Mississippi, Texas and Arkansas	25+ million
Tropical Storm	Cristobal	2020	Southeast, Plains, Midwest	150 million
Tropical Storm	Fay	2020	Southeast, Northeast	400 million
Hurricane	Hanna	2020	Texas	350 million
Hurricane	Isaias	2020	Southeast, Mid-Atlantic, Northeast	> 3 billion
Hurricane	Laura	2020	Plains, Southeast, Mid-Atlantic	> 4 billion
Hurricane	Sally	2020	Southeast (Alabama, Mississippi, Louisiana)	> 1 billion
Tropical Storm	Beta	2020	Plains, Southeast	25+ million
Hurricane	Delta	2020	Gulf Coast of United States, Southeast, Northeast (AL, GA, NC, SC, MS, LA, TX)	> 2 billion
Hurricane	Zeta	2020	Gulf coast of the United States, Southeastern United States, Mid-Atlantic	> 1.5 billion
Tropical Storm	Claudette	2021	Gulf Coast of the United States, Georgia, Carolinas	> 350 million
Hurricane	Elsa	2021	East Coast of the United States	1.2 billion
Tropical Storm	Fred	2021	Eastern United States (particularly Florida and North Carolina)	1.3 billion
Hurricane	Henri	2021	Northeastern United States	550 million
Hurricane	Ida	2021	Gulf Coast of the United States (especially Louisiana), East Coast of the United States (especially the Northeastern United States)	44 billion
Tropical Storm	Nicholas	2021	LA, TX	>1.1b
Tropical Storm	Wanda	2021	Southern United States, Mid-Atlantic United States, Northeastern United States	>200 million

Non U.S. List of Catastrophes For Use in Reporting Catastrophe Data in PR036 and PR100+

Year	Event Type	Begin	End	Event	Country	Affected Area (Detail)	Munich Re NatCATService Insured losses (in original values, US\$m) Criteria: insured losses equal/greater US\$ 25m. Tries to reflect non-US losses only	Swiss Re Sigma: Insured Loss Est. US\$m (mid point shown if range given) Mostly reflect total US and nonUS losses combined.	
2010	Earthquake	04/09/2010	04/09/2010	Earthquake	New Zealand	Canterbury, Christchurch, Avonside, Omih, Timaru, Kaiapoi, Lyttelton	5000	4450	
2010	Earthquake	04/04/2010	04/04/2010	Earthquake	Mexico	Baja California, Mexicali, Tijuana, Calexico	300	300	
2010	Earthquake	27/02/2010	27/02/2010	Earthquake	Chile	Bió Bió, Concepción, Talcahuano, Coronel, Dichato, Chillán; Del Maule, Talca, Curicó, Constitucion, Caleta Duao, Iloca, Pelluhue, Parral; Metropolitana, Santiago; Valparaíso, Putaendo; La Araucanía, Angol, Temuco; Del General Libertador Bernado Ohiggins, Rancagua, Angol; Juan Fernandez Islands	8000	8000	
2012	Earthquake	29/05/2012	29/05/2012	Earthquake	Italy	Emilia-Romagna, San Felice del Panaro, Cavezzo, Rovereto di Novi, Carpi, Concordia, Bologna, Mailand, Aosta Valley, Venice, Mirandola	1600	N/A	
2013	Tropical Cyclone	08/11/2013	12/11/2013	Typhoon Haiyan		Philippines, Vietnam, China	700	N/A	
2014	Earthquake	07/07/2014		Earthquake	Mexico, Guatemala		N/A	N/A	25+million
2014	Earthquake	04/01/14		Earthquake	Chile		N/A	N/A	100+million
2014	Earthquake	12/02/2014		Earthquake	China		N/A	N/A	350+million
2014	Earthquake	05/04/2014		Earthquake	China		N/A	N/A	80+million
2014	Earthquake	05/05/2014		Earthquake	Thailand		N/A	N/A	62+million
2014	Earthquake	05/24/14		Earthquake	China		N/A	N/A	60+million
2014	Tropical Storm	06/14/14	06/16/14	TS Hagibis	China		N/A	N/A	131+million
2014	Super Typhoon	07/08/14	07/11/14	STY Neoguri	Japan		N/A	N/A	100+million
2014	Super Typhoon	07/15/14	07/20/14	STY Rammasun		Philippines, China, Vietnam	N/A	N/A	570+million
2014	Typhoon	07/22/14	07/24/14	TY Matmo		Taiwan, China, Philippines	N/A	N/A	570+million
2014	Cyclone	01/10/14	01/12/14	CY Ian	Tonga		N/A	N/A	48+million
2014	Cyclone	04/10/14	04/14/14	CY Ita	Australia		N/A	N/A	1+billion
2015	Hurricane	08/16/92	08/28/92	Hurricane Andrew	Bahamas				> 25 million
2015	Hurricane	10/20/15	10/24/15	Hurricane Patricia		Bahamas Central America, Mexico	N/A	N/A	> 25 million
2015	Typhoon	06/26/15	07/13/15	Typhoon Chan-hom (Falcon)		Guam, Northern Mariana Islands, Philippines, Japan, Taiwan, Chian, Korea, Russian Far East	N/A	N/A	> 25 million
2015	Severe Tropical Storm	07/01/15	07/10/15	Severe Tropical Storm Linfa (Egay)		Philippines, Taiwan, China	N/A	N/A	> 25 million
2015	Typhoon	07/02/15	07/18/15	Typhoon Nangka		Marshall Islands, Mariana Islands and Japan	N/A	N/A	> 25 million
2015	Typhoon	07/29/15	08/12/15	Typhoon Soudelor (Hanna)		Mariana Islands, Japan, Philippines, Taiwan, Eastern China and South Korea	N/A	N/A	> 25 million
2015	Typhoon	08/13/15	08/30/15	Typhoon Goni (Ineng)		Mariana Islands, Japan, Philippines, Taiwan, China, Russia and Korea	N/A	N/A	> 25 million
2015	Severe Tropical Storm	09/06/15	09/11/15	Severe Tropical Storm Etau		Japan, Russian Far East	N/A	N/A	> 25 million
2015	Typhoon	09/19/15	09/30/15	Typhoon Dujuan (Jenny)		Ryukyu Islands, Taiwan, East China	N/A	N/A	> 25 million
2015	Typhoon	09/30/15	10/05/15	Typhoon Mujigae (Kabayan)		Philippines, Vietnam and China	N/A	N/A	> 25 million
2015	Typhoon	10/12/15	10/21/15	Typhoon Koppu (Lando)		Northern Mariana Islands, Philippines, Taiwan, Ryukyu Islands	N/A	N/A	> 25 million

Non U.S. List of Catastrophes For Use in Reporting Catastrophe Data in PR036 and PR100+

	Typhoon	12/03/15	12/08/15	Storm Desmond		Ireland, Isle of Man, United Kingdom, Iceland, Norway and Sweden	N/A	N/A	> 25 million
2015	Hurricane	09/28/15	10/15/15	Hurricane Joaquin		Caribbean Islands, Portugal	N/A	N/A	> 25 million
2015	Earthquake	04/27/15		Earthquake	Nepal		N/A	N/A	> 25 million
2015	Earthquake	09/22/15		Earthquake	Chile		N/A	N/A	> 25 million
2016	Hurricane	08/28/16	09/06/16	Hurricane Hermine		Dominican Republic, Cuba, The Bahamas	N/A	N/A	> 25 million
2016	Tropical Cyclone	02/16/16	02/22/16	TC Winston		South Pacific Islands	N/A	N/A	> 25 million
2016	Earthquake	02/06/16		Earthquake	Taiwan	Asia	N/A	N/A	> 25 million
2016	Earthquake	01/03/16		Kaohsiung EQ	India, Bangladesh, Myanmar	Asia	N/A	N/A	> 25 million
2016	Earthquake	02/14/16		Christchurch EQ	New Zealand	Oceania	N/A	N/A	> 25 million
2016	Earthquake	04/14/16	04/16/16	Kumamoto EQs	Japan	Asia	N/A	N/A	> 25 million
2016	Earthquake	04/16/16		Ecuador EQ	Ecuador	South America	N/A	N/A	> 25 million
2016	Tropical Cyclone	05/14/16	05/23/16	CY Roanu	Sri Lanka, India, Bangladesh, China	Asia	N/A	N/A	> 25 million
2016	Earthquake	08/24/16		Italy EQ	Italy	Europe	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/14/16	09/16/16	STY Meranti	China, Taiwan, Philippines	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	07/08/16	07/12/16	STY Nepartak	China, Taiwan	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/26/16	09/29/16	TY Megi	Taiwan, China	Asia	N/A	N/A	> 25 million
2016	Earthquake	09/10/16		Kagera EQ	Tanzania, Uganda	Africa	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/29/16	09/01/16	TY Lionrock	China, Japan, South Korea	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/19/16	09/22/16	TY Malakas	Japan, China	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/18/16	08/20/16	TS Dianmu	China, Vietnam	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	07/31/16	08/03/16	TY Nidia	China, Philippines Vietnam	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/02/16	08/10/16	HU Earl	Belize, Mexico, Caribbean Islands	Caribbean Islands, Mexico and Central America	N/A	N/A	> 25 million
2016	Tropical Cyclone	08/22/16	08/23/16	TS Mindulle	Japan	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	09/06/16	09/08/16	HU Newton	Mexico	North America (non-U.S.)	N/A	N/A	> 25 million
2016	Tropical Cyclone	10/04/16	10/07/16	STY Chaba	Japan, Korea	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	10/16/16	10/22/16	STY Haima	Philippines, China	Asia	N/A	N/A	> 25 million
2016	Tropical Cyclone	10/14/16	10/20/16	TY Sarika	Philippines, China, Vietnam	Asia	N/A	N/A	> 25 million
2016	Earthquake	10/26/16		Central Italy EQ	Italy	Europe	N/A	N/A	> 25 million
2016	Earthquake	10/27/16		Central Italy EQ	Italy	Europe	N/A	N/A	> 25 million
2016	Earthquake	10/21/16		Tottori	Japan	Asia	N/A	N/A	> 25 million
2016	Hurricane	09/28/16	10/10/16	Hurricane Matthew		Caribbean Islands and Eastern Canada	N/A	N/A	> 25 million
2016	Hurricane	08/28/16	09/06/16	Hurricane Hermine		Dominican Republic, Cuba, The Bahamas	N/A	N/A	> 25 million
2017	Earthquake	01/18/17		Earthquake	Italy	Europe	N/A	N/A	> 25 million
2017	Earthquake	01/28/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Earthquake	02/10/17		Earthquake	Philippines	Asia	N/A	N/A	> 25 million
2017	Earthquake	03/27/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Cyclone	03/28/17	04/05/17	CY Debbie	Australia	Queensland, New South Wales, New Zealand	N/A	N/A	> 25 million
2017	Earthquake	05/11/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Typhoon	07/29/17	07/31/17	TY Nesat & TS Haitang	China, Taiwan, Philippines	Asia	N/A	N/A	> 25 million
2017	Typhoon	08/07/17	08/09/17	Typhoon Noru	Japan	Asia	N/A	N/A	> 25 million
2017	Earthquake	08/08/17		Earthquake	China	Asia	N/A	N/A	> 25 million
2017	Typhoon	08/23/17	08/24/17	TY Hato	China	Macau, Hong Kong	N/A	N/A	> 25 million
2017	Typhoon	08/25/17	08/28/17	TY Pakhar	China	Asia	N/A	N/A	> 25 million
2017	Hurricane	08/25/17	09/02/17	Hurricane Harvey		Caribbean Islands and Central America	N/A	N/A	> 25 million
2017	Hurricane	08/30/17	09/16/17	Hurricane Irma		Caribbean Islands and Cape Verde	N/A	N/A	> 25 million
2017	Hurricane	09/05/17	09/26/17	Hurricane Jose		Caribbean Islands and Eastern Canada	N/A	N/A	> 25 million
2017	Hurricane	09/16/17	10/03/17	Hurricane Maria		Caribbean Islands, UK, France and Spain	N/A	N/A	> 25 million
2017	Earthquake	09/07/17		Earthquake		Mexico, Guatemala	N/A	N/A	> 25 million
2017	Earthquake	09/19/17		Earthquake	Mexico	Mexico City	>200	N/A	> 25 million
2017	Hurricane	10/04/17		Hurricane Nate		Central America, Cayman Islands, Cuba Yucatan Peninsula	N/A	N/A	> 25 million
2018	Earthquake	02/06/18		Earthquake	Taiwan				> 25 million

Non U.S. List of Catastrophes For Use in Reporting Catastrophe Data in PR036 and PR100+

2018	Earthquake	02/16/18		Earthquake	Mexico				> 25 million
2018	Cyclone	02/09/18	02/20/18	CY Gita	Tonga, Fiji, Samoa, New Zealand				> 25 million
2018	Earthquake	02/26/18		Earthquake	Papua New Guinea				> 25 million
2018	Earthquake	03/05/18		Earthquake	Papua New Guinea				> 25 million
2018	Cyclone	03/17/18		CY Marcus					> 25 million
2018	Tropical Storm	05/23/18	05/27/18	Tropical Storm Mekunu	Yamen, Oman , Saudi Arabia				> 25 million
2018	Tropical Storm	06/02/18	06/07/18	Tropical Storm Ewiniar	Vietnam, China, Taiwan, Philippines and Ryukyu Islands	Guangdong Province, Jiangxi, Fujian, Zhejiang Provinces, and Hainan Island.			> 25 million
2018	Earthquake	06/18/18		Earthquake	Japan				> 25 million
2018	Super Typhoon	07/10/18	07/12/18	STY Maria	China, Taiwan, Guam and Japan	Fujian province, Yantze River Basin, Japan's Ryukyu Islands			> 25 million
2018	Tropical Storm	07/17/18	07/24/18	TS Sonh-Tinh	Vietnam, China, Loas	Japan, Russian Far East			> 25 million
2018	Tropical Storm	07/22/18	07/25/15	TS Ampil	China	Jiangsu, Zhejiang, Shandong, and Hebei			> 25 million
2018	Typhoon	07/27/18	08/03/18	TY Jongdari	Japan, China				> 25 million
2018	Earthquake	08/05/15	08/09/18	Earthquake	Indonesia				> 25 million
2018	Tropical Storm	08/09/18	08/15/18	TS Yagi	Philippines, China	Zhejiang, Anhui, Jiangsu and Shandong Provinces.			> 25 million
2018	Tropical Storm	08/13/18	08/19/18	TS Bebinca	China	Hong Kong, Guangdong and Hainan			> 25 million
2018	Typhoon	08/16/18	08/18/18	TY Rumbia	China	Shanghai, Jiangsu, Zhehiang, Anhui, Shandong and Henan			> 25 million
2018	Typhoon	08/23/18	08/25/18	TY Soulik	Japan, South Korea, China and Russia	Haenam County, South Jeolla Province			> 25 million
2018	Typhoon	09/04/18	09/05/18	RY Jebi	Japan, Mariana Islands, Taiwan, Japan, Russian Far East and Artic				> 25 million
2018	Earthquake	09/06/18		Earthquake	Japan	Hokkaido			> 25 million
2018	Super Typhoon	09/15/18	09/18/18	STY Mangkhut	N. Mariana Islands, Philippines, China and Hong Kong				> 25 million
2018	Hurricane	Leslie	09/23/18	Hurricane Leslie	Azores, Bermuda, Europe	Azores, Bermuda, Madeira, Iberian Peninsula, France			> 25 million
2018	Hurricane	10/07/18	10/16/18	Hurricane Michael	Central American, Yucatan Peninsula, Cayman Islands, Cuba, Atlantic, Canad				> 25 million
2019	Cyclone	05/03/19	05/05/19	Cyclone Fani	India, Bangladesh				>500 million
2019	Earthquake	06/17/19		Earthquake	China				> 25 million
2019	Tropical Storm	08/01/19	08/08/19	Tropical Storm Wipha	China, Vietnam				> 25 million
2019	Typhoon	08/09/19	08/11/19	Typhoon Lekima	China				> 855 million
2019	Typhoon	08/15/19	08/16/19	Typhoon Krosa	Japan				>25 million
2019	Hurricane	08/31/19	09/07/19	Hurricane Dorian	Caribbean, Bahamas, Canada				>1 billion
2019	Typhoon	09/05/19	09/08/19	Typhoon Lingling	Japan, China, Korea				>5.78 billion
2019	Typhoon	09/08/19	09/09/19	Typhoon Faxai	Japan				> 7 billion
2019	Hurricane	09/19/19	09/22/19	Hurricane Humberto	Bermuda				>25+ million
2019	Hurricane	09/17/19	09/26/19	Hurricane Lorenzo	Portugal				>25+ million
2019	Earthquake	11/26/19		Earthquake	Albania				>25+ million
2019	Cyclone	11/08/19	11/11/19	Cyclone Matmo (Bulbul)	India, Bangladesh				>25+ million
2019	Typhoon	10/01/19	10/02/19	Typhoon Hagibis	Japan				> 7 billion
2019	Earthquake	12/18/19		Earthquake	Philippines				>25+ million
2020	Earthquake	03/22/20		Earthquake	Croatia				>25+ million
		04/01/20	04/11/20	Cyclone Harold	Solomon Islands, Canuatu, Fiji, Tonga				> 25+ million
2020	Tropical Storm	05/31/20		Tropical Storm Amanda	El Salvador, Guatemala, Honduras				> 25+ million
2020	Tropical Storm	06/01/20	06/05/20	Tropical Storm Cristobal	Mexico, Guatemala, El Salvador				150 million
2020	Hurricane	07/25/20	07/27/20	Hurricane Hanna	Mexico				350 million
2020	Hurricane	07/28/20	08/01/20	Hurricane Isaias	Caribbean, Canada				> 3 billion
2020	Hurricane	08/22/20	08/25/20	Hurricane Laura	Caribbean				> 4 billion
2020	Typhoon	05/15/20	05/22/20	Typhoon Amphan	India, Bangladesh, Sri Lanka				15 billion
2020	Tropical Storm	06/03/20	06/04/20	Tropical Storm Nisarga	India				> 25+ million
2020	Typhoon	08/03/20	08/04/20	Typhoon Hagupit	China, Taiwan				> 100+ million
2020	Hurricane	10/05/20	10/12/20	Hurricane Delta	Jamaica, Nicaragua, Cayman Island, Yucatan Peninsula				> 2 billion

Non U.S. List of Catastrophes For Use in Reporting Catastrophe Data in PR036 and PR100+

	Hurricane	10/24/20	10/30/20	Hurricane Zeta	Cayman Islands, Jamaica, Central America, Yucatan Peninsula, Ireland, United Kingdom				> 1.5 billion
2020	Cyclone	04/01/20	04/11/20	Cyclone Harold	Solomon Islands, Canuatu, Fiji, Tonga				> 25+ million
2020	Hurricane	10/31/20	11/14/20	Hurricane Eta	Colombia, Jamaica, Central America, Cayman Islands, Cuba, The Bahamas				> 7.9 billion
2020	Hurricane	11/14/20	11/19/20	Hurricane Iota	ABC Islands, Colombia, Jamaica, Central America				> 1.4 billion
2020	Typhoon	11/22/20	11/23/20	Typhoon Goni	Philippines, Vietnam, Cambodia, Laos				> 400+ million
2020	Typhoon	11/08/20	11/15/20	Typhoon Vamco	Philippines, Vietnam, Laos, Thailand				> 400+ million
2021	Earthquake	01/14/21	01/14/21	West Sulawesi	Indonesia				> 58.1 million
2021	Earthquake	02/13/21	02/13/21	Fukushima Prefecture Offshore	Japan				1.3 billion
2021	Tropical Cyclone	05/17/21		Tropical Cyclone Tautae	India				> 25+ million
2021	Tropical Storm	06/19/21	06/23/21	Tropical Storm Claudette	Oaxaca, Veracruz, Atlantic Canada				> 25+ million
2021	Earthquake	06/21/21	06/21/21	China	Yunnan Dali				> 25+ million
2021	Earthquake	06/21/21	06/21/21	China	Southern Qinghai				> 25+ million
2021	Hurricane	07/01/21	07/14/21	Elsa	Lesser Antilles, Greater Antilles, Venezuela, Colombia, Atlantic Canada, Greenland, Iceland				50 million
2021	Typhoon	07/16/21	07/31/21	In-fa (Fabian)	Philippines, Ryukyu Islands, Taiwan, China, North Korea				> 25+ million
2021	Tropical Storm	08/11/21	08/20/21	Fred	Lesser Antilles, Greater Antilles, Southern Quebec, The Maritimes				25 million
2021	Hurricane	08/13/21	08/21/21	Grace	Lesser Antilles, Greater Antilles, Yucatan Peninsula, Central Mexico				513 million
2021	Earthquake	08/14/21	08/14/21		Haiti				1 billion
2021	Hurricane	08/26/21	09/04/21	Ida	Venezuela, Colombia, Jamaica, Cayman Islands, Cuba, Atlantic Canada				> 250 million
2021	Earthquake	09/07/21	09/07/21	Guerrero	Mexico				200 million
2021	Earthquake	09/16/21			China				> 25+ million
2021	Hurricane	09/12/21	09/18/21	Nicholas	Yucatan Peninsula, Tamaulipas				1.1 billion
2021	Hurricane	09/10/21	09/11/21	Larry	Canada				80 million
2021	Cyclone	10/02/21	10/04/21	Cyclone Shaheen	Oman, Iran, India, Pakistan, United Arab Emirates, Saudi Arabia, Yemen				> 25+ million
2021	Earthquake	10/07/21	10/07/21		Japan				> 25+ million
2021	Tropical Storm	10/10/21	10/14/21	Tropical Storm Kompas	Philippines, Hong Kong, China				245 million
2021	Earthquake	10/16/21	10/16/21		Indonesia				> 25+ million
2021	Tropical Cyclone	10/24/21	11/02/21	Apollo	Italy, Malta, Tunisia, Algeria, Libya, Turkey				> 25+ million
2021	Tropical Storm	10/31/21	11/07/21	Wanda	Atlantic Canada, Bermuda, Azores				> 25+ million
2021	Earthquake	11/14/21	11/14/21		Iran				> 25+ million
2021	Tropical Cyclone	12/14/21	12/18/21	Rai (Odette)	Caroline Islands, Palau, Philippines				> 25+ million
Source: Munich Re's NAT CAT Service, Swiss Re Sigma and Aon Benfield									

Draft: 12/29/21

Capital Adequacy (E) Task Force
Virtual Meeting
December 20, 2021

The Capital Adequacy (E) Task Force met Dec. 20, 2021. The following Task Force members participated: Judith L. French, Chair, represented by Tom Botsko (OH); Cassie Brown, Vice Chair, represented by Mike Boerner and Rachel Hemphill (TX); Lori K. Wing-Heier represented by Wally Thomas (AK); Jim L. Ridling represented by Charles Hale (AL); Ricardo Lara represented by Thomas Reedy (CA); Andrew N. Mais represented by Kathy Belfi (CT); David Altmaier represented by Virginia Christy and Ray Spudeck (FL); Doug Ommen represented by Mike Yanacheak (IA); Dana Popish Severinghaus represented by Vincent Tsang (IL); Vicki Schmidt represented by Tish Becker (KS); Sharon P. Clark represented by Russell Coy (KY); Grace Arnold represented by Fred Andersen (MN); Chlora Lindley-Myers represented by William Leung (MO); Mike Causey represented by Jackie Obusek (NC); Eric Dunning represented Michael Muldoon (NE); Mike Kreidler represented by Steve Drutz (WA); and Nathan Houdek represented by Amy Malm (WI). Also participating were: Philip Barlow (DC); Kevin Clark (IA); Lindsay Crawford and Justin Schrader (NE); and Bill Carmello (NY).

1. Discussed the RBC Investment Risk and Evaluation (E) Working Group

Mr. Botsko said the Financial Condition (E) Committee recently adopted the formation of the Risk-Based Capital (RBC) Investment Risk and Evaluation (E) Working Group. He asked if there are any questions on the charges of the Working Group. He also mentioned that two tasks were sent down from the Committee for the Working Group: 1) follow-up on Phase II of the Moody's bond study, which is a modernization of the analysis; and 2) review *Statement of Statutory Accounting Principles (SSAP) No. 43—Loan-Backed and Structured Securities* in regard to residual tranches and the potential for an extremely high-risk default and that impact on RBC. The Statutory Accounting Principles (E) Working Group recently adopted changes to have this investment move from Schedule D reporting to Schedule BA.

Mr. Barlow added that it would be important to have members of the RBC Investment Risk and Evaluation (E) Working Group include members from the Health Risk-Based Capital (E) Working Group, the Life Risk-Based Capital (E) Working Group, the Property and Casualty Risk-Based Capital (E) Working Group, the Valuation of Securities (E) Task Force, and the Statutory Accounting Principles (E) Working Group to further promote coordination between the working groups under the Financial Condition (E) Committee.

Mr. Botsko said past referrals that were tabled by the Capital Adequacy (E) Task Force will be prioritized by the RBC Investment Risk and Evaluation (E) Working Group, and a long-term goal of the Working Group will be to conduct a holistic review of the investment schedules in the RBC formulas and coordinate consistency where it is warranted or categorize the investments in a consistent manner.

Mr. Carmello asked if the RBC Investment Risk and Evaluation (E) Working Group would be defining what a bond is and whether other assets would be considered if they were not considered a bond. Mr. Botsko said the Working Group should be looking at the investments as a whole (e.g., the residual tranches are currently treated as a bond, but that does not mean it will be treated that way in the future; it may be treated as an equity investment). Mr. Clark said he has joined the Working Group, been heavily involved as vice chair of the Statutory Accounting Principles (E) Working Group and the Valuation of Securities (E) Task Force, and can help with the coordination of the groups. Mr. Spudeck confirmed Florida's involvement with the RBC Investment Risk and Evaluation (E) Working Group, as well as Mr. Boerner and other members with investment expertise for Texas. Mr. Leung said Missouri will be participating, as well as Mr. Andersen from Minnesota who has been following on the reserve side. Mr. Tsang confirmed his membership to the Working Group. Ms. Crawford confirmed her and Mr. Schrader's participation, as well as others on her staff that have experience with macroprudential efforts that will be useful to the Working Group. Mr. Botsko said any interested parties should reach out to Jane Barr (NAIC) to be included on the list for meeting notifications. Edward L. Toy (Risk & Regulatory Consulting LLC) said he would be happy to assist with historical RBC investment schedules, and he suggested that the Working Group look at the inconsistencies regarding granularity between the life formula and the property/casualty (P/C) and health formulas. Mr. Botsko concurred that this is an important issue, and the Affiliate Investment Ad Hoc Group will be referring its proposals to the Health Risk-Based Capital (E) Working Group, the Life Risk-Based Capital (E) Working Group, the Property and Casualty Risk-Based Capital (E) Working Group, and the Capital Adequacy (E) Task Force for further discussion on when inconsistencies are warranted. Mr. Barlow said that specific topic should occur at the task force level.

Ms. Barr said a call is tentatively set for Jan. 12, 2022, and will be a joint call with the Financial Condition (E) Committee. The Committee web page has been set up for the RBC Investment Risk and Evaluation (E) Working Group, and the call information will be posted.

Having no further business, the Capital Adequacy (E) Task Force adjourned.

[12_CapitalAdequacyTFmin.docx](#)

Draft Pending Adoption

Attachment Three
Capital Adequacy (E) Task Force
3/28/22

Draft: 3/24/22

Health Risk-Based Capital (E) Working Group
Virtual Meeting (*in lieu of meeting at the 2022 Spring National Meeting*)
March 18, 2022

The Health Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met March 18, 2022. The following Working Group members participated: Steve Drutz, Chair (WA); Matthew Richard, Vice Chair, and Sean Fulton (TX) Wanchin Chou and Stephen Flick (CT); Kyle Collins (FL); Tish Becker (KS); Danielle Smith (MO); Michael Muldoon and Lindsay Crawford (NE); Ergys Shanaj (NY); and Jeffery Smith (PA). Also participating was: Tom Botsko (OH).

1. Adopted is Feb. 25, 2022; Jan. 28, 2022; and Dec. 16, 2021, Minutes

The Working Group met Feb. 25, 2022; Jan. 28, 2022; and Dec. 16, 2021. During these meetings, the Working Group took the following action: 1) exposed and referred the Health Test Language Proposal to the Blanks (E) Working Group; 2) exposed and referred a memo to the Health Actuarial (B) Task Force regarding asset adequacy testing; 3) adopted proposal 2021-18-H as modified for instructions in evaluating the investment yield adjustment in the underwriting risk factors; 4) received and exposed the American Academy of Actuaries (Academy) report on the H2 – Underwriting Risk component; and 5) reviewed the investment yields of the six-month U.S. Treasury bonds for the investment income adjustment.

Mr. Chou made a motion, seconded by Mr. Muldoon, to adopt the Working Group's Feb. 25, 2022 (Attachment Three-A); Jan. 28, 2022 (Attachment Three-B); and Dec. 16, 2021 (Attachment Three-C) minutes. The motion passed unanimously.

2. Discussed the Academy's H2 – Underwriting Risk Component Report

Mr. Drutz said the Academy's H2 – Underwriting Risk report was exposed for a 45-day comment period, and no comments were received. The Academy outlined six options for better aligning the H2 risk factors to economic risk: 1) refresh factors based on updated insurer data; 2) develop factors at a more granular product level; 3) develop factors specific to more relevant block sizes and consider indexing factors for cut points to change over time; 4) model risk factors over an NAIC-defined prospective time horizon with a defined safety level that can be refreshed regularly; 5) refresh the managed care credit formula and factors to be more relevant and reflective of common contracting approaches and other risk factors associated with these contracting approaches; and 6) analyze long-term care insurance (LTCI) underwriting performance to create a more nuanced set of risk factors that considers pricing changes over time.

Mr. Muldoon said the Academy laid out several other methodologies in their report, such as Best's Capital Adequacy Relativity (BCAR), the property/casualty (P/C) risk-based capital (RBC) formula, etc. He asked if there would be any follow-up or educational sessions on the varying methodologies evaluated by the Academy to gain a better understanding that could be done simultaneously with moving forward to evaluate what data would be needed. Derek Skoog (Academy) said the Academy could provide a presentation on the BCAR and the P/C RBC formula approach, as well as more detailed suggestions for how the factors could be updated considering these alternative approaches. He said the Academy worked with AM Best to gain an understanding of how those factors were developed, and he suggested that the Academy may also be willing to present to the Working Group also. Mr. Chou suggested that the Working Group had an educational session before moving forward with the next

Draft Pending Adoption

Attachment Three
Capital Adequacy (E) Task Force
3/28/22

steps. Mr. Muldoon asked if there is a way to compare what a company might look like under the BCAR versus the current health RBC formula. Mr. Botsko said it is a great idea to have the discussion; however, RBC is about minimum solvency standards, and the BCAR is based on more of a going concern perspective, which is a little bit different than RBC. Mr. Drutz said it is his hope that as these conversations move forward, it will help the Working Group understand the purposes and the differences for those purposes.

The Working Group agreed to schedule a call for an educational session on the various methodologies prior to requesting that the Academy move forward.

3. Adopted its 2022 Working Agenda

Mr. Drutz said each year, the Working Group reviews the working agenda for the upcoming year based on its priorities and needs. He provided a summary of the changes: 1) combined items 26 and 27 into one item and changed the expected completion date to “Ongoing”; 2) updated the priority status and expected completion for item 28; 3) updated the expected completion and working agenda description for item 30; 4) combined items 31, 34, and 36 into one item and updated the expected completion date; 5) updated the expected completion dates for items 32 and 33; and 6) updated the working item description for item 35.

Mr. Chou made a motion, seconded by Mr. Muldoon, to adopt its 2022 working agenda. The motion passed unanimously.

Having no further business, the Health Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/Spring 2022 National Meeting/ Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) TF/Health Risk-Based Capital (E) WG

Draft: 3/9/22

Health Risk-Based Capital (E) Working Group
Virtual Meeting
February 25, 2022

The Health Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Feb. 25, 2022. The following Working Group members participated: Steve Drutz, Chair (WA); Wanchin Chou and Stephen Flick (CT); Kyle Collins (FL); Tish Becker (KS); Debbie Doggett and Danielle Smith (MO); Tom Dudek (NY); and Aaron Hodges and Matthew Richard (TX).

1. Referred the Health Test Language Proposal to the Blanks (E) Working Group

Mr. Drutz said the Working Group re-exposed the Health Test Language Proposal for 15 days, which included minor modifications to add further clarity to the language, and no comments were received.

Mr. Dudek made a motion, seconded by Mr. Chou, to refer the Health Test Language Proposal (Attachment Three-A1) to the Blanks (E) Working Group. The motion passed unanimously.

2. Referred a Memo to the Health Actuarial (B) Task Force

Mr. Drutz said the referral letter to the Health Actuarial (B) Task Force was exposed for 15 days, and no comments were received. He said the referral asks the Task Force to consider adding a sentence to *Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) for long-term care (LTC) business that would state that regardless of the blank an entity files, asset adequacy testing is required if the criteria are met.

Ms. Doggett made a motion, seconded by Ms. Becker, to refer the memo (Attachment Three-A2) to the Health Actuarial (B) Task Force. The motion passed unanimously.

3. Adopted Proposal 2021-18-H-Modified

Mr. Drutz said proposal 2021-18-H was re-exposed with alternative language for a 15-day public comment period, and no comments were received. The alternative language provides additional clarity for the time in which the Working Group will evaluate the investment yield prior to considering an adjustment.

Mr. Chou made a motion, seconded by Mr. Dudek, to re-adopt proposal 2021-18-H-MOD with the alternative language. The motion passed unanimously.

4. Discussed Other Matters

Mr. Drutz asked for a volunteer to hold the vice chair position. He said if more than one person volunteers, a vote would be held.

Having no further business, the Health Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/Spring 2022 National Meeting/ Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) TF/Health Risk-Based Capital (E) WG

NAIC BLANKS (E) WORKING GROUP

Blanks Agenda Item Submission Form

<p style="text-align: right;">DATE: <u>11-3-21</u></p> <p>CONTACT PERSON: <u>Crystal Brown</u></p> <p>TELEPHONE: <u>816-783-8146</u></p> <p>EMAIL ADDRESS: <u>cbrown@naic.org</u></p> <p>ON BEHALF OF: <u>Health Risk-Based Capital (E) WG</u></p> <p>NAME: <u>Steve Drutz</u></p> <p>TITLE: <u>Chair</u></p> <p>AFFILIATION: <u>WA Office of the Insurance Commissioner</u></p> <p>ADDRESS: _____</p>	<p style="text-align: center;">FOR NAIC USE ONLY</p> <p>Agenda Item # _____</p> <p>Year <u>2022</u></p> <p>Changes to Existing Reporting []</p> <p>New Reporting Requirement []</p> <p style="text-align: center;">REVIEWED FOR ACCOUNTING PRACTICES AND PROCEDURES IMPACT</p> <p>No Impact []</p> <p>Modifies Required Disclosure []</p> <p style="text-align: center;">DISPOSITION</p> <p>[] Rejected For Public Comment</p> <p>[] Referred To Another NAIC Group</p> <p>[] Received For Public Comment</p> <p>[] Adopted Date _____</p> <p>[] Rejected Date _____</p> <p>[] Deferred Date _____</p> <p>[] Other (Specify) _____</p>
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BLANK(S) TO WHICH PROPOSAL APPLIES

- | | | |
|---|---|--------------------------------------|
| <input type="checkbox"/> ANNUAL STATEMENT | <input checked="" type="checkbox"/> INSTRUCTIONS | <input type="checkbox"/> CROSSCHECKS |
| <input type="checkbox"/> QUARTERLY STATEMENT | <input type="checkbox"/> BLANK | |
| <input checked="" type="checkbox"/> Life, Accident & Health/Fraternal | <input type="checkbox"/> Separate Accounts | <input type="checkbox"/> Title |
| <input checked="" type="checkbox"/> Property/Casualty | <input type="checkbox"/> Protected Cell | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Health | <input type="checkbox"/> Health (Life Supplement) | |

Anticipated Effective Date: _____

IDENTIFICATION OF ITEM(S) TO CHANGE

Revise the Health Annual Statement Test language

REASON, JUSTIFICATION FOR AND/OR BENEFIT OF CHANGE**

The purpose of the change is to move those filers who write predominantly health business and file on the life blank to begin filing on the health blank.

NAIC STAFF COMMENTS

Comment on Effective Reporting Date: _____

Other Comments:

The Health Test Ad Hoc Group of the Health Risk-Based Capital (E) Working Group continues to discuss and review any potential modifications to premium and reserve ratios. The group will continue to evaluate if there should be changes and if so, will propose this to the Blanks (E) Working Group in a separate proposal for consideration in future years.

The references to the Life & Property & Casualty General Interrogatories were changed from pulling from RBC to instead pull from the Analysis of Operations By Lines of Business – Accident and Health and Underwriting & Investment Exhibit, Part 1B, respectively. The life General Interrogatory references will be further updated if proposal [2021-17BWG](#) is adopted.

12-16-21 – Exposed to the Health and Life Risk-Based Capital (E) Working Groups for 40 days.

1-5-22 – Revised Health Annual Statement Instructions – General Interrogatories – Line 2.1 – Premium Numerator for additional clarity.

1-27-22 – Revised the Life and P/C Annual Statement Instructions – General Interrogatories for the Reserve Numerator.

1-28-22 – Two comment letters received. Re-exposed to the Health and Life Risk-Based Capital (E) Working Groups for changes to the Reserve Numerator for 15 days. Comments due 2-14-22.

2-14-22 – No comments were received.

2-25-22 – Health Risk-Based Capital Working Group agreed to refer the proposal to the Blanks (E) Working Group for exposure and consideration.

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

Revised 7/18/2018

Health

GENERAL

The annual statement is to be completed in accordance with the *Annual Statement Instructions* and *Accounting Practices and Procedures Manual* except to the extent that state law, rules or regulations are in conflict with these publications. In cases of conflict, the health annual statement will be filed pursuant to such state's filing requirements. The domiciliary state's insurance regulatory authority shall maintain full discretion in determining which NAIC annual statement blank must be filed. The annual statement blank filed with the domiciliary state shall be the blank submitted to, and maintained by, the NAIC, and barring conflict as described above, should be filed with all jurisdictions in which the reporting entity is licensed.

1. Health Statement Test:

If a reporting entity completes the health annual statement for the reporting year, the reporting entity must complete the Health Statement Test.

The Health Statement Test is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers' compensation, accidental death and dismemberment policies and long-term care policies.

Passing the Test:

A reporting entity is deemed to have passed the Health Statement Test if the values for the premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.

Failing the Test:

If a reporting entity, licensed as a life, accident and health or property and casualty insurer in its domiciliary state, is required to file the health annual statement for the reporting year and does not pass the Health Statement Test in the reporting year, it will revert to the annual statement form and risk-based capital report associated with the type of license held in its domestic state in the first quarter of the second year following the reporting year. If a reporting entity, licensed as a health insurer in its domiciliary state, is required to file the health annual statement for the reporting year and does not pass the Health Statement Test in the reporting year, it should continue to file the health annual statement.

Variances from following these instructions:

If a reporting entity's domestic regulator requires the reporting entity to complete an annual statement form and risk-based capital report that differs from these instructions, the domestic regulator shall notify the reporting entity in writing by June 1 of the year following the reporting year in which a Health Statement Test is submitted.

General Interrogatories

- This General Interrogatory is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers' compensation, accidental death and dismemberment policies and long-term care policies.

All reporting entities should file the test.

Premium and reserve information is obtained from the annual statement sources referenced on the form or from the related risk-based capital report for the corresponding premium descriptions relating to the current and prior reporting periods.

Item	Description	Reporting Year Annual Statement Data	Prior Year Annual Statement Data
2.1	Premium Numerator	Health Premium values listed in the Analysis of Operations by Lines of Business (Gain and Loss Exhibit), Line 1, Column 1 through Column 9 (in part excluding for credit A&H and dread disease coverage, LTC, Disability Income), Column 10 of the reporting year's annual statement of the reporting year's annual statement.	Health Premium values listed in the Analysis of Operations by Lines of Business (Gain and Loss Exhibit), Line 1, Column 1 through Column 9 (excluding in part for credit A&H and dread disease coverage, LTC, Disability Income) Column 10 of the reporting year's annual statement of the reporting year's annual statement.
2.2	Premium Denominator	Net Premium Income Premium and Annuity Considerations (Page 4, Line 2, Column 2) of the reporting year's annual statement.	Premium and Annuity Considerations Net Premium Income (Page 4, Line 2, Column 2) of the prior year's annual statement.
2.3	Premium Ratio	2.1/2.2	2.1/2.2
2.4 (a)	Reserve Numerator	Health Reserve – Underwriting and Investment Exhibit, Part 2B (Column 3 + 4, Line 13 minus Line 11) exclude Line 10 health care receivables, dread disease coverage, and credit A&H + Part 2D (Line 8, Column 1 minus Column 9) include stand-alone health care related plans only (i.e. stand-alone prescription drug plans, etc.), exclude dread disease coverage, credit A&H, LTC, Disability Income, etc. of the reporting year's annual statement.	Health Reserve – Underwriting and Investment Exhibit, Part 2B (Column 3 + 4, Line 13 minus Line 11) exclude Line 10 health care receivables, dread disease coverage, and credit A&H + Part 2D (Line 8, Column 1 minus Column 9) include stand-alone health care related plans only (i.e. stand-alone prescription drug plans, etc.), exclude dread disease coverage, credit A&H, LTC, Disability Income, etc. of the reporting year's annual statement.
2.5	Reserve Denominator	Claims Unpaid and Aggregate Reserves (Page 3, Column 3, Lines 1 + 2 + 4 + 7) of the reporting year's annual statement.	Claims Unpaid and Aggregate Reserves (Page 3, Column 3, Lines 1 + 2 + 4 + 7) of the prior year's annual statement.
2.6	Reserve Ratio	2.4/2.5	2.4/2.5

- (a) Alternative Reserve Numerator – Alternative Reserve Numerator – Company records may be used to adjust the reserve numerator to provide consistency between the values reported in the reserve numerator (2.4) and the premium numerator (2.1).

Life, Accident and Health /Fraternal

Health Test

GENERAL

The annual statement is to be completed in accordance with the *Annual Statement Instructions and Accounting Practices and Procedures Manual* except to the extent that state law, rules or regulations are in conflict with these publications. In cases of conflict, the life, accident and health annual statement will be filed pursuant to such state's filing requirements. The domiciliary state's insurance regulatory authority shall maintain full discretion in determining which NAIC annual statement blank must be filed. The annual statement blank filed with the domiciliary state shall be the blank submitted to, and maintained by, the NAIC, and barring conflict as described above, should be filed with all jurisdictions in which the reporting entity is licensed.

1. **Health Statement Test:**

If a reporting entity is licensed as a life and health insurer and completes the life, accident and health annual statement for the reporting year, the reporting entity must complete the Health Statement Test. However, a reporting entity that is required to also file the Separate Accounts Statement is not subject to the results of the Health Statement Test, and should continue to complete the life, accident and health/fraternal blank.

The Health Statement Test is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers' compensation, accidental death and dismemberment policies and long-term care policies.

Passing the Test:

A reporting entity is deemed to have passed the Health Statement Test if:

The values for the **premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.**

AND

~~The entity passing Health Statement Test is licensed and actively issuing and/or renewing business in five states or less.~~

AND

~~At least seventy-five percent (75%) of the entity's current year premiums are written in its domiciliary state.~~

OR

~~The values for the premium and reserve ratios in the Health Statement Test equal 100% for both the reporting and prior year, regardless of the number of states in which the entity is licensed.~~

If a reporting entity is a) licensed as a life and health insurer; b) completes the Life, Accident and Health annual statement for the reporting year; and c) passes the Health Statement Test (as described above), the reporting entity must complete the health statement beginning with the first quarter's statement for the second year following the reporting year in which the reporting entity passes the Health Statement Test and must also file the corresponding risk-based capital report and the life supplements for that year-end.

Variations from following these instructions:

If a reporting entity's domestic regulator requires the reporting entity to complete an annual statement form and risk-based capital report that differs from these instructions, the domestic regulator shall notify the reporting entity in writing by June 1 of the year following the reporting year in which a Health Statement Test is submitted.

General Interrogatories

- This General Interrogatory is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers compensation, accidental death and dismemberment policies and long-term care policies.

All reporting entities should file the test.

Premium and reserve information is obtained from the annual statement sources referenced on the form or from the related risk-based capital report for the corresponding premium descriptions relating to the current and prior reporting periods.

Item	Description	Reporting Year Annual Statement Data	Prior Year Annual Statement Data
2.1	Premium Numerator	<p>Health Premium values listed in the the Analysis of Operations By Lines of Business – Accident and Health: statement value column (Column 1) of the reporting year's Life RBC report:</p> <p>Individual Lines: Usual and Customary Major Medical and Hospital Comprehensive (Individual & Group) – (Columns 1 & 2, Line 1) Medicare Supplement (Column 4, Line 1) Medicare Part D (Column 13 (in part), Line 1) Dental and Vision (Columns 5 & 6, Line 1) Medicare (Column 8, Line 1) Medicaid (including Medicaid Pass-Through Payments Reported as Premium) (Column 9, Line 1)</p> <p>Group Lines: Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium (Column 13 (in part), Line 1) Dental and Vision Federal Employee Health and Benefit Plan (Column 7, Line 1)</p>	<p>Health Premium values listed in the statement value column (Column 1) of the reporting year's Life RBC report Analysis of Operations By Lines of Business – Accident and Health:</p> <p>Individual Lines: Comprehensive (Individual & Group) – (Columns 1 & 2, Line 1) Usual and Customary Major Medical and Hospital Medicare Supplement (Column 4, Line 1) Medicare Part D (Column 13 (in part), Line 1) Dental and Vision (Columns 5 & 6, Line 1) Medicare (Column 8, Line 1) Medicaid (including Medicaid Pass-Through Payments Reported as Premium) (Column 9, Line 1)</p> <p>Group Lines: Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium (Column 13 (in part), Line 1) Dental and Vision Federal Employee Health and Benefit Plan (Column 7, Line 1)</p>

2.2	Premium Denominator	Premium and Annuity Considerations (Page 4, Line 1) of the reporting year's annual statement	Premium and Annuity Considerations (Page 4, Line 1) of the prior year's annual statement
2.3	Premium Ratio	2.1/2.2	2.1/2.2
2.4(a)	Reserve Numerator	Net A&H Policy and Contract Claims without Credit Health (Exhibit 8, Part 1, Line 4.4, Columns 9 and Column 11 (excluding Dread Disease, Disability Income and Long-Term Care)) plus Aggregate Reserves for A&H Policies without Credit Health (Exhibit 6, Column 1 less Columns 10, 11, 12 and Dread Disease included in Column 13) for Unearned Premiums (Line 1) and Future Contingent Benefits (Line 4)	Net A&H Policy and Contract Claims without Credit Health (Exhibit 8, Part 1, Line 4.4, Columns 9 and Column 11 (excluding Dread Disease, Disability Income, and Long-Term Care)) plus Aggregate Reserves for A&H Policies without Credit Health (Exhibit 6, Column 1 less Columns 10, 11, 12 and Dread Disease included in Column 13) for Unearned Premiums (Line 1) and Future Contingent Benefits (Line 4)
2.5	Reserve Denominator	Aggregate Reserve (Page 3, Column 1, Lines 1+2+4.1+4.2) minus additional actuarial reserves (Exhibit 6, Column 1, Lines 3+11 plus Exhibit 5, Misc. Reserves Section, Line 0799999)	Aggregate Reserve (Page 3, Column 1, Lines 1+2+4.1+4.2) minus additional actuarial reserves (Exhibit 6, Column 1, Lines 3+11 plus Exhibit 5, Misc. Reserves Section, Line 0799999)
2.6	Reserve Ratio	2.4/2.5	2.4/2.5

- (a) Alternative Reserve Numerator – Company records may be used to adjust the reserve numerator to provide consistency between the values reported in the reserve numerator (2.4) and the premium numerator (2.1).

Property/Casualty

Health Test

GENERAL

The annual statement is to be completed in accordance with the *Annual Statement Instructions and Accounting Practices and Procedures Manual* except to the extent that state law, rules or regulations are in conflict with these publications. In cases of conflict, the property and casualty annual statement will be filed pursuant to such state's filing requirements. The domiciliary state's insurance regulatory authority shall maintain full discretion in determining which NAIC annual statement blank must be filed. The annual statement blank filed with the domiciliary state shall be the blank submitted to, and maintained by, the NAIC, and barring conflict as described above, should be filed with all jurisdictions in which the reporting entity is licensed.

1. **Health Statement Test:**

If a reporting entity is licensed as a property and casualty insurer and completes the property and casualty annual statement for the reporting year, the reporting entity must complete the Health Statement Test.

The Health Statement Test is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers' compensation, accidental death and dismemberment policies and long-term care policies.

Passing the Test:

A reporting entity is deemed to have passed the Health Statement Test if:

The values for the premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.

~~AND~~

~~The entity passing Health Statement Test is licensed and actively issuing and/or renewing business in five states or less.~~

~~AND~~

~~At least seventy-five percent (75%) of the entity's current year premiums are written in its domiciliary state.~~

~~OR~~

~~The values for the premium and reserve ratios in the Health Statement Test equal 100% for both the reporting and prior year, regardless of the number of states in which the entity is licensed.~~

If a reporting entity is a) licensed as a property and casualty insurer; b) completes the property and casualty annual statement for the reporting year; and c) passes the Health Statement Test (as described above), the reporting entity must complete the health statement beginning with the first quarter's statement for the second year following the reporting year

in which the reporting entity passes the Health Statement Test and must also file the corresponding risk-based capital report and the property/casualty supplements for that year-end.

Variations from following these instructions:

If a reporting entity’s domestic regulator requires the reporting entity to complete an annual statement form and risk-based capital report that differs from these instructions, the domestic regulator shall notify the reporting entity in writing by June 1 of the year following the reporting year in which a Health Statement Test is submitted.

General Interrogatories

2. This General Interrogatory is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers compensation, accidental death and dismemberment policies and long-term care policies.

All reporting entities should file the test.

Premium and reserve information is obtained from the annual statement sources referenced on the form or from the related risk-based capital report for the corresponding premium descriptions relating to the current and prior reporting periods.

Item	Description	Reporting Year Annual Statement Data	Prior Year Annual Statement Data
2.1	Premium Numerator	<p>Health Premium values listed in the statement value-Net Premiums Written column (Column 4) of the reporting year’s P&C RBC report <u>U&I Part 1B:</u></p> <p><u>Individual Lines:</u> Usual and Customary Major Medical and Hospital Comprehensive (hospital and medical) (individual and group) (Lines 13.1 and 13.2) Medicare Supplement (Line 15.4) Medicare Part D (Line 15.9, in part) Dental and Vision (Lines 15.1 and 15.2) Medicare (Line 15.6) Medicaid (including Medicaid Pass-Through Payments Reported as Premium) (Line 15.5)</p> <p><u>Group Lines:</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium Dental and Vision Federal Employee Health and Benefit Plan (Line 15.8)</p>	<p>Health Premium values as listed in the statement value column (Column 1) of the prior year’s P&C RBC report:</p> <p><u>Individual Lines</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Dental and Vision</p> <p><u>Group Lines</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium Dental and Vision Federal Employee Health and Benefit Plan</p>
2.2	Premium Denominator	Premiums Earned (Page 4, Line 1) of the reporting year’s annual statement	Premium Earned (Page 4, Line 1) of the prior year’s annual statement
2.3	Premium Ratio	<u>2.1/2.2</u>	<u>2.1/2.2</u>
2.4(a)	Reserve Numerator	Part 2A, Unpaid Losses and Loss Adjustment Expenses (Columns 8+9, Lines 13+15 (excluding Line 15.3 Disability Income, Line 15.7 Long-Term Care, Line 15.9 Other Health - Dread Disease only)) plus Part 1A, Recapitulation of all Premiums (Columns 1+2, Lines 13+15 (excluding Line 15.3 Disability Income, Line 15.7 Long-Term Care, Line 15.9 Other Health - Dread Disease only)) of the reporting year’s annual statement.	Part 2A, Unpaid Losses and Loss Adjustment Expenses (Columns 8+9, Lines 13+15 (excluding Line 15.3 Disability Income, Line 15.7 Long-Term Care, Line 15.9 Other Health - Dread Disease only)) plus Part 1A, Recapitulation of all Premiums (Columns 1+2, Lines 13+15 (excluding Line 15.3 Disability Income, Line 15.7 Long-Term Care, Line 15.9 Other Health - Dread Disease only)) of the prior year’s annual statement.
2.5	Reserve Denominator	Unpaid Loss and LAE (Page 3, Column 1, Lines 1+2+3) plus Part 1A, Recapitulation of all Premiums (Line 35, Columns 1+2) of the reporting year’s annual statement.	Unpaid Loss and LAE (Page 3, Column 1, Lines 1+2+3) plus Part 1A, Recapitulation of all Premiums (Line 35, Columns 1+2) of the prior year’s annual statement.
2.6	Reserve Ratio	<u>2.4/2.5</u>	<u>2.4/2.5</u>

- (a) Alternative Reserve Numerator – Company records may be used to adjust the reserve numerator to provide consistency between the values reported in the reserve numerator (2.4) and the premium numerator (2.1).



MEMORANDUM

TO: Commissioner Andrew N. Mais (CT), Chair of the Health Actuarial (B) Task Force and
Fred Andersen (MN), Chair of the Long-Term Care Valuation (B) Subgroup

FROM: Steve Drutz (WA), Chair of the Health Risk-Based Capital (E) Working Group

DATE: Feb. 25, 2022

RE: AG 51 – Asset Adequacy Testing

The Health Risk-Based Capital (E) Working Group established the Health Test Ad Hoc Group in 2018 to review the health test language within the *Annual Statement Instructions* due to inconsistencies in reporting of health business across the different blanks, as well as a significant amount of health business reported on the life and fraternal blank. Currently, a company passes the health test if the following requirements are met:

- The values for the premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.

AND

- The entity passing the Health Statement Test is licensed and actively issuing and/or renewing business in five states or less.

AND

- At least 75% of the entity's current year premiums are written in its domiciliary state.

OR

- The values for the premium and reserve ratios in the Health Statement Test equal 100% for both the reporting and prior year, regardless of the number of states in which the entity is licensed.

The intent of the Ad Hoc Group was to evaluate if changes were warranted to the health test because of industry changes since its original development. The Ad Hoc Group has drafted a phase 1 proposal that will delete the requirements for an entity being licensed and actively issuing and/or renewing business in five states or less and at least 75% of the entity's current year premiums being written in their domicile state. The Ad Hoc Group is continuing to evaluate the current 95% premium and reserve ratios.

Through the evaluation and discussion of the 95% reserve ratio, there was a question brought up as to whether an entity would still be required to perform asset adequacy testing of long-term care (LTC)

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business if the entity moved from the life blank to the health blank. It is the Ad Hoc Group's understanding that asset adequacy testing is required, regardless of the blank if the criteria for asset adequacy testing are met. The Working Group is asking the Health Actuarial (B) Task Force to consider adding a sentence to *Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) that would indicate that regardless of the blank the entity files, asset adequacy testing is required by the entity if the criteria are met.

This clarification would help to make it abundantly clear that all companies with LTC exposure that are subject to asset adequacy testing would still be required to meet these requirements, regardless of the blank they are filing on.

If you have any questions regarding the suggested clarification, please contact Crystal Brown (cbrown@naic.org).

cc: Eric King, Crystal Brown

Draft: 3/9/22

Health Risk-Based Capital (E) Working Group
Virtual Meeting
January 28, 2022

The Health Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Jan. 28, 2022. The following Working Group members participated: Steve Drutz, Chair (WA); Wanchin Chou and Stephen Flick (CT); Kyle Collins (FL); Tish Becker (KS); Michael Muldoon (NE); Tom Dudek (NY); Kimberly Rankin (PA); and Aaron Hodges, Matthew Richard, and Sean Fulton (TX).

1. Discuss Comments Received on the Health Test Language Proposal

Mr. Drutz said the Health Test Language Proposal was exposed for 40 days on Dec. 16, 2021, and two comment letters (Attachment Three-B1) were received. He said the Health Test Ad Hoc Group met Jan. 5 and Jan. 25 to: 1) discuss the language in the premium numerator section of the Health General Interrogatories; and 2) review the comment letters. The Ad Hoc Group suggested a friendly amendment to the language that included removing “in part,” replacing it with “excluding,” deleting the sentence “Column 10 of the reporting year’s annual statement,” and adding “of the reporting year’s annual statement.” Mr. Drutz said the Ad Hoc Group believed these changes were not material but clarifying. He said additional questions were brought forward regarding the exclusion of disability income, long-term care (LTC), credit accident and health (A&H), and dread disease in the reserve numerator for the life and property/casualty (P/C) General Interrogatory instructions, and clarifying language was added to show that these items should be excluded from the numerator portion of the reserve ratio.

Mr. Richard said his comments were in relation to the presentation of the reserve ratio. He said the amounts in the numerator and denominator are pulled from different schedules, and it would be clearer if they could be pulled from the same schedules, where possible, to be more consistent. He said it would also help to understand what drives the results of the calculation. Mr. Drutz said the Ad Hoc Group found that Texas’ comments were very well founded; however, the Ad Hoc Group wanted to further review the premium and reserve ratio over the course of this year and utilize these suggestions in that review.

Ray Nelson (America’s Health Insurance Plans—AHIP) said AHIP is supportive of the language included in the exposure and the friendly amendment.

Hearing no objections, the Working Group agreed to re-expose the Health Test Language Proposal with the friendly amendment changes for a 15-day public comment period ending Feb. 14. The exposure will be distributed to both the Health Risk-Based Capital (E) Working Group and the Life Risk-Based Capital (E) Working Group.

2. Exposed a Referral Letter to the Health Actuarial (B) Task Force

Mr. Drutz said through the Health Test Ad Hoc Group’s evaluation and discussion of the 95% reserve ratio, a question was brought up as to whether an entity would still be required to perform asset adequacy testing of LTC business if the entity moved from the life blank to the health blank. He said the referral letter asks the Health Actuarial (B) Task Force to consider adding a sentence to *Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) that would indicate, regardless of the annual statement blank that the entity files, that asset adequacy testing is required by the entity if the criteria are met. He said this clarification would help to make it abundantly clear that all companies with LTC exposure that are subject to asset adequacy testing would still be required to meet these requirements, regardless of the blank they are filing on.

Hearing no objections, the Working Group agreed to expose the referral letter for a 15-day public comment period ending Feb. 14.

3. Received an Academy H2 – Underwriting Risk Report

Derek Skoog (American Academy of Actuaries—Academy) summarized the Academy's report "Request for Comprehensive Review of the H2 – Underwriting Risk Component and Managed Care Credit Calculation in the Health Risk-Based Capital Formula." He said that the Academy spent a fair bit of time discussing the factors themselves and the degree to which they have been updated since their inception, and it has investigated some of the significant changes that have taken place in the health insurance industry since the factors were originally contemplated. He said there have been changes in the claims distributions in the last 20 years; the high cost of beneficiaries and patients because of advances in medical care; asymmetric claims risk, as there may be limits on the level of profitability on health plans due to regulations; provider contracting; and the product basis and reform of the market for individual, small, and large group, as well as Medicare Advantage. He said there has been a lot that has changed in the industry, and the Academy wants to understand how others have evolved their views on underwriting risk in the health sector. He said to do this, the Academy spent quite a bit of time studying Best's Capital Adequacy Relativity (BCAR), the NAIC P/C Risk-Based Capital (RBC) formula, Solvency II, and the Department of Managed Health Care Tangible Net Equity (TNE) requirements. He said the Academy saw some consistent themes, particularly that most of those approaches take a more granular view of products and a few split-out pricing versus reserving risk. He said the BCAR, P/C RBC formula, and Solvency II tend to take a more contemporaneous view of underwriting risk; they evolve over time; and the factors tend not to be static for a long stretch of time.

Mr. Skoog said with that background, in terms of understanding how the industry has evolved and what other approaches have been, the Academy has produced six potential recommendations or changes for the Working Group's consideration: 1) refresh factors based on updated insurer data; 2) develop factors at a more granular product level; 3) develop factors specific to more relevant block sizes and consider any indexing factors for cut points to change over time; 4) model risk factors over an NAIC-defined prospective time horizon with a defined safety level that can be refreshed regularly; 5) refresh the managed care credit formula and factors to be more relevant and reflective of common contracting approaches and other risk factors associated with these contracting approaches; and 6) analyze long-term care insurance (LTCI) underwriting performance to create a more nuanced set of risk factors that considers pricing changes over time. He said the current theme is to bring the factors to reflect the current risk profile of underwriting strategies and approaches those insurers face today.

Mr. Muldoon said the six recommendations proposed by the Academy are a good set of recommendations, the points made regarding a more granular product level are well taken, and there is a lot of room to look at it in more granularity. Mr. Chou asked the Academy to provide a timeline and a path forward. Mr. Skoog said the path forward for items 1–5 is clear in that some of the approaches taken by the P/C RBC formula and a similar approach taken by the BCAR provide clarity for the underwriting approach of net written premium and a standard process for updating those factors based on safety levels observed in the industry. He said what will require more consideration is the data sources to be used. He said page 7 of the Annual Statement would be a good place to start because it already has many data fields that feed into the RBC formula. He said a longer-term goal would be to move towards the Accident and Health Policy Experience Exhibit level of detail. In the nearer term, a goal would be to mirror many of the approaches taken in the P/C RBC formula around thinking about underwriting risks and matching page 7 to that approach. He said the Academy could provide the Working Group with a work plan if requested. He said item 6 for LTC would require some additional study as to what that would look like because it is a challenging issue. Mr. Chou asked if there had been coordination between the various Academy groups to look at LTC. Mr. Skoog said the Academy connected internally, and there will need to be collaboration to make sure the right considerations are folded into any new risk factors.

Hearing no objections, the Working Group agreed to expose the report (Attachment Three-B2) for a 45-day public comment period ending March 16.

4. Reviewed the Investment Yields of Six-Month Treasury Bonds for Investment Income Adjustment in Underwriting Risk

Mr. Drutz said the Working Group adopted changes to the underwriting factors for year-end 2021 to incorporate an investment yield adjustment and adopted guidance into the instructions for the investment yield. The investment yield for the six-month treasury bond through the first four weeks of the month of January (Mondays were utilized as the basis day except for the week of Jan. 16 due to the holiday) remained below 0.5%, and as a result, there would be no changes to the factors for year-end 2022.

Mr. Drutz recommended that the Working Group consider modifying proposal 2021-18-H that was previously adopted on Dec. 16, 2021, to clarify the time period for which the investment yield is evaluated based on the previous analysis. He said alternative language was included in the proposal. He suggested that the proposal be re-exposed for a brief time period with the alternative language.

Hearing no objections, the Working Group agreed to re-expose proposal 2021-18-H (Attachment Three-B3) for a 15-day public comment period ending Feb. 14.

5. Discussed Other Matters

Mr. Drutz asked that any states interested in joining the Working Group please contact Crystal Brown (NAIC).

Having no further business, the Health Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/Spring 2022 National Meeting/ Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) TF/Health Risk-Based Capital (E) WG



January 24, 2022

Steve Drutz, Chair
Health Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

By Email to Crystal Brown at CBrown@NAIC.org and Steve Drutz at steved@oic.wa.gov

Re: Health Test Language Proposal Exposed on 12.16.21

Dear Mr. Drutz:

On behalf of the members of America's Health Insurance Plans (AHIP), we appreciate the opportunity to provide comments on the Health Test Language Proposal discussed (and exposed) during the Working Group's meeting on December 16, 2021.

AHIP is generally supportive of the language included in this December 16, 2021 exposure. Furthermore, we would like to express our appreciation to the Chair for including interested parties (including AHIP) and regulators during the discussion and evaluation process that has taken place on this topic at the ad hoc group level.

Thank you for the opportunity to provide these comments, and we look forward to continuing to work with the Health Risk-Based Capital (E) Working Group in the future.

Sincerely,

Bob Ridgeway
Bridgeway@ahip.org
501-333-2621

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January 21, 2022

Steve Drutz
Chair, Health Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners (NAIC)

Re: Request for Comprehensive Review of the H2—Underwriting Risk Component and
Managed Care Credit Calculation in the Health Risk-Based Capital Formula

Dear Mr. Drutz:

On behalf of the American Academy of Actuaries (Academy)¹ Health Solvency Subcommittee, I am pleased to provide this report to the National Association of Insurance Commissioners (NAIC) Health Risk-Based Capital (HRBC) (E) Working Group. This report is in response to the [request](#) from the working group to analyze and comprehensively review the H2—Underwriting Risk component and the managed care credit calculation in the health risk-based capital (RBC) formula.

1. Introduction

In this report, the subcommittee presents a discussion of the current H2 — Underwriting Risk factors, key changes affecting health insurers that have impacted underwriting risk since the factors were originally developed, alternative views of underwriting risk from other regulating entities, and a set of targeted recommendations for improving the H2 — Underwriting Risk factors.

Our approach surveyed other methods of evaluating risk, and in particular underwriting risk taken by other risk quantification formulas (e.g., health, life, property and casualty (P&C) RBC formulas; credit rating agencies) and summarized their respective merit for health underwriting risk. The subcommittee recommends a constructive dialogue with the NAIC's HRBC Working Group to determine the best approach before beginning detailed analysis and factor development.

¹ The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

2. Review of the H2 Risk Factor in Current HRBC Formula

History of H2 in Health Organizations' Risk- Based Capital Formula

In the early 1990s, the Academy fulfilled a request from the NAIC to assist in the development of a risk-based capital formula - similar to those in place for life Insurers and P&C Insurers - that could be applied to a variety of traditional and nontraditional risk-assuming enterprises in the health insurance space. The objective in developing an RBC formula was to calculate the minimum amount of capital that the reporting entity should hold to support the risk associated with the business venture. In doing so, monitoring and regulatory agencies would be able to identify entities that were exhibiting signals of financial weakness and could take steps to promote their solvency. The RBC formula was also to be constructed in such a way that results would be the same for companies engaged in the same health insurance business activity, regardless of organizational structure.

Over time, refinements have been made leading to today's health risk-based capital (HRBC) model. Like the life and P&C risk-based capital formulas, multiple risk categories are included in the calculation of the minimum capital amount for an entity. In the case of HRBC, five categories are employed (emphasis added to H2 - Underwriting Risk):

Category Title	Abbreviation	Definition
Insurance Affiliates and Misc. Other	H0	This is the risk from the declining value of insurance subsidiaries as well as risk from off-balance sheet and other miscellaneous accounts (e.g., deferred tax assets (DTAs)).
Asset Risk - Other	H1	This is the risk of asset losses due to default of principal and interest or fluctuation in market value.
Underwriting Risk	H2	This is the risk of underestimating liabilities from business already written or inadequately pricing business to be written in the coming year.
Credit Risk	H3	Creditor risk of not recovering receivable amounts owed
Business Risk	H4	This category includes several miscellaneous risks not captured elsewhere, such as those associated with administrative expenses, administrative services contracts/administrative services only (ASC/ASO) business, guaranty fund assessment, and excessive growth.

To develop the original H2 (underwriting risk) component of the HRBC formula, the Academy employed statistical modeling based on health insurance and provider data available at that time. Stochastic modeling was performed using a five-year modeling time horizon, and formulas and factors were developed to calculate capital levels that allowed each product to remain solvent in 95% of the modeled scenarios. Ultimately, the original modeling was used to develop relative risk values (RVs) for most lines of business which would be referenced by the NAIC to establish risk factors, based on the NAIC's risk tolerance.

Calculation of H2 in HRBC Formula

The total H2 risk charge is calculated through several sub-formulas within the HRBC calculation, denoted as XR013 through XR019. The following is a summary of each sub-formula that contributes to the overall calculation of H2 for a reporting entity:

XR013 — Underwriting Risk

For most health reporting entities, underwriting risk constitutes the largest share of the overall risk-based capital charge, representing the general risk of fluctuations in underwriting experience —i.e., the risk that premiums (which are an expected value of future costs and considerations) are insufficient to cover actual plan costs. In such a scenario, the next dollar of cost is funded by the reporting entity's capital and surplus. Depending on the policy type and the level of provider contracting, the reporting entity may not be fully exposed to this potential fluctuation in claims experience, as the risk may be transferred to another entity (e.g., a provider group or a reinsurer). However, this could introduce a separate and material credit risk that the assuming entity may default on its obligation(s).

To calculate the charge for this risk, six general lines of business are utilized:

1. Comprehensive Medical & Hospital
2. Medicare Supplement
3. Dental and Vision
4. Stand-alone Medicare Part D Coverage
5. Other Health Coverages
6. Other Non-Health Coverages

For each line of business, risk factors are applied to the reported incurred claims for the reporting entity, sourced from the Annual Statement. The risk factors are the same for all reporting entities, but generally decrease as the premiums for a particular line of business increases. Applying the risk factors to the estimated incurred claims generates Base Underwriting Risk RBC. See an illustration in Table 1 of the Underwriting Risk Factors by premium tier:

Table 1.

	\$0 - \$3 Million	\$3 - \$25 Million	Over \$25 Million
Comprehensive Medical & Hospital	0.1493	0.1493	0.0893
Medicare Supplement	0.1043	0.0663	0.0663
Dental & Vision	0.1195	0.0755	0.0755
Stand-Alone Medicare Part D Coverage	0.2510	0.2510	0.1510
Other Health	0.1300	0.1300	0.1300
Other Non-Health	0.1300	0.1300	0.1300

To the subcommittee’s collective knowledge, aside from the adoption of investment income adjustments into the Comprehensive Medical & Hospital, Medicare Supplement, and Dental and Vision factors in 2021, the premium tiers have not been adjusted over time to capture market dynamics that influence risk, such as medical cost growth.

A Managed Care Credit (sourced from XR018) is then applied to the Base Underwriting Risk RBC, which can reduce the risk charge for certain lines of business if the managed care contracts in place limit the financial risk of adverse claims fluctuations on the reporting entity.

The ultimate calculation of Net Underwriting Risk RBC compares the calculated Underwriting Risk (including the Managed Care Credit) to an Alternate Risk Charge that is dependent on the amount of risk borne by the reporting entity, after adjusting for any reinsurance arrangements.

XR014 — Annual Statement Source

This page contains no RBC calculations; however, it does illustrate to the user where information can be retrieved to perform RBC calculations on XR013. Some pieces of information are obtained from the reporting entity’s annual statement, while others must be sourced from internal company records (e.g., all premium and claims data for stand-alone Medicare Part D coverage).

XR015 — Other Underwriting Risk

This page contains the risk charge calculation for the following, where the risk charge, unless otherwise specified, is a risk factor applied to earned premium:

1. Business with rate guarantees split by a rate guarantee period of 15 to 36 months and a rate guarantee period of over 36 months
2. Federal Employees Health Benefits Program (FEHBP) and TRICARE, where the risk factors are applied to incurred claims
3. Stop Loss and Minimum Premium
4. Supplemental Benefits within Stand-Alone Medicare Part D Coverage, where the risk factors are applied to incurred claims
5. Medicaid pass-thru payments reported as premium
6. Disability income split by the first \$50 million in earned premium and earned premium over \$50 million for the following with the risk factor varying by premium tier:
 - a. Noncancellable morbidity risk
 - b. Other than non-cancellable morbidity risk
 - c. Credit monthly balance plans
 - d. Group long-term
 - e. Credit single premium with additional reserves
 - f. Credit single premium without additional reserves
 - g. Group short-term

For single premium credit insurance with additional reserves, the premium is reduced for the change in additional reserves held.

The premium and additional reserves used in the risk charge calculation are based on company records.

XR016 — Long-Term Care (LTC) Insurance Premium/Loss Ratio Experience

The majority of the risk charge is for morbidity risk plus an additional risk charge for rate risk on noncancellable LTC insurance. The rate risk factor is 0.100 for all noncancellable premium and the morbidity charge is 0.100 and 0.030 for all LTC insurance premiums up to \$50 million and over \$50 million, respectively.

Then, additional charges for morbidity risk are based on experience. The average loss ratio is calculated for the current and prior year. Actual claims are adjusted to the average loss ratio and this adjusted claim amount is used to calculate the risk charge. The risk charge is calculated as follows:

1. For the first \$35 million, the risk factor is 0.250 if current year premium is positive; otherwise, the factor is 0.370.
2. For adjusted claims in excess of \$35 million, the risk factor is 0.080 if current year premium is positive; otherwise, the factor is 0.120.
3. A risk factor of 0.050 is applied to LTC Insurance claim reserves.

The premium and claim information used in the risk charge calculation are based on company records.

XR017 — Limited Benefit Plan

This page contains the risk charge calculation for the following limited benefit plans:

1. Hospital Indemnity and Specified Disease
2. Accidental Death and Dismemberment
3. Other Accident
4. Premium Stabilization Reserves—this is a credit to RBC and it is limited to the total Underwriting RBC for all lines, excluding stand-alone Part D.

The premium and reserve information used in the risk charge calculation are based on company records.

XR018 — Underwriting Risk — Managed Care Credit

The managed care credit seeks to account for volatility in claims costs relative to the coverage period. For instance, if an actuary was aware of capitation rates during the rating cycle, that would improve the likelihood of rate adequacy.

The managed care credit calculation utilizes five factors that reflect the impact of different types of provider contracts on medical claim predictability and volatility. The factor associated with each contract category is applied to the level of incurred claims in that category and an overall discount or credit is calculated based on the relative claims weights. The discount factors have remained unchanged since they were first adopted.

For example, fully capitated provider contracts (i.e., when providers are accepting 100% of the underwriting risk) are generally assumed to provide a health insurer with substantial financial protection and, accordingly, the substantial credit noted in the below table. Other provider contracts may also provide the health insurer with a range of financial protection less than full capitation (e.g., from discounted fee-for-service contracts to partial capitation and/or withholding funds from the provider that may only be paid after financial results have been evaluated against the provider contract agreement). The factors in Table 2 that vary by type of provider contract reflect this range of financial protection for the health insurer.

Table 2.

Category	Credit
Category 0—Arrangements not Included in Other	0%
Category 1—Contractual Fee Payments	15%
Category 2—Bonus / Withhold Arrangements	0-25%
Category 3—Capitation	60%
Category 4—Non-Contingent Expenses and Aggregate Cost Arrangements and Certain PSO Capitated Arrangements	75%

As Medicare Part D was implemented in 2006, the managed care credit was adapted to include a credit for stand-alone Part D plans in 2009 to reflect the reduction in risk to health plans attributable to the various risk adjustment programs implemented in accordance with the Affordable Care Act (ACA).

XR019 — Calculation of Category 2 Managed Care Factor

Category 2 in the managed care credit has a scaling factor determined by how significant the bonus / withhold payments are relative to the total claims subject to these programs. For example, if providers have been paid a 20% bonus on contracts subject to bonus, the managed care credit applicable is 20%.

3. Evolution in Underwriting Risk Since Original Development of the H2 Risk Factor

Changes in Health Care Economics and Provider Systems

There has been considerable evolution in health economics since HRBC was first developed in the 1990s. The most obvious is the significant rise in the size of the health care sector, which has grown by 6.8% annually over the last 25 years², amounting to nearly a fourfold increase over that period. As part of that growth, there have been major regulatory and industry changes as well.

Changes in Claims Distributions

Among the many changes brought about by the ACA, is the distribution of claim cost risk. For instance, the elimination of annual and lifetime coverage limits, the elimination of medical underwriting, and the establishment of essential health benefits, while addressing issues from a public policy standpoint, have contributed to higher frequencies of high-cost individual claimants (often referred to as catastrophic claims).

Additionally, there has been significant progress made in modern medicine, both from a medical/surgical and prescription drug standpoint. These advanced procedures and drugs often serve a niche market and can command very high prices. For example, gene therapies driving \$1

² Center for Medicare and Medicaid Services (CMS) National Health Expenditure Data.

million or higher price tags have become more common, and that trend is likely to continue moving forward.

Asymmetric Claims Risks

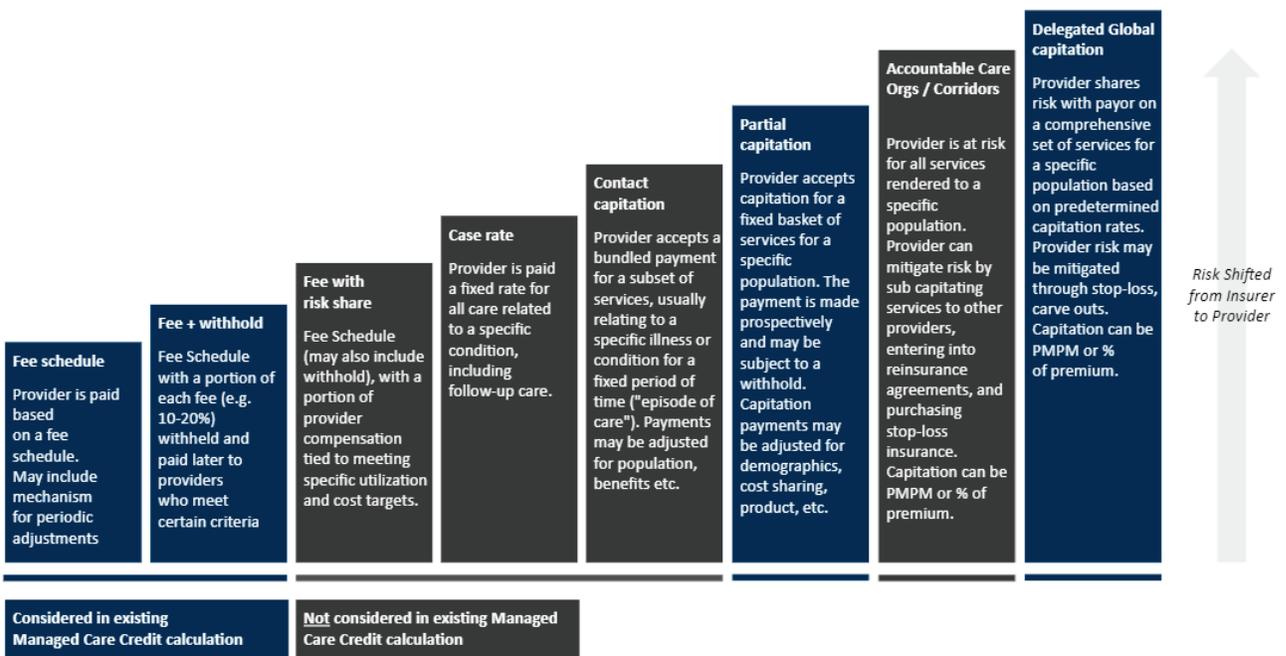
The profitability distribution for insurance carriers is often asymmetrical due to the introduction of minimum loss ratios and other risk sharing arrangements across many lines of business. In favorable years, carriers are required to rebate premiums to policy holders or government entities, while in unfavorable years they might have to absorb losses.

Provider Contracting Developments

The nature of insurer / provider relationships has also evolved significantly over the past 25 years. While fee-for-service payments are still common, there has been a significant increase in risk arrangements, particularly for government lines of business.

Insurance carriers have continued to move providers toward risk-based contracts as providers' risk tolerances have grown; frequently, this has led to improvement in member medical management and increasing insurer predictability of claims costs. Illustration 1 shows several new ways of contracting that are not currently contemplated in the formula.

Illustration 1.



Specific H2 Risk Considerations by Health Insurance Line of Business

Since the HRBC formula was developed, there have been significant changes in the lines of business that make up the health insurance industry. In addition to the introduction of the exchanges through the ACA, Medicare Advantage was implemented, and Medicaid Managed Care has become common for state Medicaid programs. Additionally, the LTC insurance market has changed materially as well.

Commercial Insured—Individual Market

The most significant event contributing to changes in underwriting risk in the individual market was the passage of the ACA in 2010 with the implementation largely phased in through calendar year 2014. Several changes affecting the individual health insurance underwriting risks include (not exhaustive):

- Elimination of annual and lifetime coverage limits
- Minimum medical loss ratio (MLR) requirement of 80%
- Pricing cycle requiring development and approval of rates well in advance of their implementation
- Increasingly robust rate review processes and provisions that influence the risk of adverse rate determinations and administrative actions (e.g., exchange exclusion)
- Elimination of pre-existing condition exclusions
- Revised and limited rating practices
- Risk mitigation programs (e.g., reinsurance, risk corridor, and risk adjustment mechanisms)

Commercial Insured—Small Group Market

Like the individual market, the commercial small group market was drastically altered by the ACA. Though similar changes were put in place (including the same minimum MLR requirement of 80%), it should be noted that usually the small group market is a separate risk pool from the individual market exhibiting its own risk characteristics.

Commercial Insured—Large Group Market and Self-Insured/Administrative Services

The ACA also affected commercial large group products, but to a lesser extent due to ERISA preemption of self-insured benefit programs. The minimum MLR requirement of 85% for large group insured coverage is somewhat more restrictive than the 80% minimums for individual and small group, reflective of the typically higher MLRs for large groups. Notably, there has been advancement in the type of medical insurance plans offered in the marketplace. At the time of original HRBC development, indemnity products were prevalent in the marketplace, with Health Maintenance Organization (HMO) plans offered by managed care organizations (MCOs). However, in the last 25 years, growth in preferred provider organizations (PPOs) and high-deductible health plans (HDHPs) have grown significantly. These products have different benefit

administration and provider payment characteristics than the indemnity products, which are far less prevalent today. For instance, per the Kaiser Family Foundation's 2021 Employer Health Benefits Survey,³ the proportion of covered workers enrolled in conventional (e.g., indemnity) health plans decreased from 26% in 1996 to ~1% in 2021. During that same period, enrollment in HDHPs, which were not tracked until 2006, has grown to 28%.

In addition, due to potential administrative cost savings of self-insured services and increases in employer risk appetite, there has been a shift from large group fully insured policies (loosely defined as groups with >100 employees) to self-insurance and analogs (e.g., minimum premium arrangements). From a payer underwriting risk perspective, this has reduced the proportion of claims expense and associated risk attributed to large employer groups. However, a corollary to this secular trend has been the growth in employer stop-loss products that hedge the claims risk to these clients.

Medicare

Since the creation of the original HRBC formula, four of the largest drivers of change impacting Medicare health insurer underwriting risk have been (1) the growth of the Medicare Population, (2) the creation of Medicare Part C with the Balanced Budget Act of 1997, (3) the creation of Part D prescription drug benefits and the modification of the Medicare Advantage managed care program with the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, and (4) Medicare provisions included in the ACA.

Under the Medicare Part C and Part D programs, beneficiaries can enroll for medical and/or prescription drug coverage under a private-sector payer. In return, the payer receives prospective, risk-adjusted capitation payments and member premiums. Under the ACA, payer capitation payments are tied to operational and clinical quality through the Star quality rating system, and a minimum medical loss ratio requirement of 85% was instituted, capping favorable payer surplus gains.

The net effect of these drivers has been an increase in Medicare spending, growth in the amount of Medicare underwriting risk borne by health payers, and increased complexity in the underwriting risk, due to the nature of risk adjustment, and quality and minimum loss ratio requirements. As a point of comparison, in 1998 under the prior Medicare HMO program, Medicare enrollment through private-sector plans was approximately 6 million.⁴ In 2020, approximately 24 million beneficiaries were served by Medicare Advantage. Medicare Advantage-share of enrollment had grown from 24% in 2010 to approximately 42% in 2021.⁵

³ <https://files.kff.org/attachment/Report-Employer-Health-Benefits-2021-Annual-Survey.pdf>

⁴ Squire, Daniel et al. *Group Insurance*, 7th Ed. Pg. 139.

⁵ [Medicare Advantage in 2021: Enrollment Update and Key Trends | KFF](#)

Medicaid and CHIP

Since the inception of the HRBC formula, there has been an overall expansion of the Medicaid program. In addition, there has been a shift to Medicaid Managed Care programs managed by private health payers, as opposed to state-based fee-for-service programs. Two drivers of change impacting health insurer underwriting risk have been (1) the enactment of Title XXI of the Social Security Act, which created the State Children's Health Insurance Program (CHIP), and (2) Medicaid enrollment expansions provided for in the ACA. As of 2019, 54.2% of all Medicaid expenditures were managed care and provider capitation payments.

Each state is unique in their requirements for Medicaid Managed Care products (i.e., risk adjustment protocols, minimum medical loss ratios, risk corridors, etc.). While a state is not required to establish a minimum medical loss ratio for Medicaid MCOs, CMS requires that (i) each contract calculate and report its medical loss ratio and (ii) for any state that does establish a minimum medical loss ratio, that the minimum may not be less than 85%.

Long-Term Care (LTC) Insurance

There are several characteristics of the LTC insurance market that have evolved since the product's inception that affect its underwriting risk profile.

When LTC insurance was initially developed, there was little to no applicable experience to use to price the product. As experience developed, the accuracy of the pricing has improved. This has led to three market segments: original (oldest generation) products that are the most underpriced, a middle generation with improved pricing, and a newer generation based on more credible experience leading to more appropriate pricing. The accuracy of the pricing, or lack thereof, impacts the level of rate increases being requested by the insurers, with the older blocks of business typically needing higher rate increases than the newer blocks.

With some exceptions, most insurers are managing closed blocks of business. There are challenges to managing the rates on closed blocks, particularly on the older and smaller blocks. On blocks that are smaller and older, even very large rate increases will generally have little to no impact to the financials of the insurer.

Large, actuarially justified rate increases are typically not being approved by the regulators, and in some cases, not being requested by insurers, due to concern for the impact on the consumer. This is a key difference between LTC insurance repricing and other health blocks. With other health blocks, there typically is not a large discrepancy between actuarially justified, requested, and approved rate increases, as is seen with LTC insurance. Also, because rate increases have been consistently occurring, there may be "rate-increase fatigue" on the part of regulators – leading to potentially fewer or less approvals of rate increases.

Other characteristics and developments in the LTC insurance market that affect the risk profile are the following:

- More credible data now exists for mortality and morbidity assumptions, used in rate increase and cash flow testing projections.
- The persistent low interest rate environment suppresses investment income.
- Possible increased litigation against insurers and reputational risk due to rate actions.
- Existence of LTC insurance hybrid products that have a different risk profile than stand-alone LTC insurance products.
- Actuarial Guideline (AG)-51—*The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves*.

These developments in the market affect the amount of risk that an insurer bears and may impact the fit-for-purpose of the current RBC H2 framework. Insurers will have different risk profiles that are dependent on the age of the business, the adequacy of rates, and the ability to receive future rate increases, none of which are fully addressed in the current framework.

4. Alternative Views of Underwriting Risk

There are a number of other capital evaluation/requirement frameworks that consider underwriting risk. Based on the subcommittee’s review, several of these frameworks utilize risk quantification measures that would be valuable to consider as part of the health underwriting risk formula. The frameworks we found most instructive were Best’s Capital Adequacy Relativity (BCAR), P&C RBC, Solvency II, and DMHC⁶ Tangible Net Equity (TNE) requirements.

BCAR

There are two main components of risk charges for underwriting risk within BCAR—net earned premium risk and reserve risk. The following summaries are based largely on descriptions of the BCAR methodology provided by AM Best.

Net Earned Premium Risk

The net premiums risk is related to risk of underwriting losses on a book of business written in the next year. AM Best created an industry database of profit and losses for each line of business, using each insurer’s historical underwriting profit or loss based on the actual reported results. The industry database was then split based on the size of the net premiums written for that line of business, and statistical methods were applied to create distributions of profit and loss ratios.

The following blocks of business are evaluated separately:

⁶ California Department of Managed Health Care

Indiv Hosp Maj Med	Group Hosp Maj Med
Indiv Hosp Indem ADD	Group Hosp Indem ADD
Indiv Medicare Supp	Group FEHBP
Indiv Medicare Adv plus Choice	Group Dental
Indiv Medicaid	Group Vision
Indiv Medicare Part D	Group Disability - LTD
Indiv Medicare Part D Supp	Group Disability - STD
Indiv Fee for Service	Group Long Term Care
Indiv Disability - Non Can	Group Dread Disease
Indiv Disability - Other IDI	Group Stop Loss and Min Prem
Indiv Long Term Care	Group Lim Benefit
Indiv Dread Disease	Group Student
	Credit
	Group Prem Equiv ASO Stop Loss
	Workers' Comp Carve Out Prem
	All Other (Group&Indiv)

When calculating company-specific capital requirements, the industry factors can be adjusted based on the rating unit's own historical profitability. Implicitly, this assumes that historical underwriting performance is correlated with future underwriting performance. The company-specific factors are based on the most recent three years of profitability and can adjust the base factors by as much as 20% (positively or negatively). Like the H2 component of the health RBC formula, the rating unit's current year written premium is used in the model as a proxy for the premium to be written next year. Using this assumption, the company-specific factors are applied to current year premium to calculate the capital requirement.

Reserving Risk

Unlike health RBC, BCAR includes a reserving risk component as part of underwriting risk. The applied risk charges are intended to cover the possibility of negative reserve development due to adverse claims experience. Like premium risk, AM Best's reserve risk factors are based on an industry database of each company's reserve adequacy generated from the annual statements by line of business and a company's specific experience can adjust the base factor by as much as 20%. The BCAR formula utilizes the following reporting segments to develop reserving risk factors.

Group A&H	Workers Comp Carve-Out Liability
Credit A&H	Comprehensive
Collectively Renewable	Medicare Supplement
Non-Cancellable	Dental
Guaranteed Renewable	Vision
Non-Renewable	Fed Employees
Other Accident	Title XVIII Medicare
All Other	Title XIX Medicaid
	Other Health

Diversification Credit

AM Best calculates diversification factors using correlation matrices based on industry-aggregated data across lines of business—for both premium risk and reserving risk. This intent behind the calculation is that often underwriting profits and losses in one line of business might offset underwriting profits and losses in another line of business. Similar to written premium, because reserves are largely set based on line of business, adverse or favorable reserve development for one line of business might offset development for another line of business.

Managed Care Credit

The managed care credit within the BCAR formula reflects the reduction in the overall premium risk charge for companies with managed care arrangements that reduce uncertainty regarding future claim payments.

This credit is reduced for the risk that the MCO will pay the capitation to a provider but not receive the agreed-upon services and will encounter unexpected expenses in arranging for alternative coverage, essentially introducing a credit risk that a provider might default on its obligations. This credit risk charge is based on the contractual relationship between the MCO and a provider. Higher credit risk charges apply to capitation payments made to unaffiliated or third-party care providers than to capitation payments made to affiliated care providers.

P&C RBC

Similar to BCAR, P&C underwriting risk is broken into two components in the P&C RBC formula: reserves and net written premiums.

Reserve Risk

The reserve risk RBC is developed by multiplying a set of RBC factors, which are discounted for investment income and adjusted for each individual company's own relative experience of its net reserves for each line of business. The reserve risk is also adjusted downward with a credit for diversification among the lines of business.

The major lines of business largely correspond to the breakdowns in the annual statement (e.g., the Underwriting and Investment Exhibit). Calculations for some, generally smaller, lines are combined.

Net Written Premium

The net written premium component is developed by multiplying a risk factor (based on an analysis historical industry-wide underwriting performance at the 87.5th percentile) by the current year's net written premiums, by line of business. The actual risk charge is based on the excess of a discounted combined ratio adjusted for investment income over 100%. As with the reserve risk factors, individual company experience is also considered in computing the RBC factor.

Solvency II

Solvency II divides health insurance into Similar to Life Techniques (SLT) and Non-Similar to Life Techniques (Non-SLT)—the distinction based on how products are priced. Products like long-term care insurance and individual disability income insurance would likely be examples of SLT Health, while typical medical products would be examples of Non-SLT Health.

The nature of how the Solvency II capital requirement is constructed is very different between SLT Health and Non-SLT Health. Solvency II discusses three main risks for Non-SLT Health:

1. Premium Risk
2. Reserve Risk
3. Catastrophe (CAT) risk

The time horizon for Solvency II is one year. In keeping with that, the definition of premium risk relates to both unexpired risks on existing contracts and policies to be written/renewed during the coming year. As a result, the inputs into the Solvency II calculation are prospective in nature, rather than retrospective in nature like current HRBC. The issuer is expected to estimate not just its expected premiums for the coming year from the unexpired term on existing contracts, but also its expected premiums for the coming year on both new and renewal business. Keeping with the one-year time horizon, the focus is on the risk of loss within the coming year and not on the risk of cumulative losses over a longer time frame.

DMHC Tangible Net Equity (TNE)

The DMHC⁷ maintains a simple capital requirement driven by underwriting risk. Full-service health plans must maintain a TNE of at least:

- (1) *\$1 million; or*
- (2) *the sum of two percent (2%) of the first \$150 million of annualized premium revenues plus one percent (1%) of annualized premium revenues in excess of \$150 million; or*
- (3) *an amount equal to the sum of:*
 - (A) *eight percent (8%) of the first \$150 million of annualized health care expenditures except those paid on a capitated basis or managed hospital payment basis; plus*
 - (B) *four percent (4%) of the annualized health care expenditures, except those paid on a capitated basis or managed hospital payment basis, which are in excess of \$150 million; plus*
 - (C) *four percent (4%) of annualized hospital expenditures paid on a managed hospital payment basis.*

This approach of excluding capitated payments demonstrates one potential approach for the managed care credit. It is worth noting that risk-bearing organizations (i.e., those that accept capitation) are regulated by the DMHC and themselves must meet minimum capital requirements, and requirements for risk-bearing organizations vary considerably from state-to-state.

⁷ Cal. Code Regs. Title 28, §1300.76 - Plan Tangible Net Equity Requirement.

5. Options for Better Aligning H2 Risk Factors to Economic Risk

Based on the subcommittee's review of the current H2 risk factors, the evolution of health insurance underwriting risk since those risk factors were originally contemplated, and the alternative approaches utilized by other regulating entities, we recommend further study and potential implementation of, the following changes to the H2 underwriting risk factors.

1. Refresh factors based on updated insurer data
2. Develop factors at a more granular product level
3. Develop factors specific to more relevant block sizes and consider an indexing factor for cut points to change over time
4. Model risk factors over an NAIC-defined prospective time horizon with a defined safety level that can be refreshed regularly
5. Refresh of managed care credit formula and factors to be more relevant and reflective of common contracting approaches and other risk factors associated with these contracting approaches
6. Analyze long-term care insurance underwriting performance to create a more nuanced set of risk factors that considers pricing changes over time

Refresh factors based on updated insurer data

Because the underwriting risks taken by health insurers has changed significantly since many of the H2 underwriting risk factors were adopted, we recommend utilizing updated data to understand the current risk profile of health insurers. This could be achieved utilizing underwriting performance and volatility over the past 10 years—between 2011 and 2020—to consider pre-ACA, post-ACA and pandemic years to create new risk factors.

Develop factors at a more granular product level

Because many health products carry a range of underwriting risk—even within comprehensive medical coverage—a more detailed product view can be utilized to create new risk factors. For example, Commercial Group and Individual products are currently both included within the Comprehensive Medical column but have significantly different levels of volatility and associated financial risk.

This recommendation could be accomplished in the immediate term by utilizing reporting data from Page 7—Analysis of Operations by Line of Business. Over time, factors should be developed even more granularly. This can be accomplished by utilizing the Accident and Health Policy Experience Exhibit but would either require a change to when that filing would be submitted or via company records within the RBC filing.

Develop factors specific to more relevant block sizes and consider an indexing factor for cut points to change over time

As blocks grow, underlying volatility declines given the law of large numbers, but the relevant cut points to reflect that decline in volatility are likely well above what is currently utilized within the Underwriting Risk formula (e.g., \$3M, \$25M). Given the high prevalence of claimants

reaching costs well in excess of anything contemplated 20 years ago, these cut points should be revised to reflect more relevant block sizes and shifts in volatility.

Model risk factors over an NAIC-defined prospective time horizon with a defined safety level that can be refreshed regularly

Because risk factors are applied to historical claims to calculate capital buffers for losses against future premiums, the updated risk factor analysis should analyze prospective future losses over a defined time horizon. There are a range of defensible time horizons and safety levels that could be utilized within the risk factor modeling. While a one-year time horizon is most common, multiyear horizons could arguably better reflect the underwriting cycle. A range of safety levels could also be reasonably justified. Ultimately, these two modeling elements require regulatory discretion but should be well-defined and generally consistent over time to enable business management.

Refresh of managed care credit formula and factors to be more relevant and reflective of common contracting approaches and other risk factors associated with these contracting approaches

Because many of the common provider contracting mechanisms that existed when the factors were originally created are no longer widely used, an update to the managed care credit would better account for approaches like gain sharing and bundled payments. Additionally, the subcommittee encourage revisiting the bonus calculation for Category 2 claims in light of typical bonus levels available to providers and whether those bonuses have reduced underwriting volatility for health plans.

Analyze long-term care insurance underwriting performance to create a more nuanced set of risk factors that considers pricing changes over time

Because the underwriting environment for LTC insurance policies has undergone multiple somewhat discrete phases, it would likely be appropriate to evaluate LTC insurance underwriting risk charges according to the groups of policy issue years (e.g., before 2000, between 2000 and 2010, after 2010).

6. Potential Next Steps for Working Group Consideration

As a next step, the Subcommittee recommends first focusing on developing new factors on XR013 and XR018/XR019 consistent with recommendations 1 - 6 above. This would involve collecting historical statutory financial data from the analysis of operations by lines of business as well as Exhibit 7 Part 1—Summary of Transactions with Providers. Then, a data analysis exercise would be required to develop risk factors at a range of safety levels for the working group's consideration.

Following that analysis, other underwriting risk factors (e.g., those on XR015 and XR016) could be evaluated utilizing the working group-approved approach—likely with special consideration for LTC insurance.

Thank you for the opportunity to provide this report in response to the request of the working group to provide analysis to perform a comprehensive review of the H2—Underwriting Risk component and the managed care credit calculation within the health RBC formula. We welcome the opportunity to speak with you in more detail and answer any questions you might have regarding this report. If you would like to discuss anything pertaining to this report and its recommendations, please contact Matthew Williams, the Academy’s senior health policy analyst, at williams@actuary.org to make arrangements.

Sincerely,

Derek Skoog, MAAA, FSA
Chairperson
Health Solvency Subcommittee
American Academy of Actuaries

CC: Crystal Brown
Senior Insurance Reporting Analyst
cbrown@naic.org

Capital Adequacy (E) Task Force

RBC Proposal Form

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

DATE: <u>10/25/2021</u>	<u>FOR NAIC USE ONLY</u>
CONTACT PERSON: <u>Crystal Brown</u> TELEPHONE: <u>816-783-8146</u> EMAIL ADDRESS: <u>cbrown@naic.org</u> ON BEHALF OF: <u>Health RBC (E) Working Group</u> NAME: <u>Steve Drutz</u> TITLE: <u>Chief Financial Analyst/Chair</u> AFFILIATION: <u>WA Office of Insurance Commissioner</u> ADDRESS: <u>5000 Capitol Blvd SE</u> <u>Tumwater, WA 98501</u>	Agenda Item # <u>2021-18-H</u> Year <u>2022</u> <b style="text-align: center;"><u>DISPOSITION</u> <input type="checkbox"/> ADOPTED _____ <input type="checkbox"/> REJECTED _____ <input type="checkbox"/> DEFERRED TO _____ <input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____ <input checked="" type="checkbox"/> EXPOSED <u>Dec. 3, 2021</u> <input type="checkbox"/> OTHER (SPECIFY) _____

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

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

DESCRIPTION OF CHANGE(S)

Incorporate benchmarking guidelines for the Working Group to follow in updating the investment income adjustment in the underwriting risk factors for Comprehensive Medical, Medicare Supplement and Dental & Vision.

REASON OR JUSTIFICATION FOR CHANGE **

The reason for the change is to clearly identify the frequency and parameters to use in adjusting the underwriting risk factors for investment income in the Comprehensive Medical, Medicare Supplement and Dental & Vision lines.

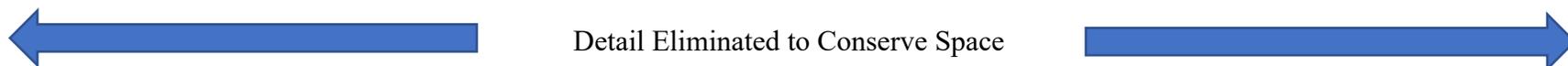
Additional Staff Comments:

11-4-21 cgb The WG exposed for 30-day public comment period ending on Dec. 3, 2021.
 12-16-21 cgb One comment letter received.
 12-16-21 cgb The Working Group adopted the proposal.

** This section must be completed on all forms.

Revised 11-2013

UNDERWRITING RISK - L(1) THROUGH L(21)
 XR013



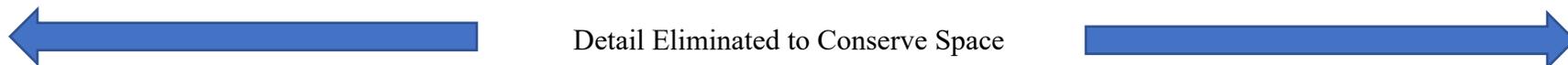
Line (12) Underwriting Risk Claims Ratio. For Columns (1) through (5), Line (11) / Line (6). If either Line (6) or Line (11) is zero or negative, Line (12) is zero.

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

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

The investment income yield was incorporated into the Comprehensive Medical & Hospital, Medicare Supplement and Dental & Vision lines of business. The purpose was to incorporate an offset to reduce the underwriting risk factor for investment income earned by the insurer. The Working Group incorporated a 0.5% income yield that was based on the yield of a 6-month US Treasury Bond. The Working Group will evaluate the yield of the 6-month Treasury bond as of January 1st each year and determine if further modifications to the 0.5% adjustment are needed. Any adjustments will be rounded up to the nearest 0.5%.

Line (14) Base Underwriting Risk RBC. Line (6) x Line (12) x Line (13).



Alternative Language:

The investment income yield was incorporated into the Comprehensive Medical & Hospital, Medicare Supplement and Dental & Vision lines of business. The purpose was to incorporate an offset to reduce the underwriting risk factor for investment income earned by the insurer. The Working Group incorporated a 0.5% income yield that was based on the yield of a 6-month US Treasury Bond. Each year, the Working Group will identify the yield of the 6-month Treasury bond (U.S. Department of the Treasury) on each Monday through the month of January and determine if further modifications to the 0.5% adjustment are needed. Any adjustments will be rounded up to the nearest 0.5%.

Draft: 1/4/22

Health Risk-Based Capital (E) Working Group
Virtual Meeting
December 16, 2021

The Health Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Dec. 16, 2021. The following Working Group members participated: Steve Drutz, Chair (WA); Wanchin Chou (CT); Tish Becker (KS); Tom Dudek (NY); Kimberly Rankin (PA); and Aaron Hodges and Matthew Richard (TX).

1. Adopted Proposal 2021-18-H (Investment Income Adjustment Benchmarks)

Mr. Drutz said the Working Group adopted a previous proposal to incorporate a 0.5% investment income adjustment in the underwriting risk factors and agreed to draft guidance and benchmarks for updating the adjustment on an annual basis. These benchmarking guidelines were exposed under proposal 2021-18-H for a 30-day public comment period. The Working Group received one comment letter from UnitedHealth Group (UHG).

Jim Braue (UHG) summarized the comment letter (Attachment Three-C1). He said the letter addressed two key points: the maturity assumption and the reference period. He said UHG believes the assumption period of six months is still very conservative because even fairly conservative assumptions of business runoff would produce a rate of somewhere in the one- to two-year range. He said UHG understands the concern about consistency with rate filings; however, this is a company-specific issue that would have to be addressed through the filings process, and risk-based capital (RBC) must be based on broad assumptions. He said the proposed rounding adjustment could alleviate some of the difference; however, depending on the slope of the yield curve, using a six-month rate with that rounding adjustment could still produce something that is either too low or too high.

Mr. Braue said the second key point of the UHG letter relates to the reference period and the proposed wording that the Working Group will evaluate the yield as of Jan. 1 each year. He said taken literally, that would mean using the rate as of Jan. 1, and fixed income markets will typically be closed and a rate will normally not be published. He also noted that using a single day is probably not optimal because there could be some anomalous results due to a news report that came out the day before that could result in a dramatic change to the rate one day and recover the next. He suggested using a short period, such as the first 10 business days of the year.

Mr. Drutz said the current language states that the Working Group will evaluate the yield as of Jan. 1, and this seems to give some flexibility to the Working Group if interest rates spike up or down after Jan. 1.

Mr. Chou made a motion, seconded by Ms. Rankin, to adopt proposal 2021-18-H. The motion passed unanimously.

2. Exposed Health Test Language Proposal

Mr. Drutz said the Health Test Ad Hoc Group draft recommended changes to the health test language (Attachment Three-C2) within the Annual Statement Instructions. Revisions included: 1) references in the health General Interrogatories; 2) a sentence regarding separate accounts in the life health test language; 3) deleted the requirements for licensed and actively writing in five states or less, 75% of the current premiums are written in the domiciliary state, and the “or” statement for the premium and reserve ratio equal to 100% in both the life and property/casualty (P/C) health test language; 4) updates to the reference pulls in the life General Interrogatories from the Life RBC to the Analysis of Operations by Lines of Business – Accident and Health; and 5) updates to the reference pulls in the P/C General Interrogatories from the P/C RBC to the Underwriting and Investment Exhibit, Part 1B in the current year column. Mr. Drutz noted that the references in the life General Interrogatories could

be further refined if the health test language is adopted by the Blanks (E) Working Group. He also noted that the prior year column in the P/C General Interrogatories will be updated in subsequent years, as the changes for the Underwriting and Investment Exhibit, Part 1B are only effective beginning in 2022.

Mr. Drutz said the Health Test Ad Hoc Group will continue to discuss and evaluate if there will be further recommendations to the premium and reserve ratios; however, these recommendations will be considered on a separate proposal for 2023 or later.

Hearing no objections, the Working Group agreed to expose the health test language proposal for a 40-day public comment period ending Jan. 24. The exposure will be distributed to both the Health Risk-Based Capital (E) Working Group and the Life Risk-Based Capital (E) Working Group.

3. Discussed Other Matters

Mr. Drutz said the Financial Condition (E) Committee approved the formation of the Risk-Based Capital (RBC) Investment Risk and Evaluation (E) Working Group at its Dec. 13 meeting. Philip Barlow (DC) will chair the Working Group. The Capital Adequacy (E) Task Force will meet Dec. 20 to review the charges and responsibilities of the Working Group. Interested members should contact Jane Barr (NAIC) for either membership or interested regulator participation.

Having no further business, the Health Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/Spring 2022 National Meeting/ Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) TF/Health Risk-Based Capital (E) WG

UNITEDHEALTH GROUP

Corporate Finance – Actuarial Services Division
185 Asylum Street, CityPlace I • Hartford, CT 06103

November 30, 2021

Mr. Steven Drutz, Chair
Health Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

Via electronic mail to Crystal Brown.

Re: Proposal 2021-18-H.

Dear Mr. Drutz:

I am writing on behalf of UnitedHealth Group in regard to Proposal 2021-18-H, as exposed for comment on 11/4/21. As we have stated in previous comment letters, we are supportive of investment income being reflected in the Health Risk-Based Capital formula, and we appreciate the work that your Working Group has done to implement that concept.

Proposal 2021-18-H bases the investment income adjustment on “the yield of the 6-month Treasury bond as of January 1st each year.” We will comment on two aspects of this proposal: the 6-month maturity assumption and the January 1 reference period.

Six-month maturity assumption.

As explained in our comment letters of 1/6/21 and 4/16/21, we believe that a longer maturity assumption than 6 months is warranted. In particular, we have suggested that a 5-year maturity assumption would be reasonable, given that the bond risk factors were based on an assumed 5-year maturity. The same portfolio that generates the bond risk is also generating the investment income that is being reflected in the underwriting risk factors.

Two objections have been raised to using a 5-year maturity: a concern about asset/liability mismatch; and a concern about consistency with premium rate filings. We will address both concerns below.

1. Asset/liability mismatch.

Considerable emphasis has been placed on the fact that most claims are paid within a few months of when they were incurred. The analysis that the American Academy of Actuaries

performed to determine the investment income adjustment indicated that the average lag until payment for a comprehensive medical claim is less than two months. However, as we noted in our 1/6/21 letter, the run-out period of a single incurral date's claims is not really relevant from an investment standpoint. As a going concern, a health entity does not repeatedly run its assets down to zero as claims are paid; there is a continual inflow of cash from premiums and other revenues, and investments are held for a longer term. Generally speaking, investment maturities would not be needed for as long as the entity's business is stable or growing, except in cases where cash outflows exceeded cash inflows because of abnormally high levels of claims or other expenses.

Over what period might we assume that an entity's volume of business will remain stable? For purposes related to the underwriting risk charges, we can look at what the Academy assumed in developing those charges. In the December 1994 report (as revised) of the Academy's Health Organizations Risk Based Capital Task Force to the NAIC's Health Organizations Risk-Based Capital Working Group, the Academy explained the following about the model used in determining the underwriting risk charges:

The purpose of this model is to simulate the financial results of a block of business over a five year period. ... The block of business that is simulated is assumed to represent a stationary population. This means that as old business lapses, new business is written, and the characteristics of the inforce remains steady over time.

This, by itself, would suggest that a five-year investment maturity is indeed consistent with the assumptions underlying the development of the underwriting risk factors. It might be legitimately objected that, while the Academy may have evaluated risk assuming five years of steady volume, the modeled entity would not necessarily have made that same assumption in its investment strategy. That is true, but likewise the entity would not necessarily assume the imminent termination of all of its business. The use of a six-month maturity assumption could mean, as an example, that the entity expected more than 50% of its business to be terminated immediately, and the remainder to be terminated in one year. (The percentage is "more than" 50% because the run-off of the claims would add, as noted above, something more than a month to the average maturity.) While some entities, with concerns about the stability of their business, might make such an assumption, it does not seem like a reasonable assumption for the broad majority of entities covered by the Health RBC formula.

During a previous discussion, one regulator pointed out that, while immediate termination of most or all of an entity's business might not be a reasonable assumption, in some markets a 30% termination rate would be quite reasonable. Consider that, if 30% of an entity's business terminated immediately (net to any new business added), and another 30% of the remaining business terminated at the beginning of each subsequent year, on average the business would be on the books for about 2.3 years. If we wanted to be more conservative than to assume that the 30% annual termination continued indefinitely, and instead assumed that all remaining business would terminate at the end of the third year, the average life of the business would still be more than 1.5 years. Because that number represents an average, and because the yield curve is currently convex upwards, the resulting interest rate might

correspond to a maturity somewhat less than 1.5 years, but still more than one year. To reduce that rate further, to represent a six-month maturity, seems overly conservative.

Another potential objection is that the RBC formula does in fact assume that there will be losses, and that therefore cash outflows might indeed be assumed to exceed cash inflows, resulting in a need for shorter maturities. However, two things should be considered: first, that the underwriting risk charges (approximating the excess outflows) will in most cases be less than the claim reserves; and second, that the underwriting risk charges represent a cumulative loss over five years, which would not necessarily all need to be funded in the first year or two. Therefore, the capital that covers the excess outflows would not necessarily be invested to a shorter horizon than the claim reserves themselves, and accordingly would not significantly impact the average maturity of the investment portfolio.

In summary, even rather conservative assumptions about business volume would lead to an assumed maturity in the range of one to two years. Less conservative assumptions could easily justify a maturity above two years, since, for example, an entity experiencing a 30% loss of business might adjust its pricing and/or marketing to reduce further losses, rather than allow the 30% to continue or worsen.

2. Consistency with premium rate filings.

Regulators have raised the concern that the assumption of any non-trivial amount of investment income would be inconsistent with the assumptions that they have seen in premium rate filings, where, they state, investment income is typically dismissed as being immaterial. First, we must note that there may legitimately be differences between what is assumed for RBC purposes and what is assumed for rate filings, because of, for instance, differing standards of materiality.

However, even if we suppose that the same assumption should be used for both purposes, it does not follow that the rate filings should be driving the RBC outcome. RBC should be based on the best available data and reasoning. If those data and rationales seem at odds with what is being assumed elsewhere, it is those other assumptions that should be considered suspect.

Further, we point out that the RBC formula is applied to a broad population of health entities, whereas rate filings are entity-specific. If a regulator is concerned about whether an entity has appropriately reflected investment income in its rate filing, that entity can be required to provide further justification for its assumptions. RBC, on the other hand, must be appropriate for a wide variety of circumstances, and there is a practical limitation on how much it can be tailored to individual entities.

In summary, it does not seem appropriate to base RBC assumptions on what is depicted in premium rate filings.

We recognize that the proposal to round the investment income rate up to the next higher multiple of 0.5% was intended, at least in part, to effectively lengthen the maturity assumption.

However, while a fix of that sort might produce a reasonable result at a given point in time, it is unlikely to work properly in the long term. When the yield curve has a steep positive slope, the adjustment will be inadequate. When the yield curve is flat or, especially, inverted, the adjustment will be excessive. To avoid such outcomes, the maturity assumption should be set appropriately, and a lesser degree of rounding should be used.

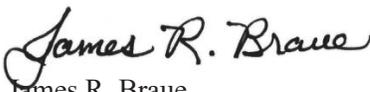
In regard to that rounding convention, we will also note that the proposal states, “Any adjustments will be rounded up to the nearest 0.5%.” We suggest that, to avoid confusion, the sentence should begin, “The investment income yield will be rounded ...” The word “adjustment” might be construed to mean the change in the underwriting risk factor, rather than the yield assumption underlying that change.

January 1 reference period.

Proposal 2021-18-H provides, “The Working Group will evaluate the yield of the 6-month Treasury bond as of January 1st each year ...” We have some concerns regarding the phrase “as of January 1st.” To begin with, the fixed income markets typically will not be open on January 1, and many rate sources (e.g., the U.S Treasury department’s Daily Treasury Yield Curve Rates) will not supply a value for that date, leaving open to question what value should be used. More importantly, it may be inadvisable to use any single date as the basis for the yield determination, because the rate on a single date may be anomalous, e.g., because of overreactions to certain news items. It would be better to use the average yield over a somewhat longer period, such as the first ten business days of the year, or even the first month of the year. This would tend to minimize the impact of any one anomalous rate, while still allowing the determination to be made early in the calendar year.

* * * * *

We would be happy to discuss these comments with you and the Working Group.



James R. Braue
Director, Actuarial Services
UnitedHealth Group

cc: Crystal Brown, NAIC
Randi Reichel, UnitedHealth Group

NAIC BLANKS (E) WORKING GROUP

Blanks Agenda Item Submission Form

<p style="text-align: right;">DATE: <u>11-3-21</u></p> <p>CONTACT PERSON: <u>Crystal Brown</u></p> <p>TELEPHONE: <u>816-783-8146</u></p> <p>EMAIL ADDRESS: <u>cbrown@naic.org</u></p> <p>ON BEHALF OF: <u>Health Risk-Based Capital (E) WG</u></p> <p>NAME: <u>Steve Drutz</u></p> <p>TITLE: <u>Chair</u></p> <p>AFFILIATION: <u>WA Office of the Insurance Commissioner</u></p> <p>ADDRESS: _____</p>	<p style="text-align: center;"><u>FOR NAIC USE ONLY</u></p> <p>Agenda Item # _____</p> <p>Year <u>2022</u></p> <p>Changes to Existing Reporting []</p> <p>New Reporting Requirement []</p> <p style="text-align: center;"><u>REVIEWED FOR ACCOUNTING PRACTICES AND PROCEDURES IMPACT</u></p> <p>No Impact []</p> <p>Modifies Required Disclosure []</p> <p style="text-align: center;"><u>DISPOSITION</u></p> <p>[] Rejected For Public Comment</p> <p>[] Referred To Another NAIC Group</p> <p>[] Received For Public Comment</p> <p>[] Adopted Date _____</p> <p>[] Rejected Date _____</p> <p>[] Deferred Date _____</p> <p>[] Other (Specify) _____</p>
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BLANK(S) TO WHICH PROPOSAL APPLIES

- | | | |
|---|---|--------------------------------------|
| <input type="checkbox"/> ANNUAL STATEMENT | <input checked="" type="checkbox"/> INSTRUCTIONS | <input type="checkbox"/> CROSSCHECKS |
| <input type="checkbox"/> QUARTERLY STATEMENT | <input type="checkbox"/> BLANK | |
| <input checked="" type="checkbox"/> Life, Accident & Health/Fraternal | <input type="checkbox"/> Separate Accounts | <input type="checkbox"/> Title |
| <input checked="" type="checkbox"/> Property/Casualty | <input type="checkbox"/> Protected Cell | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Health | <input type="checkbox"/> Health (Life Supplement) | |

Anticipated Effective Date: _____

IDENTIFICATION OF ITEM(S) TO CHANGE

Revise the Health Annual Statement Test language

REASON, JUSTIFICATION FOR AND/OR BENEFIT OF CHANGE**

The purpose of the change is to move those filers who write predominantly health business and file on the life blank to begin filing on the health blank.

NAIC STAFF COMMENTS

Comment on Effective Reporting Date: _____

Other Comments:

The Health Test Ad Hoc Group of the Health Risk-Based Capital (E) Working Group continues to discuss and review any potential modifications to premium and reserve ratios. The group will continue to evaluate if there should be changes and if so, will propose this to the Blanks (E) Working Group in a separate proposal for consideration in future years.

The references to the Life & Property & Casualty General Interrogatories were changed from pulling from RBC to instead pull from the Analysis of Operations By Lines of Business – Accident and Health and Underwriting & Investment Exhibit, Part 1B, respectively. The life General Interrogatory references will be further updated if proposal [2021-17BWG](#) is adopted.

** This section must be completed on all forms.

Revised 7/18/2018

Health

GENERAL

The annual statement is to be completed in accordance with the *Annual Statement Instructions* and *Accounting Practices and Procedures Manual* except to the extent that state law, rules or regulations are in conflict with these publications. In cases of conflict, the health annual statement will be filed pursuant to such state's filing requirements. The domiciliary state's insurance regulatory authority shall maintain full discretion in determining which NAIC annual statement blank must be filed. The annual statement blank filed with the domiciliary state shall be the blank submitted to, and maintained by, the NAIC, and barring conflict as described above, should be filed with all jurisdictions in which the reporting entity is licensed.

1. Health Statement Test:

If a reporting entity completes the health annual statement for the reporting year, the reporting entity must complete the Health Statement Test.

The Health Statement Test is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers' compensation, accidental death and dismemberment policies and long-term care policies.

Passing the Test:

A reporting entity is deemed to have passed the Health Statement Test if the values for the premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.

Failing the Test:

If a reporting entity, licensed as a life, accident and health or property and casualty insurer in its domiciliary state, is required to file the health annual statement for the reporting year and does not pass the Health Statement Test in the reporting year, it will revert to the annual statement form and risk-based capital report associated with the type of license held in its domestic state in the first quarter of the second year following the reporting year. If a reporting entity, licensed as a health insurer in its domiciliary state, is required to file the health annual statement for the reporting year and does not pass the Health Statement Test in the reporting year, it should continue to file the health annual statement.

Variances from following these instructions:

If a reporting entity's domestic regulator requires the reporting entity to complete an annual statement form and risk-based capital report that differs from these instructions, the domestic regulator shall notify the reporting entity in writing by June 1 of the year following the reporting year in which a Health Statement Test is submitted.

General Interrogatories

2. This General Interrogatory is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers' compensation, accidental death and dismemberment policies and long-term care policies.

All reporting entities should file the test.

Premium and reserve information is obtained from the annual statement sources referenced on the form or from the related risk-based capital report for the corresponding premium descriptions relating to the current and prior reporting periods.

Item	Description	Reporting Year Annual Statement Data	Prior Year Annual Statement Data
2.1	Premium Numerator	Health Premium values listed in the Analysis of Operations by Line of Business— (Gain and Loss—Exhibit) , Line 1, Column 1 through Column 9 (in part for credit A&H and dread disease coverage, LTC, Disability Income), Column 10 of the reporting year’s annual statement.	Health Premium values listed in the Analysis of Operations by Line of Business— (Gain and Loss—Exhibit) , Line 1, Column 1 through Column 9 (in part for credit A&H and dread disease coverage, LTC, Disability Income) Column 10 of the reporting year’s annual statement.
2.2	Premium Denominator	Net Premium Income Premium and Annuity Considerations (Page 4, Line 2, Column 2) of the reporting year’s annual statement.	Premium and Annuity Considerations Net Premium Income (Page 4, Line 2, Column 2) of the prior year’s annual statement.
2.3	Premium Ratio	2.1/2.2	2.1/2.2
2.4 (a)	Reserve Numerator	Health Reserve – Underwriting and Investment Exhibit, Part 2B (Column 3 + 4, Line 13 minus Line 11) exclude Line 10 health care receivables, dread disease coverage, and credit A&H + Part 2D (Line 8, Column 1 minus Column 9) include stand-alone health care related plans only (i.e. stand-alone prescription drug plans, etc.), exclude dread disease coverage, credit A&H, LTC, Disability Income, etc. of the reporting year’s annual statement.	Health Reserve – Underwriting and Investment Exhibit, Part 2B (Column 3 + 4, Line 13 minus Line 11) exclude Line 10 health care receivables, dread disease coverage, and credit A&H + Part 2D (Line 8, Column 1 minus Column 9) include stand-alone health care related plans only (i.e. stand-alone prescription drug plans, etc.), exclude dread disease coverage, credit A&H, LTC, Disability Income, etc. of the reporting year’s annual statement.
2.5	Reserve Denominator	Claims Unpaid and Aggregate Reserves (Page 3, Column 3, Lines 1 + 2 + 4 + 7) of the reporting year’s annual statement.	Claims Unpaid and Aggregate Reserves (Page 3, Column 3, Lines 1 + 2 + 4 + 7) of the prior year’s annual statement.
2.6	Reserve Ratio	2.4/2.5	2.4/2.5

- (a) Alternative Reserve Numerator – Alternative Reserve Numerator – Company records may be used to adjust the reserve numerator to provide consistency between the values reported in the reserve numerator (2.4) and the premium numerator (2.1).

Life, Accident and Health /Fraternal

Health Test

GENERAL

The annual statement is to be completed in accordance with the *Annual Statement Instructions and Accounting Practices and Procedures Manual* except to the extent that state law, rules or regulations are in conflict with these publications. In cases of conflict, the life, accident and health annual statement will be filed pursuant to such state’s filing requirements. The domiciliary state’s insurance regulatory authority shall maintain full discretion in determining which NAIC annual statement blank must be filed. The annual statement blank filed with the domiciliary state shall be the blank submitted to, and maintained by, the NAIC, and barring conflict as described above, should be filed with all jurisdictions in which the reporting entity is licensed.

1. **Health Statement Test:**

If a reporting entity is licensed as a life and health insurer and completes the life, accident and health annual statement for the reporting year, the reporting entity must complete the Health Statement Test. However, a reporting entity that is required to also file the Separate Accounts Statement is not subject to the results of the Health Statement Test, and should continue to complete the life, accident and health/fraternal blank.

The Health Statement Test is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers’ compensation, accidental death and dismemberment policies and long-term care policies.

Passing the Test:

A reporting entity is deemed to have passed the Health Statement Test if:

The values for the **premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.**

AND

The entity passing Health Statement Test is licensed and actively issuing and/or renewing business in five states or less.

AND

At least seventy-five percent (75%) of the entity's current year premiums are written in its domiciliary state.

OR

The values for the premium and reserve ratios in the Health Statement Test equal 100% for both the reporting and prior year, regardless of the number of states in which the entity is licensed.

If a reporting entity is a) licensed as a life and health insurer; b) completes the Life, Accident and Health annual statement for the reporting year; and c) passes the Health Statement Test (as described above), the reporting entity must complete the health statement beginning with the first quarter's statement for the second year following the reporting year in which the reporting entity passes the Health Statement Test and must also file the corresponding risk-based capital report and the life supplements for that year-end.

Variations from following these instructions:

If a reporting entity's domestic regulator requires the reporting entity to complete an annual statement form and risk-based capital report that differs from these instructions, the domestic regulator shall notify the reporting entity in writing by June 1 of the year following the reporting year in which a Health Statement Test is submitted.

General Interrogatories

- This General Interrogatory is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers compensation, accidental death and dismemberment policies and long-term care policies.

All reporting entities should file the test.

Premium and reserve information is obtained from the annual statement sources referenced on the form or from the related risk-based capital report for the corresponding premium descriptions relating to the current and prior reporting periods.

Item	Description	Reporting Year Annual Statement Data	Prior Year Annual Statement Data
2.1	Premium Numerator	<p>Health Premium values listed in the <u>Analysis of Operations By Lines of Business – Accident and Health: statement value column (Column 1) of the reporting year's Life-RBC report:</u></p> <p><u>Individual Lines:</u> Usual and Customary Major Medical and Hospital Comprehensive (Individual & Group) – (Columns 1 & 2, Line 1) Medicare Supplement (Column 4, Line 1) Medicare Part D (Column 13 (in part), Line 1) Dental and Vision (Columns 5 & 6, Line 1) Medicare (Column 8, Line 1) Medicaid (including Medicaid Pass-Through Payments Reported as Premium) (Column 9, Line 1)</p> <p><u>Group Lines:</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium (Column 13 (in part), Line 1) Dental and Vision Federal Employee Health and Benefit Plan (Column 7, Line 1)</p>	<p>Health Premium values listed in the statement value column (Column 1) of the reporting year's Life-RBC report <u>Analysis of Operations By Lines of Business – Accident and Health:</u></p> <p><u>Individual Lines:</u> Comprehensive (Individual & Group) – (Columns 1 & 2, Line 1) Usual and Customary Major Medical and Hospital Medicare Supplement (Column 4, Line 1) Medicare Part D (Column 13 (in part), Line 1) Dental and Vision (Columns 5 & 6, Line 1) Medicare (Column 8, Line 1) Medicaid (including Medicaid Pass-Through Payments Reported as Premium) (Column 9, Line 1)</p> <p><u>Group Lines:</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium (Column 13 (in part), Line 1) Dental and Vision Federal Employee Health and Benefit Plan (Column 7, Line 1)</p>
2.2	Premium Denominator	Premium and Annuity Considerations (Page 4, Line 1) of the reporting year's annual statement	Premium and Annuity Considerations (Page 4, Line 1) of the prior year's annual statement

2.3	Premium Ratio	2.1/2.2	2.1/2.2
2.4(a)	Reserve Numerator	Net A&H Policy and Contract Claims without Credit Health (Exhibit 8, Part 1, Line 4.4, Columns 9 and 11) plus Aggregate Reserves for A&H Policies without Credit Health (Exhibit 6, Column 1 less Column 10) for Unearned Premiums (Line 1) and Future Contingent Benefits (Line 4)	Net A&H Policy and Contract Claims without Credit Health (Exhibit 8, Part 1, Line 4.4, Columns 9 and 11) plus Aggregate Reserves for A&H Policies without Credit Health (Exhibit 6, Column 1 less Column 3) for Unearned Premiums (Line 1) and Future Contingent Benefits (Line 4)
2.5	Reserve Denominator	Aggregate Reserve (Page 3, Column 1, Lines 1+2+4.1+4.2) minus additional actuarial reserves (Exhibit 6, Column 1, Lines 3+11 plus Exhibit 5, Misc. Reserves Section, Line 0799999)	Aggregate Reserve (Page 3, Column 1, Lines 1+2+4.1+4.2) minus additional actuarial reserves (Exhibit 6, Column 1, Lines 3+11 plus Exhibit 5, Misc. Reserves Section, Line 0799999)
2.6	Reserve Ratio	2.4/2.5	2.4/2.5

- (a) Alternative Reserve Numerator – Company records may be used to adjust the reserve numerator to provide consistency between the values reported in the reserve numerator (2.4) and the premium numerator (2.1).

Property/Casualty

Health Test

GENERAL

The annual statement is to be completed in accordance with the *Annual Statement Instructions* and *Accounting Practices and Procedures Manual* except to the extent that state law, rules or regulations are in conflict with these publications. In cases of conflict, the property and casualty annual statement will be filed pursuant to such state’s filing requirements. The domiciliary state’s insurance regulatory authority shall maintain full discretion in determining which NAIC annual statement blank must be filed. The annual statement blank filed with the domiciliary state shall be the blank submitted to, and maintained by, the NAIC, and barring conflict as described above, should be filed with all jurisdictions in which the reporting entity is licensed.

1. **Health Statement Test:**

If a reporting entity is licensed as a property and casualty insurer and completes the property and casualty annual statement for the reporting year, the reporting entity must complete the Health Statement Test.

The Health Statement Test is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers’ compensation, accidental death and dismemberment policies and long-term care policies.

Passing the Test:

A reporting entity is deemed to have passed the Health Statement Test if:

The values for the **premium and reserve ratios in the Health Statement Test equal or exceed 95% for both the reporting and prior year.**

AND

~~The entity passing Health Statement Test is licensed and actively issuing and/or renewing business in five states or less.~~

AND

~~At least seventy-five percent (75%) of the entity’s current year premiums are written in its domiciliary state.~~

OR

~~The values for the premium and reserve ratios in the Health Statement Test equal 100% for both the reporting and prior year, regardless of the number of states in which the entity is licensed.~~

If a reporting entity is a) licensed as a property and casualty insurer; b) completes the property and casualty annual statement for the reporting year; and c) passes the Health Statement Test (as described above), the reporting entity must complete the health statement beginning with the first quarter’s statement for the second year following the reporting year in which the reporting entity passes the Health Statement Test and must also file the corresponding risk-based capital report and the property/casualty supplements for that year-end.

Variations from following these instructions:

If a reporting entity’s domestic regulator requires the reporting entity to complete an annual statement form and risk-based capital report that differs from these instructions, the domestic regulator shall notify the reporting entity in writing by June 1 of the year following the reporting year in which a Health Statement Test is submitted.

General Interrogatories

2. This General Interrogatory is designed to determine whether a reporting entity reports predominantly health lines of business. Health lines include hospital or medical policies or certificates, comprehensive major medical expense insurance and managed care contracts and exclude other health coverage such as credit insurance, disability income coverage, automobile medical coverage, workers compensation, accidental death and dismemberment policies and long-term care policies.

All reporting entities should file the test.

Premium and reserve information is obtained from the annual statement sources referenced on the form or from the related risk-based capital report for the corresponding premium descriptions relating to the current and prior reporting periods.

Item	Description	Reporting Year Annual Statement Data	Prior Year Annual Statement Data
2.1	Premium Numerator	<p>Health Premium values listed in the statement value-Net Premiums Written column (Column +4) of the reporting year’s P&C RBC report<u>U&I Part 1B</u>:</p> <p><u>Individual Lines:</u> Usual and Customary Major Medical and Hospital Hospital<u>Comprehensive (hospital and medical) (individual and group) (Lines 13.1 and 13.2)</u> Medicare Supplement <u>(Line 15.4)</u> Medicare Part D <u>(Line 15.9, in part)</u> Dental and Vision <u>(Lines 15.1 and 15.2)</u> <u>Medicare (Line 15.6)</u> <u>Medicaid (including Medicaid Pass-Through Payments Reported as Premium) (Line 15.5)</u></p> <p><u>Group Lines:</u> Usual and Customary Major Medical and Hospital Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium <u>(Line 15.9, in part)</u> Dental and Vision Federal Employee Health and Benefit Plan <u>(Line 15.8)</u></p>	<p>Health Premium values as listed in the statement value column (Column 1) of the prior year’s P&C RBC report:</p> <p><u>Individual Lines</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Dental and Vision</p> <p><u>Group Lines</u> Usual and Customary Major Medical and Hospital Medicare Supplement Medicare Part D Stop Loss and Minimum Premium Dental and Vision Federal Employee Health and Benefit Plan</p>
2.2	Premium Denominator	Premiums Earned (Page 4, Line 1) of the reporting year’s annual statement	Premium Earned (Page 4, Line 1) of the prior year’s annual statement
2.3	Premium Ratio	2.1/2.2	2.1/2.2
2.4(a)	Reserve Numerator	Part 2A, Unpaid Losses and Loss Adjustment Expenses (Columns 8+9, Lines 13+15) plus Part 1A, Recapitulation of all Premiums (Columns 1+2, Lines 13+15) of the reporting year’s annual statement.	Part 2A, Unpaid Losses and Loss Adjustment Expenses (Columns 8+9, Lines 13+15) plus Part 1A, Recapitulation of all Premiums (Columns 1+2, Lines 13+15) of the prior year’s annual statement.
2.5	Reserve Denominator	Unpaid Loss and LAE (Page 3, Column 1, Lines 1+2+3) plus Part 1A, Recapitulation of all Premiums (Line 35, Columns 1+2) of the reporting year’s annual statement.	Unpaid Loss and LAE (Page 3, Column 1, Lines 1+2+3) plus Part 1A, Recapitulation of all Premiums (Line 35, Columns 1+2) of the prior year’s annual statement.
2.6	Reserve Ratio	2.4/2.5	2.4/2.5

- (a) Alternative Reserve Numerator – Company records may be used to adjust the reserve numerator to provide consistency between the values reported in the reserve numerator (2.4) and the premium numerator (2.1).

Draft: 4/18/22

Life Risk-Based Capital (E) Working Group
Virtual Meeting (*in lieu of meeting at the 2022 Spring National Meeting*)
March 23, 2022

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met March 23, 2022. The following Working Group members participated: Philip Barlow, Chair (DC); Jennifer Li (AL); Thomas Reedy (CA); Wanchin Chou (CT); Sean Collins (FL); Mike Yanacheak and Carrie Mears (IA); Vincent Tsang (IL); Fred Andersen (MN); William Leung (MO); Derek Wallman (NE); Kevin Clarkson (NJ); Bill Carmello and Amanda Fenwick (NY); Andrew Schallhorn (OK); Mike Boerner and Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Adopted its March 10, 2022; Jan. 10, 2022; Dec. 16, 2021; and 2021 Fall National Meeting Minutes

The Working Group met March 10, 2022; Jan. 20, 2022; and Dec. 16, 2021. During these meetings, the Working Group took the following action: 1) discussed the American Academy of Actuaries' (Academy's) recommendation on mortality; 2) exposed the changes to the asset valuation reserve (AVR) for a public comment period ending March 25; 3) discussed the Academy's comment letter on longevity reinsurance; and 4) adopted the guidance document on bond factor changes.

Mr. Yanacheak made a motion, seconded by Mr. Reedy, to adopt the Working Group's March 10, 2022 (Attachment Four-A); Jan. 10, 2022 (Attachment Four-B); Dec. 16, 2021 (Attachment Four-C); and Nov. 9, 2021 (*see NAIC Proceedings – Fall 2021, Capital Adequacy (E) Task Force, Attachment Three*) minutes. The motion passed unanimously.

2. Adopted its Working Agenda

Mr. Barlow said a request to add two items to the working agenda was received. Dave Fleming (NAIC) said one was to add the C-2 mortality work being done and another was to add an item for securities lending as it relates to the C-0 charge. Mr. Barlow suggested adding the C-2 item but not the C-0 item as it has yet to be discussed by the Working Group and could affect the other risk-based capital (RBC) formulas.

Mr. Yanacheak made a motion, seconded by Mr. Leung, to adopt the Working Group's working agenda with the modification to add the C-2 item. The motion passed unanimously.

3. Discussed Reinsurance and Comfort Trusts

Andrew Holland (Sidley Austin LLP) said he is presenting on behalf of J.P. Morgan and thanked the Working Group for the opportunity to introduce this topic (Attachments Four-D and Four-E). He said life reinsurance transactions with licensed or accredited reinsurers would not require collateral in order to receive credit for that reinsurance. He said the life RBC instructions provide for an adjustment when there is a reinsurer that is licensed or accredited, but collateral is nonetheless provided, whether it is funds withheld or trusteed collateral, to prevent an overstatement of RBC. He said there are many life reinsurance transactions done where, notwithstanding a licensed or accredited status, the parties agree to the provision of collateral and when that collateral is provided, it is often something that is not a pure statutory credit for reinsurance trusts, but something referred to as a comfort trust. For a ceding company to avail itself of the RBC credit with the current instructions, he said the collateral needs to be in the form of a trust. He said what is being introduced to the Working Group is another collateral mechanism, which is the functional equivalent with a request to amend the instructions to provide for a similar credit. Mr. Holland stated that the comfort trust is a custodial account that is established by the reinsurer

that is coupled with an account control agreement in favor of the ceding company and provides the same benefits that a trust agreement does. He said the collateral is provided by the reinsurer and acts as security to the ceding company, where the ceding company has the ability to draw down on that collateral. He said this is an interesting time to discuss this topic given the implementation of the reciprocal jurisdiction reinsurer provisions, which stand to loosen the requirement for statutory collateral going forward.

Phil Prince (J.P. Morgan) made the point that custody control accounts are widely used in the finance industry already. He said it is the way in which collateral is held for pledges to the Federal Home Loan Banks (FHLBs), as well as being used in the derivatives area. He said J.P. Morgan has thousands of these custodial control accounts already in place and has a much smaller number of insurance trusts, as those are a much more narrowly used mechanism, and they are asking that custody control accounts be treated in the same manner for purposes of the RBC calculation. Brian Eckert (J.P. Morgan) described how custody control accounts offer the same operational control as a trust arrangement but at a reduced cost due to a larger number of providers and automation. Brad Drake (J.P. Morgan) described the specific instructional changes requested, which he said provides a specific definition of custodied collateral.

Mr. Andersen asked about liquidation of the reinsurer and how the ceding company would be taken care of. Similar to a trust arrangement where the mechanism for segregating assets is through the transfer to a trustee, Mr. Drake said it is the control agreement, paired with the custody account, which creates the security interest and makes the ceding company a secured creditor and provides the same functionality as a trust. Mr. Tsang said it would be beneficial to the Working Group to have a sample transaction to review to see that the cash flows, and the end result, work as they are being described and that there are no risks unaccounted for between the different structures. Mr. Holland said they would be happy to provide sample documentation. Mr. Barlow said the Working Group will continue discussion on this topic as that additional information is provided.

4. Discussed Bond Funds

Michael Ceccarelli (Vanguard) presented the proposal (Attachment Four-F). He said clients have long asked why most bond mutual funds are not afforded RBC treatment aligned with their underlying bond holdings. Instead, the current standard is that most bond mutual funds receive an equity charge of 30%, despite owning the same bonds that are directly owned by insurers and receive C-1 bond factors. Mr. Ceccarelli said this unaligned RBC treatment is deterring insurers from selecting the mutual fund structure as a means to access a diversified portfolio of bonds. For decades, under limited circumstances, he said the mutual fund structure has received more favorable RBC treatment, in the form of money markets and pure-government bond mutual funds. He said the long-standing RBC exempt treatment for these mutual funds indicates a general comfort with the fixed income mutual fund structure, a structure that has been around for nearly a century and proven itself during varying market conditions. However, appropriately aligned RBC has always been limited to these two types of fixed income mutual funds, excluding all other mutual funds from receiving capital charges based on their bond holdings.

Mr. Ceccarelli said in the past few years, the Statutory Accounting Principles (E) Working Group and the Valuation of Securities (E) Task Force have made regulatory strides to create a more inclusive standard for fixed income mutual funds by permitting NAIC designation reporting outside of the bond schedule and opening the Securities Valuation Office (SVO) review to all U.S. Securities and Exchange Commission (SEC)-registered fixed income funds. He said this could allow for RBC factors to more adequately reflect the underlying risk of a fund that owns bonds, based on a thorough, established look-through risk evaluation conducted by the SVO.

Mr. Ceccarelli said Vanguard is asking that bond mutual funds be given the opportunity to receive RBC charges that reflect the risks of the bond securities held in the fund. He said Vanguard is not asking for unmitigated application of more favorable charges, but that a non-equity factor is applied only after the bond mutual fund has

submitted for approval through the SVO and the fund has undergone a risk review and assignment of an NAIC designation. Given the bond securities that make up these funds, he said it would be an appropriate proxy to use the highly scrutinized C-1 bond factors that have already been established. Importantly, these 20 factors provide a granular range, and a factor can be dictated and applied to a fund based on the aggregate risk of the bonds held within each uniquely composed fund. Because of the unique composition of each mutual fund, exactness of new, pre-established factors would seem an impossibility but also far less important than having an incrementally increasing range that can be applied to each fund based on the quantitative evaluation of credit quality, and qualitative discretion.

Mr. Ceccarelli said investment RBC charges should ensure adequate, appropriate capitalization based on risk but should not be a leading and determining factor in investment vehicle decisions for insurers. He said this is especially important for small and mid-size insurers that may be at a disadvantage when accessing the bonds they need for their portfolio but are being deterred from accessing those bonds through a mutual fund structure due to the currently associated equity charge. He said Vanguard believes this will provide clear guidance for insurers, align capital charges with the underlying risk of these investments, and give insurers another proven investment vehicle to access additional diversification to complement, not replace, their existing bond portfolios

Mr. Barlow asked if this proposal could also be applicable to the other RBC formulas. Mr. Ceccarelli said that it could. Mr. Barlow suggested the appropriate place for consideration of this proposal might be the RBC Investment Risk and Evaluation (E) Working Group. Mr. Fleming agreed since it could impact the other formulas and suggested a formal referral. Mr. Leung made a motion, seconded by Mr. Boerner, to refer this proposal to the RBC Investment Risk and Evaluation (E) Working Group. The motion passed unanimously.

Having no further business, the Life Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/2022 Spring National Meeting/Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) Task Force/Life Risk-Based Capital (E) Working Group/LRBCWG 3-23-22 Minutes.docx

Draft: 3/22/22

Life Risk-Based Capital (E) Working Group
Virtual Meeting
March 10, 2022

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met March 10, 2022. The following Working Group members participated: Philip Barlow, Chair (DC); Jennifer Li (AL); Thomas Reedy (CA); Wanchin Chou (CT); Mike Yanacheak and Carrie Mears (IA); Ben Slutsker (MN); William Leung (MO); Derek Wallman (NE); Seong-min Eom (NJ); Bill Carmello (NY); Mike Boerner and Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed the Academy C2 Mortality Work Group Recommendation

Mr. Barlow said there was one comment letter received. Brian Bayerle (American Council of Life Insurers—ACLI) presented the ACLI’s comment letter (Attachment Four-A1). He said the ACLI has one main recommendation with respect to the tiered charges and is suggesting treatment similar to what is currently done for disability income, where the product category with the highest risk charges is considered first, followed by the product category with the next highest risk charges but with recognition of the amount of net amount at risk (NAR) in the first category before determining which tiered charge to use. The third product category would then consider the NAR in the first two categories. He also noted the ACLI’s request for greater clarification of the definitions and improved tie-outs. He said the ACLI prefers option one in the American Academy of Actuaries’ (Academy’s) recommendation because of greater transparency. Mr. Barlow asked if the ACLI would be supportive if the suggested alternative tiering resulted in higher factors. He said it appears the ACLI is supportive of having amounts objectively pulled from the annual statement, but he asked for clarification if the ACLI is suggesting changes to the way certain items are reported. Mr. Bayerle said the ACLI would need to review any change in the proposed factors because of a change in the proposed tiering, but consistency with the analysis would be preferable. With respect to reporting changes, he said changes might be straightforward, and if state insurance regulators think this is a good idea, it might make sense as an area to explore to get direct tie-outs, but it appears that is something to be considered for 2023. Mr. Slutsker expressed appreciation for the ACLI’s suggestion on tiering, as he believes it addresses the risk on a more objective measure, rather than reliance on the name of a product group. Chris Trost (Academy), chair of the Academy C2 Mortality Work Group, said the Work Group has already done some preliminary work on this suggestion, but he said the proposed tiering was just to recognize that the volatility risk declines the bigger the block size is, so it makes sense to look at the aggregate mortality exposure as opposed to the break points for each of the categories. He said the Work Group plans to formally respond to this suggestion, along with other comments made previously, so it can be considered by the Working Group on a future call. Mr. Slutsker said he appreciates the desire to be able to tie out to amounts from the annual statement, but he also appreciates the appeal of option two and asked if something similar to option two was done with the adoption of the longevity risk charges. Paul Navratil (Academy), chair of the Academy C2 Longevity Risk Work Group, said longevity risk risk-based capital (RBC) treatment referred to reserves in the annual statement but on an in-part basis because not all products aggregated in a single line were in scope, and company records were needed. Mr. Barlow asked if there is a desire to go with option two and adjust the reporting in the annual statement. Mr. Bayerle asked which option the factors were based on. Mr. Trost said option two is offered because it is more of a principle-based approach, but it will require companies to populate the exposure for the different categories. He said the key aspect is the adjustment capacity, and option two involves more intensive categorization, which would require underlying calculations by companies. While option one is also based on company records, he said it is more explicit, as there is already a basis in the annual statement for the different categories.

With both options using company records, possible adjustments to the annual statement reporting, and option two perhaps being more involved, Mr. Barlow said it appears that there is a desire to move forward with one of the two options for 2022 RBC with reporting changes in 2023 to reduce the reliance on company records. He suggested considering longevity when thinking about the reporting changes to possibly lessen the reliance on company records for that RBC item as well. With a requirement to adopt the structural changes by the end of April for year-end 2022 RBC, he asked if both options offer the same ability to address issues. Mr. Trost said he believes the Working Group could adopt either option for the structure, and it will be a matter of modifying the definition of categories in the instructions. He said the Academy would like to address that, along with previous questions, and present it to the Working Group, but this could be done on a call prior to the end of April. Mr. Barlow asked if another exposure of the structural changes would be needed before the end of April. Dave Fleming (NAIC) said while there are some differences between the structural presentation of the two options, they are line-item descriptions, so he does not believe an additional exposure of the structure would be needed. He said there is time for the Working Group to have one call in April to hear additional input from the Academy and then another call to adopt the structural changes if two calls are needed. Mr. Barlow said the Working Group will schedule a call when the Academy has its updated information. Mr. Leung asked if the Academy will be able to provide the annual statement changes contemplated for both options. Mr. Trost said he believes the Academy could include that in its update, but he said he will discuss it with the Academy C2 Mortality Work Group.

2. Exposed the AVR Changes for Comment

Mr. Fleming reminded the Working Group that the changes being proposed to the asset valuation reserve (AVR) are a result of the changes to the RBC bond factors adopted for year-end 2021, and as was done with RBC changes done for tax reform, these changes are mechanical and retain the existing relationships. He said it starts with the AVR maximum reserve factor, which is to equal the after-tax RBC factor, and the AVR basic contribution and reserve objective factors are then percentages of the maximum reserve. He said these changes will be exposed for comment by the Blanks (E) Working Group at the Spring National Meeting and considered for year-end 2022 implementation. He said the Working Group does not need to adopt this proposal, but he suggested a short exposure by the Working Group to address any technical comments, and while none are expected, any comments received can be addressed as a modification to the Blanks (E) Working Group exposure. The Working Group agreed to expose the changes to the AVR (Attachment Four-A2) for a public comment period ending March 25.

Having no further business, the Life Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/2022 Spring National Meeting/Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) Task Force/Life Risk-Based Capital (E) Working Group/LRBCWG 3-10-22 Minutes.docx



Brian Bayerle
Senior Actuary

March 7, 2022

Mr. Philip Barlow
Chair, NAIC Life Risk-Based Capital (E) Working Group (Life RBC)

Re: C-2 Mortality Structure Proposal

Dear Mr. Barlow:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit the following comments on the American Academy of Actuaries (the Academy) C-2 mortality structure proposal.

ACLI is supportive of the efforts to get updated C-2 mortality factors in place for yearend 2022 based on the best available information we currently possess. We have the following comments:

- Tiered Charges: Under the current structure, only one grouping of tiered charges exist so companies receive the benefit of aggregation in the factor as they move up to the lower charges associated with the 3 tiers of charges. Under the proposed framework, companies would not see such benefit as there are three grouping of tiered charges. Today a company begins to receive the full benefit of tiering above \$25B NAR; under the proposed structure a company may need to have \$75B NAR before receiving the full benefit of the lower charges.

We suggest a structure similar to what is done for disability income factors whereby the product category with the highest risk charges is considered first, followed by the product category with the next highest risk charges but recognize the amount of NAR in the first category before determining which tiered charge to use for the second product category. Subsequently the third product category considers the amount of NAR in the first two categories. For ULSG, there will be no change of their values for the tiers; "First 500 Million; Next 24,500 Million; Over 25,000 Million". For Term, there would be recognition of the amount of ULSG NAR before determining the first charge to use for Term NAR. Similarly, All Other Life would recognize the amounts for both ULSG and Term before determining its first charge. For example, a company with \$20B in ULSG, and \$10B in Term: ULSG would use the factors as proposed, Term would apply \$5B NAR using the Next 24,500 Million Term risk charge and \$5B NAR at the Over 25,000 Million Term risk charge. Other approaches, such as pro-rata allocation by NAAR, could be developed as well.

American Council of Life Insurers | 101 Constitution Ave, NW, Suite 700 | Washington, DC 20001-2133

The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States.

acli.com

- Clarification of definitions: We would appreciate greater clarification of relevant category definitions, particularly as it relates to pre-PBR business. We would like to understand if the definitions being proposed in the RBC instructions are consistent with definitions underlying the Academy's analysis. We would suggest explicitly defining the terms (particularly UL with secondary guarantees) in the instructions, rather than referencing another source.
- Improved tie-out: We believe that for greater consistency, it would be beneficial to develop tie-outs to the Annual Statement. Given our assumption in the prior comment, we believe it would be beneficial to update another Annual Statement component so the reported net amount of risk values can tie to something explicitly (perhaps on the Analysis of Increase or Exhibit of Life). We suggest that given the timing this change be contemplated for 2023 Annual Statement reporting, with appropriate changes made to the C-2 mortality instructions for the 2023 RBC reporting.
- Support Option 1: ACLI supports the Academy recommendation of "Option 1". We believe this approach fosters greater transparency and avoids confusion of business shifting between categories.

We appreciate the consideration of our comments and look forward to discussing on a future call. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Barfield".

cc: Dave Fleming, NAIC

NAIC BLANKS (E) WORKING GROUP

Blanks Agenda Item Submission Form

<p style="text-align: right;">DATE: <u>3/10/2022</u></p> <p>CONTACT PERSON: <u>Dave Fleming</u></p> <p>TELEPHONE: <u>816-783-8121</u></p> <p>EMAIL ADDRESS: <u>dfleming@naic.org</u></p> <p>ON BEHALF OF: <u>Life Risk-Based Capital (E) Working Group</u></p> <p>NAME: <u>Philip Barlow</u></p> <p>TITLE: <u>Chair</u></p> <p>AFFILIATION: <u>District of Columbia</u></p> <p>ADDRESS: _____</p>	<p style="text-align: center;"><u>FOR NAIC USE ONLY</u></p> <p>Agenda Item # _____</p> <p>Year <u>2022</u></p> <p>Changes to Existing Reporting <input checked="" type="checkbox"/> [X]</p> <p>New Reporting Requirement <input type="checkbox"/> []</p> <hr/> <p style="text-align: center;"><u>REVIEWED FOR ACCOUNTING PRACTICES AND PROCEDURES IMPACT</u></p> <p>No Impact <input type="checkbox"/> []</p> <p>Modifies Required Disclosure <input type="checkbox"/> []</p> <hr/> <p style="text-align: center;"><u>DISPOSITION</u></p> <p><input type="checkbox"/> [] Rejected For Public Comment</p> <p><input type="checkbox"/> [] Referred To Another NAIC Group</p> <p><input type="checkbox"/> [] Received For Public Comment</p> <p><input type="checkbox"/> [] Adopted Date _____</p> <p><input type="checkbox"/> [] Rejected Date _____</p> <p><input type="checkbox"/> [] Deferred Date _____</p> <p><input type="checkbox"/> [] Other (Specify) _____</p>
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BLANK(S) TO WHICH PROPOSAL APPLIES

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> [X] ANNUAL STATEMENT | <input type="checkbox"/> [] INSTRUCTIONS | <input type="checkbox"/> [] CROSSCHECKS |
| <input type="checkbox"/> [] QUARTERLY STATEMENT | <input checked="" type="checkbox"/> [X] BLANK | |
| <input checked="" type="checkbox"/> [X] Life, Accident & Health/Fraternal | <input type="checkbox"/> [] Separate Accounts | <input type="checkbox"/> [] Title |
| <input type="checkbox"/> [] Property/Casualty | <input type="checkbox"/> [] Protected Cell | <input type="checkbox"/> [] Other _____ |
| <input type="checkbox"/> [] Health | <input type="checkbox"/> [] Health (Life Supplement) | |

Anticipated Effective Date: Annual 2022

IDENTIFICATION OF ITEM(S) TO CHANGE

Update the AVR factors to correspond with the adopted RBC factors for the expanded bond designation categories.

REASON, JUSTIFICATION FOR AND/OR BENEFIT OF CHANGE**

The AVR factors are linked to the after-tax RBC factors. The Life Risk-Based Capital (E) Working Group adopted changes to the life and fraternal RBC factors for the expanded NAIC Designation Categories for bonds for 2021 yearend reporting. The AVR factors will need to be adjusted where the RBC factors have been changed.

NAIC STAFF COMMENTS

Comment on Effective Reporting Date: _____

Other Comments:

A worksheet showing comparison of AVR and after-tax RBC factors for 2017, the changes made for the 2018 tax changes and the AVR factors being proposed for 2022 is posted at the Life Risk-Based Capital (E) Working Group website.

The AVR maximum reserve factors were updated to reflect the existing relationship to the RBC after-tax factors. The AVR basic contribution and reserve object factors were updated to reflect the existing relationships to the maximum reserve factors.

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

Revised 7/18/2018

ANNUAL STATEMENT FOR THE YEAR 2022~~1~~ OF THE

ASSET VALUATION RESERVE

	Default Component			Equity Component			7 Total Amount (Cols. 3 + 6)
	1 Other Than Mortgage Loans	2 Mortgage Loans	3 Total (Cols. 1 + 2)	4 Common Stock	5 Real Estate and Other Invested Assets	6 Total (Cols. 4 + 5)	
1. Reserve as of December 31, prior year
2. Realized capital gains/(losses) net of taxes -General Account
3. Realized capital gains/(losses) net of taxes-Separate Accounts
4. Unrealized capital gains/(losses) net of deferred taxes-General Account
5. Unrealized capital gains/(losses) net of deferred taxes-Separate Accounts
6. Capital gains credited/(losses charged) to contract benefits, payments or reserves
7. Basic contribution.....
8. Accumulated balances (Lines 1 through 5 - 6 + 7).....
9. Maximum reserve
10. Reserve objective.....
11. 20% of (Line 10 - Line 8).....
12. Balance before transfers (Lines 8 + 11)
13. Transfers
14. Voluntary contribution
15. Adjustment down to maximum/up to zero.....
16. Reserve as of December 31, current year (Lines 12 + 13 + 14 + 15)

ANNUAL STATEMENT FOR THE YEAR 2022+ OF THE

**ASSET VALUATION RESERVE
 BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
 DEFAULT COMPONENT**

Line Number	NAIC Designation	Description	1 Book/ Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1+2+3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4x5)	7 Factor	8 Amount (Cols. 4x7)	9 Factor	10 Amount (Cols. 4x9)
LONG-TERM BONDS												
1		Exempt Obligations.....		XXX	XXX		0.0000		0.0000		0.0000	
2.1	1	NAIC Designation Category 1.A.....		XXX	XXX		0.00050.0002		0.00160.0007		0.00330.0013	
2.2	1	NAIC Designation Category 1.B.....		XXX	XXX		0.00050.0004		0.00160.0011		0.00330.0023	
2.3	1	NAIC Designation Category 1.C.....		XXX	XXX		0.00050.0006		0.00160.0018		0.00330.0035	
2.4	1	NAIC Designation Category 1.D.....		XXX	XXX		0.00050.0007		0.00160.0022		0.00330.0044	
2.5	1	NAIC Designation Category 1.E.....		XXX	XXX		0.00050.0009		0.00160.0027		0.00330.0055	
2.6	1	NAIC Designation Category 1.F.....		XXX	XXX		0.00050.0011		0.00160.0034		0.00330.0068	
2.7	1	NAIC Designation Category 1.G.....		XXX	XXX		0.00050.0014		0.00160.0042		0.00330.0085	
2.8		Subtotal NAIC 1 (2.1+2.2+2.3+2.4+2.5+2.6+2.7).....		XXX	XXX		XXX		XXX		XXX	
3.1	2	NAIC Designation Category 2.A.....		XXX	XXX		0.0021		0.00640.0063		0.01060.0105	
3.2	2	NAIC Designation Category 2.B.....		XXX	XXX		0.0021+0.0025		0.00640.0076		0.01060.0127	
3.3	2	NAIC Designation Category 2.C.....		XXX	XXX		0.0021+0.0036		0.00640.0108		0.01060.0180	
3.4		Subtotal NAIC 2 (3.1+3.2+3.3).....		XXX	XXX		XXX		XXX		XXX	
4.1	3	NAIC Designation Category 3.A.....		XXX	XXX		0.00990.0069		0.02630.0183		0.03760.0262	
4.2	3	NAIC Designation Category 3.B.....		XXX	XXX		0.0099		0.02630.0264		0.03760.0377	
4.3	3	NAIC Designation Category 3.C.....		XXX	XXX		0.00990.0131		0.02630.0350		0.03760.0500	
4.4		Subtotal NAIC 3 (4.1+4.2+4.3).....		XXX	XXX		XXX		XXX		XXX	
5.1	4	NAIC Designation Category 4.A.....		XXX	XXX		0.02450.0184		0.05720.0430		0.08170.0615	
5.2	4	NAIC Designation Category 4.B.....		XXX	XXX		0.02450.0238		0.05720.0555		0.08170.0793	
5.3	4	NAIC Designation Category 4.C.....		XXX	XXX		0.02450.0310		0.05720.0724		0.08170.1034	
5.4		Subtotal NAIC 4 (5.1+5.2+5.3).....		XXX	XXX		XXX		XXX		XXX	
6.1	5	NAIC Designation Category 5.A.....		XXX	XXX		0.06300.0472		0.11280.846		0.18800.1410	
6.2	5	NAIC Designation Category 5.B.....		XXX	XXX		0.06300.0663		0.11280.1188		0.18800.1980	
6.3	5	NAIC Designation Category 5.C.....		XXX	XXX		0.06300.0836		0.11280.1498		0.18800.2496	
6.4		Subtotal NAIC 5 (6.1+6.2+6.3).....		XXX	XXX		XXX		XXX		XXX	
7	6	NAIC 6.....		XXX	XXX		0.0000		0.2370		0.2370	
8		Total Unrated Multi-Class Securities Acquired by Conversion.....		XXX	XXX		XXX		XXX		XXX	
9		Total Long-Term Bonds (Sum of Lines 1+2.8+3.4+4.4+5.4+6.4+7+8).....		XXX	XXX		XXX		XXX		XXX	
PREFERRED STOCKS												
10	1	Highest Quality.....		XXX	XXX		0.0005		0.0016		0.0033	
11	2	High Quality.....		XXX	XXX		0.0021		0.0064		0.0106	
12	3	Medium Quality.....		XXX	XXX		0.0099		0.0263		0.0376	
13	4	Low Quality.....		XXX	XXX		0.0245		0.0572		0.0817	
14	5	Lower Quality.....		XXX	XXX		0.0630		0.1128		0.1880	
15	6	In or Near Default.....		XXX	XXX		0.0000		0.2370		0.2370	
16		Affiliated Life with AVR.....		XXX	XXX		0.0000		0.0000		0.0000	
17		Total Preferred Stocks (Sum of Lines 10 through 16).....		XXX	XXX		XXX		XXX		XXX	

ANNUAL STATEMENT FOR THE YEAR 2022+ OF THE

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
DEFAULT COMPONENT

Line Number	NAIC Designation	Description	1 Book/ Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1+2+3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4x5)	7 Factor	8 Amount (Cols. 4x7)	9 Factor	10 Amount (Cols. 4x9)
SHORT-TERM BONDS												
18		Exempt Obligations.....		XXX	XXX		0.0000		0.0000		0.0000	
19.1	1	NAIC Designation Category 1.A.....		XXX	XXX		0.00050.0002		0.00160.0007		0.00330.0013	
19.2	1	NAIC Designation Category 1.B.....		XXX	XXX		0.00050.0004		0.00160.0011		0.00330.0023	
19.3	1	NAIC Designation Category 1.C.....		XXX	XXX		0.00050.0006		0.00160.0018		0.00330.0035	
19.4	1	NAIC Designation Category 1.D.....		XXX	XXX		0.00050.0007		0.00160.0022		0.00330.0044	
19.5	1	NAIC Designation Category 1.E.....		XXX	XXX		0.00050.0009		0.00160.0027		0.00330.0055	
19.6	1	NAIC Designation Category 1.F.....		XXX	XXX		0.00050.0011		0.00160.0034		0.00330.0068	
19.7	1	NAIC Designation Category 1.G.....		XXX	XXX		0.00050.0014		0.00160.0042		0.00330.0085	
19.8		Subtotal NAIC 1 (19.1+19.2+19.3+19.4+19.5+19.6+19.7).....		XXX	XXX		XXX		XXX		XXX	
20.1	2	NAIC Designation Category 2.A.....		XXX	XXX		0.0021		0.00640.0063		0.01060.0105	
20.2	2	NAIC Designation Category 2.B.....		XXX	XXX		0.00210.0025		0.00640.0076		0.01060.0127	
20.3	2	NAIC Designation Category 2.C.....		XXX	XXX		0.00210.0036		0.00640.0108		0.01060.0180	
20.4		Subtotal NAIC 2 (20.1+20.2+20.3).....		XXX	XXX		XXX		XXX		XXX	
21.1	3	NAIC Designation Category 3.A.....		XXX	XXX		0.00990.0069		0.02630.0183		0.03760.0262	
21.2	3	NAIC Designation Category 3.B.....		XXX	XXX		0.0099		0.02630.0064		0.03760.0377	
21.3	3	NAIC Designation Category 3.C.....		XXX	XXX		0.00990.0131		0.02630.0350		0.03760.0500	
21.4		Subtotal NAIC 3 (21.1+21.2+21.3).....		XXX	XXX		XXX		XXX		XXX	
22.1	4	NAIC Designation Category 4.A.....		XXX	XXX		0.02450.0184		0.05720.0430		0.08170.0615	
22.2	4	NAIC Designation Category 4.B.....		XXX	XXX		0.02450.0238		0.05720.0555		0.08170.0793	
22.3	4	NAIC Designation Category 4.C.....		XXX	XXX		0.02450.0310		0.05720.0724		0.08170.1034	
22.4		Subtotal NAIC 4 (22.1+22.2+22.3).....		XXX	XXX		XXX		XXX		XXX	
23.1	5	NAIC Designation Category 5.A.....		XXX	XXX		0.06300.0472		0.11280.0846		0.18800.1410	
23.2	5	NAIC Designation Category 5.B.....		XXX	XXX		0.06300.0630		0.11280.1188		0.18800.1980	
23.3	5	NAIC Designation Category 5.C.....		XXX	XXX		0.06300.0836		0.11280.1498		0.18800.2496	
23.4		Subtotal NAIC 5 (23.1+23.2+23.3).....		XXX	XXX		XXX		XXX		XXX	
24	6	NAIC 6.....		XXX	XXX		0.0000		0.2370		0.2370	
25		Total Short-Term Bonds (18+19.8+20.4+21.4+22.4+23.4+24).....		XXX	XXX		XXX		XXX		XXX	
DERIVATIVE INSTRUMENTS												
26		Exchange Traded.....		XXX	XXX		0.0005		0.0016		0.0033	
27	1	Highest Quality.....		XXX	XXX		0.0005		0.0016		0.0033	
28	2	High Quality.....		XXX	XXX		0.0021		0.0064		0.0106	
29	3	Medium Quality.....		XXX	XXX		0.0099		0.0263		0.0376	
30	4	Low Quality.....		XXX	XXX		0.0245		0.0572		0.0817	
31	5	Lower Quality.....		XXX	XXX		0.0630		0.1128		0.1880	
32	6	In or Near Default.....		XXX	XXX		0.0000		0.2370		0.2370	
33		Total Derivative Instruments.....		XXX	XXX		XXX		XXX		XXX	
34		Total (Lines 9+ 17+ 25+ 33).....		XXX	XXX		XXX		XXX		XXX	

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
DEFAULT COMPONENT

Line Number	NAIC Designation	Description	1 Book/ Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1+2+3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4x5)	7 Factor	8 Amount (Cols. 4x7)	9 Factor	10 Amount (Cols. 4x9)
MORTGAGE LOANS												
In Good Standing:												
35		Farm Mortgages – CM1 – Highest Quality			XXX		0.0011		0.0057		0.0074	
36		Farm Mortgages – CM2 – High Quality			XXX		0.0040		0.0114		0.0149	
37		Farm Mortgages – CM3 – Medium Quality			XXX		0.0069		0.0200		0.0257	
38		Farm Mortgages – CM4 – Low Medium Quality			XXX		0.0120		0.0343		0.0428	
39		Farm Mortgages – CM5 – Low Quality			XXX		0.0183		0.0486		0.0628	
40		Residential Mortgages – Insured or Guaranteed			XXX		0.0003		0.0007		0.0011	
41		Residential Mortgages – All Other			XXX		0.0015		0.0034		0.0046	
42		Commercial Mortgages – Insured or Guaranteed			XXX		0.0003		0.0007		0.0011	
43		Commercial Mortgages – All Other – CM1 – Highest Quality			XXX		0.0011		0.0057		0.0074	
44		Commercial Mortgages – All Other – CM2 – High Quality			XXX		0.0040		0.0114		0.0149	
45		Commercial Mortgages – All Other – CM3 – Medium Quality			XXX		0.0069		0.0200		0.0257	
46		Commercial Mortgages – All Other – CM4 – Low Medium Quality			XXX		0.0120		0.0343		0.0428	
47		Commercial Mortgages – All Other – CM5 – Low Quality			XXX		0.0183		0.0486		0.0628	
Overdue, Not in Process:												
48		Farm Mortgages			XXX		0.0480		0.0868		0.1371	
49		Residential Mortgages – Insured or Guaranteed			XXX		0.0006		0.0014		0.0023	
50		Residential Mortgages - All Other			XXX		0.0029		0.0066		0.0103	
51		Commercial Mortgages – Insured or Guaranteed			XXX		0.0006		0.0014		0.0023	
52		Commercial Mortgages - All Other			XXX		0.0480		0.0868		0.1371	
In Process of Foreclosure:												
53		Farm Mortgages			XXX		0.0000		0.1942		0.1942	
54		Residential Mortgages - Insured or Guaranteed			XXX		0.0000		0.0046		0.0046	
55		Residential Mortgages - All Other			XXX		0.0000		0.0149		0.0149	
56		Commercial Mortgages - Insured or Guaranteed			XXX		0.0000		0.0046		0.0046	
57		Commercial Mortgages - All Other			XXX		0.0000		0.1942		0.1942	
58		Total Schedule B Mortgages (Sum of Lines 35 through 57)			XXX		XXX		XXX		XXX	
59		Schedule DA Mortgages			XXX		0.0034		0.0114		0.0149	
60		Total Mortgage Loans on Real Estate (Lines 58 + 59)			XXX		XXX		XXX		XXX	

ANNUAL STATEMENT FOR THE YEAR 2022+ OF THE

**ASSET VALUATION RESERVE
 BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
 EQUITY AND OTHER INVESTED ASSET COMPONENT**

Line Number	NAIC Designation	Description	1 Book/ Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1+2+3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4x5)	7 Factor	8 Amount (Cols. 4x7)	9 Factor	10 Amount (Cols. 4x9)
COMMON STOCK												
1		Unaffiliated Public.....		XXX	XXX		0.0000		0.1580 (a)		0.1580 (a)	
2		Unaffiliated Private.....		XXX	XXX		0.0000		0.1945		0.1945	
3		Federal Home Loan Bank.....		XXX	XXX		0.0000		0.0061		0.0097	
4		Affiliated Life with AVR		XXX	XXX		0.0000		0.0000		0.0000	
Affiliated Investment Subsidiary:												
5		Fixed Income Exempt Obligations					XXX		XXX		XXX	
6		Fixed Income Highest Quality					XXX		XXX		XXX	
7		Fixed Income High Quality					XXX		XXX		XXX	
8		Fixed Income Medium Quality					XXX		XXX		XXX	
9		Fixed Income Low Quality					XXX		XXX		XXX	
10		Fixed Income Lower Quality					XXX		XXX		XXX	
11		Fixed Income In or Near Default					XXX		XXX		XXX	
12		Unaffiliated Common Stock Public.....					0.0000		0.1580 (a)		0.1580 (a)	
13		Unaffiliated Common Stock Private.....					0.0000		0.1945		0.1945	
14		Real Estate.....					(b)		(b)		(b)	
15		Affiliated-Certain Other (See SVO Purposes & Procedures Manual).....		XXX	XXX		0.0000		0.1580		0.1580	
16		Affiliated - All Other.....		XXX	XXX		0.0000		0.1945		0.1945	
17		Total Common Stock (Sum of Lines 1 through 16)					XXX		XXX		XXX	
REAL ESTATE												
18		Home Office Property (General Account only).....					0.0000		0.0912		0.0912	
19		Investment Properties					0.0000		0.0912		0.0912	
20		Properties Acquired in Satisfaction of Debt.....					0.0000		0.1337		0.1337	
21		Total Real Estate (Sum of Lines 18 through 20)					XXX		XXX		XXX	
OTHER INVESTED ASSETS INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF BONDS												
22		Exempt Obligations		XXX	XXX		0.0000		0.0000		0.0000	
23	1	Highest Quality.....		XXX	XXX		0.0005		0.0016		0.0033	
24	2	High Quality		XXX	XXX		0.0021		0.0064		0.0106	
25	3	Medium Quality.....		XXX	XXX		0.0099		0.0263		0.0376	
26	4	Low Quality.....		XXX	XXX		0.0245		0.0572		0.0817	
27	5	Lower Quality.....		XXX	XXX		0.0630		0.1128		0.1880	
28	6	In or Near Default.....		XXX	XXX		0.0000		0.2370		0.2370	
29		Total with Bond Characteristics (Sum of Lines 22 through 28)		XXX	XXX		XXX		XXX		XXX	

ANNUAL STATEMENT FOR THE YEAR 2022+ OF THE

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
EQUITY AND OTHER INVESTED ASSET COMPONENT

Line Number	NAIC Designation	Description	1 Book/ Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1+2+3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols.4x5)	7 Factor	8 Amount (Cols. 4x7)	9 Factor	10 Amount (Cols.4x9)
INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF PREFERRED STOCKS												
30	1	Highest Quality		XXX	XXX		0.0005		0.0016		0.0033	
31	2	High Quality		XXX	XXX		0.0021		0.0064		0.0106	
32	3	Medium Quality		XXX	XXX		0.0099		0.0263		0.0376	
33	4	Low Quality		XXX	XXX		0.0245		0.0572		0.0817	
34	5	Lower Quality		XXX	XXX		0.0630		0.1128		0.1880	
35	6	In or Near Default		XXX	XXX		0.0000		0.2370		0.2370	
36		Affiliated Life with AVR		XXX	XXX		0.0000		0.0000		0.0000	
37		Total with Preferred Stock Characteristics (Sum of Lines 30 through 36)		XXX	XXX		XXX		XXX		XXX	
INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF MORTGAGE LOANS												
In Good Standing Affiliated:												
38		Mortgages – CM1 – Highest Quality			XXX		0.0011		0.0057		0.0074	
39		Mortgages – CM2 – High Quality			XXX		0.0040		0.0114		0.0149	
40		Mortgages – CM3 – Medium Quality			XXX		0.0069		0.0200		0.0257	
41		Mortgages – CM4 – Low Medium Quality			XXX		0.0120		0.0343		0.0428	
42		Mortgages – CM5 – Low Quality			XXX		0.0183		0.0486		0.0628	
43		Residential Mortgages – Insured or Guaranteed			XXX		0.0003		0.0007		0.0011	
44		Residential Mortgages – All Other		XXX	XXX		0.0015		0.0034		0.0046	
45		Commercial Mortgages – Insured or Guaranteed			XXX		0.0003		0.0007		0.0011	
Overdue, Not in Process Affiliated:												
46		Farm Mortgages			XXX		0.0480		0.0868		0.1371	
47		Residential Mortgages – Insured or Guaranteed			XXX		0.0006		0.0014		0.0023	
48		Residential Mortgages – All Other			XXX		0.0029		0.0066		0.0103	
49		Commercial Mortgages – Insured or Guaranteed			XXX		0.0006		0.0014		0.0023	
50		Commercial Mortgages – All Other			XXX		0.0480		0.0868		0.1371	
In Process of Foreclosure Affiliated:												
51		Farm Mortgages			XXX		0.0000		0.1942		0.1942	
52		Residential Mortgages – Insured or Guaranteed			XXX		0.0000		0.0046		0.0046	
53		Residential Mortgages – All Other			XXX		0.0000		0.0149		0.0149	
54		Commercial Mortgages – Insured or Guaranteed			XXX		0.0000		0.0046		0.0046	
55		Commercial Mortgages – All Other			XXX		0.0000		0.1942		0.1942	
56		Total Affiliated (Sum of Lines 38 through 55)			XXX		XXX		XXX		XXX	
57		Unaffiliated – In Good Standing With Covenants			XXX		(c)		(c)		(c)	
		Unaffiliated – In Good Standing Defeased With Government Securities			XXX							
58		Unaffiliated – In Good Standing Primarily Senior			XXX		0.0011		0.0057		0.0074	
59		Unaffiliated – In Good Standing All Other			XXX		0.0040		0.0114		0.0149	
60		Unaffiliated – Overdue, Not in Process			XXX		0.0069		0.0200		0.0257	
61		Unaffiliated – In Process of Foreclosure			XXX		0.0480		0.0868		0.1371	
62		Unaffiliated – In Process of Foreclosure			XXX		0.0000		0.1942		0.1942	
63		Total Unaffiliated (Sum of Lines 57 through 62)			XXX		XXX		XXX		XXX	
64		Total with Mortgage Loan Characteristics (Lines 56 + 63)			XXX		XXX		XXX		XXX	

ANNUAL STATEMENT FOR THE YEAR 2022+ OF THE

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
EQUITY AND OTHER INVESTED ASSET COMPONENT

Line Number	NAIC Designation	Description	1 Book/ Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1+2+3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4x5)	7 Factor	8 Amount (Cols. 4x7)	9 Factor	10 Amount (Cols. 4x9)
INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF COMMON STOCK												
65		Unaffiliated Public		XXX	XXX	0.0000		0.1580(a)		0.1580(a)		
66		Unaffiliated Private		XXX	XXX	0.0000		0.1945		0.1945		
67		Affiliated Life with AVR		XXX	XXX	0.0000		0.0000		0.0000		
68		Affiliated Certain Other (See SVO Purposes & Procedures Manual)		XXX	XXX	0.0000		0.1580		0.1580		
69		Affiliated Other - All Other		XXX	XXX	0.0000		0.1945		0.1945		
70		Total with Common Stock Characteristics (Sum of Lines 65 through 69)		XXX	XXX	XXX		XXX		XXX		
INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF REAL ESTATE												
71		Home Office Property (General Account only)				0.0000		0.0912		0.0912		
72		Investment Properties				0.0000		0.0912		0.0912		
73		Properties Acquired in Satisfaction of Debt				0.0000		0.1337		0.1337		
74		Total with Real Estate Characteristics (Sum of Lines 71 through 73)				XXX		XXX		XXX		
LOW INCOME HOUSING TAX CREDIT INVESTMENTS												
75		Guaranteed Federal Low-Income Housing Tax Credit				0.0003		0.0006		0.0010		
76		Non-guaranteed Federal Low-Income Housing Tax Credit				0.0063		0.0120		0.0190		
77		Guaranteed State Low Income Housing Tax Credit				0.0003		0.0006		0.0010		
78		Non-guaranteed State Low Income Housing Tax Credit				0.0063		0.0120		0.0190		
79		All Other Low-Income Housing Tax Credit				0.0273		0.0600		0.0975		
80		Total LIHTC (Sum of Lines 75 through 79)				XXX		XXX		XXX		
ALL OTHER INVESTMENTS												
81		NAIC 1 Working Capital Finance Investments		XXX		0.0000		0.0042		0.0042		
82		NAIC 2 Working Capital Finance Investments		XXX		0.0000		0.0137		0.0137		
83		Other Invested Assets - Schedule BA		XXX		0.0000		0.1580		0.1580		
84		Other Short-Term Invested Assets - Schedule DA		XXX		0.0000		0.1580		0.1580		
85		Total All Other (Sum of Lines 81, 82, 83 and 84)		XXX		XXX		XXX		XXX		
86		Total Other Invested Assets - Schedules BA & DA (Sum of Lines 29, 37, 64, 70, 74, 80 and 85)				XXX		XXX		XXX		

- (a) Times the company's weighted average portfolio beta (Minimum .1215, Maximum .2431).
- (b) Determined using same factors and breakdowns used for directly owned real estate.
- (c) This will be the factor associated with the risk category determined in the company generated worksheet.

A	B	C	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP										
COMPARISON OF FACTORS IN AVR AND LIFE RBC																For 2021 RBC bond factor changes																						
Adopted for 2018 tax changes																For 2021 RBC bond factor changes																						
RBC																RBC																						
RBC After-tax - Max Res																RBC After-tax - Max Res																						
divided by																divided by																						
Factor																Factor																						
Tax																Tax																						
Amount																Amount																						
(After-tax)																(After-tax)																						
Maximum																Maximum																						
Factor																Factor																						
(Pre-tax)																(Pre-tax)																						
Factor																Factor																						
Reserve																Reserve																						
Objective																Objective																						
As a %																As a %																						
of Max																of Max																						
Reserve																Reserve																						
Contrib																Contrib																						
Factor																Factor																						
12																23																						
13																24																						
14																25																						
15																26																						
16																27																						
(20*11)																(31*22)																						
17																28																						
18																29																						
19																30																						
20																31																						
21																32																						
(20-16)																(31-27)																						
(16/20)																(16/20)																						
22																23																						
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34																35																						
35																36																						
36																37																						
Bonds for LR002 and items reported as bonds on LR018																																						
NAIC 1																0.0005	16.67%	0.0016	50.00%	0.0033	0.0039	0.1575	0.0006	0.0033	0.0000	100.52%	NAIC Designation Category 1.A	0.0002	16.67%	0.0007	50.00%	0.0013	0.00158	0.1680	0.00027	0.00131	0.0000	100.52%
																											NAIC Designation Category 1.B	0.0004	16.67%	0.0011	50.00%	0.0023	0.00271	0.1680	0.00046	0.00225		
																											NAIC Designation Category 1.C	0.0006	16.67%	0.0018	50.00%	0.0035	0.00419	0.1680	0.00070	0.00349		
																											NAIC Designation Category 1.D	0.0007	16.67%	0.0022	50.00%	0.0044	0.00523	0.1680	0.00088	0.00435		
																											NAIC Designation Category 1.E	0.0009	16.67%	0.0027	50.00%	0.0055	0.00657	0.1680	0.00110	0.00547		
																											NAIC Designation Category 1.F	0.0011	16.67%	0.0034	50.00%	0.0068	0.00816	0.1680	0.00137	0.00679		
																											NAIC Designation Category 1.G	0.0014	16.67%	0.0042	50.00%	0.0085	0.01016	0.1680	0.00171	0.00845		
NAIC 2																0.0021	20.00%	0.0064	60.00%	0.0106	0.0126	0.1575	0.0020	0.0106	0.0000	99.92%	NAIC Designation Category 2.A	0.0021	20.00%	0.0063	60.00%	0.0105	0.01261	0.1680	0.00212	0.01049	0.0000	99.92%
																											NAIC Designation Category 2.B	0.0025	20.00%	0.0076	60.00%	0.0127	0.01523	0.1680	0.00256	0.01267		
																											NAIC Designation Category 2.C	0.0036	20.00%	0.0108	60.00%	0.0180	0.02168	0.1680	0.00364	0.01804		
NAIC 3																0.0099	26.25%	0.0263	70.00%	0.0376	0.0446	0.1575	0.0070	0.0376	0.0000	99.96%	NAIC Designation Category 3.A	0.0069	26.25%	0.0183	70.00%	0.0262	0.03151	0.1680	0.00529	0.02622	0.0000	99.96%
																											NAIC Designation Category 3.B	0.0099	26.25%	0.0264	70.00%	0.0377	0.04537	0.1680	0.00762	0.03775		
																											NAIC Designation Category 3.C	0.0131	26.25%	0.0390	70.00%	0.0500	0.06017	0.1680	0.01011	0.05006		
NAIC 4																0.0245	30.00%	0.0572	70.00%	0.0817	0.0970	0.1575	0.0153	0.0817	0.0000	100.00%	NAIC Designation Category 4.A	0.0184	30.00%	0.0430	70.00%	0.0615	0.07386	0.1680	0.01241	0.06145	0.0000	100.00%
																											NAIC Designation Category 4.B	0.0238	30.00%	0.0555	70.00%	0.0793	0.09535	0.1680	0.01602	0.07933		
																											NAIC Designation Category 4.C	0.0310	30.00%	0.0724	70.00%	0.1034	0.12428	0.1680	0.02088	0.10340		
NAIC 5																0.0630	33.50%	0.1128	60.00%	0.1880	0.2231	0.1575	0.0351	0.1880	0.0000	100.00%	NAIC Designation Category 5.A	0.0472	33.50%	0.0846	60.00%	0.1410	0.16942	0.1680	0.02846	0.14096	0.0000	100.00%
																											NAIC Designation Category 5.B	0.0663	33.50%	0.1188	60.00%	0.1980	0.23798	0.1680	0.03998	0.19800		
NAIC 6																0.0000	0.00%	0.2370	100.00%	0.2370	0.3000	0.2100	0.0630	0.2370	0.0000	100.00%	NAIC Designation Category 5.C	0.0836	33.50%	0.1498	60.00%	0.2496	0.30000	0.1680	0.05040	0.24960		
																											0.0000	0.00%	0.2370	100.00%	0.2370	0.3000	0.2100	0.0630	0.2370	0.0000	100.00%	
Items changed for 2018																Items changed for 2022																						
Factor has been adjusted for .97 discount																Factor based on ACLI proposal adopted 6/21																						
Basic contribution and reserve objective factors calculated at 2017 relationship to maximum reserve																Basic contribution and reserve objective factors calculated at 2017 relationship to maximum reserve																						
Basic contribution and reserve objective relationship to maximum reserve per ACLI - 4/23/18																Basic contribution and reserve objective relationship to maximum reserve per ACLI																						

Draft: 3/22/22

Life Risk-Based Capital (E) Working Group
Virtual Meeting
January 20, 2022

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Jan. 20, 2022. The following Working Group members participated: Philip Barlow, Chair (DC); Jennifer Li (AL); Thomas Reedy (CA); Wanchin Chou (CT); Sean Collins (FL); Mike Yanacheak and Carrie Mears (IA); Vincent Tsang (IL); Ben Slutsker (MN); William Leung (MO); Derek Wallman (NE); Seong-min Eom (NJ); Bill Carmello (NY); Mike Boerner and Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed Comments Received on the Academy C2 Mortality Work Group Recommendation

Brian Bayerle (American Council of Life Insurers—ACLI) presented the ACLI's comment letter (Attachment Four-B1) and said the ACLI is generally supportive of an update to the mortality factors. He highlighted the ACLI's desire for more analysis on the risk exposure periods and the ability for companies to adjust the mortality rate for emerging experience, along with greater analysis on the margins. Mr. Slutsker presented Minnesota's comments (Attachment Four-B2) highlighting a request to the American Academy of Actuaries (Academy) to reflect additional uncertainty on future mortality in light of the COVID-19 pandemic. He also noted the Academy's current proposed category breakdown and Minnesota's recommendation to have the categorization done based on guarantee duration similar to how valuation rates are assigned in the *Standard Valuation Law* (#820). Additionally, he noted Minnesota's suggestion to determine the C-2 mortality component based on the underlying guarantee duration in the policy with appropriate adjustments for certain types of policies. Mr. Barlow said he believes the categorization is a topic that will require more discussion, but his hope is that it can align with how information is presented in the annual statement to make it as objective as possible. Chris Trost (Academy) said there is always the challenge of relying on what is available in the annual statement versus more of a principle-based approach and having companies put products into specific categories based on their analysis. He said the reason the Academy chose the categories in the recommendation is they most closely follow the information in the annual statement and for principle-based reserves as well. While acknowledging that there will always be some imperfections, he said the Academy believes the higher level of differentiation is appropriate. He also commented that with respect to questions about pandemics, and specifically COVID-19, the Work Group added a component for an unknown sustained type of risk establishing a 2.5% annual probability that such an event can occur with a 5% severity so mortality rates would be 5% higher, and that would last for either the exposure period or for 10 years. He said the Academy could provide additional sensitivities around those assumptions to show the impact on factors. Mr. Carmello spoke to New York's comments (Attachment Four-B3) and highlighted New York's focus on the current pandemic and its concern that it may not be reflected sufficiently in the development of the proposed factors. He said he supports having more sensitivity tests included for the Working Group's consideration. To New York's comment on mortality improvement, Mr. Trost said the Academy could also provide sensitivities on that as well.

Mr. Barlow said it appears the two primary issues are the factors and categorization, and he asked if changes to the categorization would be structural. Dave Fleming (NAIC) said the categorization could change the structural presentation, but that presentation can be modified as a result of comments received from the exposure. He noted that the instructions, which include the factors, are included for information only, are not final, and are subject to a later exposure deadline. The Working Group agreed to expose the Academy's proposed structural changes (Attachment Four-B4) for a 45-day public comment period.

2. Discussed the Academy's Comment Letter on Longevity Reinsurance

Mr. Barlow thanked Ms. Eom for volunteering to chair the Longevity Risk (E/A) Subgroup and reminded Working Group members that the Subgroup's work is pending some of the work on the reserve side. Paul Navratil (Academy), chair of the Academy C2 Longevity Risk Work Group, said the purpose of the Academy's comment letter (Attachment Four-B5) is to continue the conversation, knowing that longevity reinsurance remains an item to be addressed by the Working Group, and to make the connection with VM-22, Statutory Maximum Valuation Interest Rates for Income Annuities, and consistency between the reserve work and what is ultimately done for capital.

3. Discussed the AVR and Bond Factor Changes

Mr. Barlow reminded the Working Group that changes to the asset valuation reserve (AVR) need to be made to correspond to the bond factor changes. Mr. Fleming said, as was done with the changes to AVR related to the risk-based capital (RBC) changes for tax reform, these changes are largely mechanical and retain the existing relationships. He said these are changes that will need to be adopted by the Blanks (E) Working Group, and he has been working with the ACLI to draft these to meet the needed timeline for year-end 2022 implementation.

Having no further business, the Life Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/2022 Spring National Meeting/Committee Meetings/Financial Condition (E) Committee/Capital Adequacy (E) Task Force/Life Risk-Based Capital (E) Working Group/LRBCWG 1-20-22 Minutes.docx



Brian Bayerle
Senior Actuary

January 11, 2022

Mr. Philip Barlow
Chair, NAIC Life Risk-Based Capital (E) Working Group (Life RBC)

Re: C-2 Mortality Factor Proposal

Dear Mr. Barlow:

The American Council of Life Insurers (ACLI) appreciates the opportunity to submit the following comments on the American Academy of Actuaries (the Academy) C-2 mortality factor proposal.

ACLI appreciates the diligent efforts of the Academy in the development of these factors, and the thoughtful questioning and efforts from Life RBC working group members. ACLI is generally supportive of the initiative to update the C-2 mortality factors. We believe the structural changes to the methodology to determine the factors makes sense, and particularly updating the mortality assumptions underlying the factors is appropriate. However, ACLI would like more analysis and justification for the assumptions regarding the risk exposure periods and the ability of companies to adjust mortality rates for emerging experience because we are unsure as to the consistency of these assumptions across product types. In addition, ACLI would support greater analysis of the margins. We note that both the proposed factors include a 5% margin, while both pre-PBR and post-PBR reserves likely include margins that significantly exceed this level.

Additionally, ACLI is supportive of Life RBC's goal of more frequent updates to the mortality factors. ACLI believes the frequency of updates should reflect the greater percentage of inforce on a PBR-basis over time, greater availability of relevant data, and evolving reserves and practices .

We appreciate the consideration of our comments and look forward to discussing on a future call. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'B Bayerle', is written in a cursive style.

cc: Dave Fleming, NAIC

American Council of Life Insurers | 101 Constitution Ave, NW, Suite 700 | Washington, DC 20001-2133

The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States.

acli.com



Date: 01/07/2022
To: Phillip Barlow, Chair of the Life Risk-Based Capital (E) Working Group
Subject: Life C-2 Mortality Factor Update

Thank you for the opportunity to provide comments on the Life C-2 Mortality Factor proposal. We applaud the Academy C-2 Mortality Work Group's efforts, and think this is a great analysis. There are a few comments we would like to make to consider as potential refinements to the proposed factor updates, which are discussed below.

Catastrophe Risk Component

The impact of updating the catastrophic component of the C-2 risk in the proposal, inclusive of removing the HIV scenarios, is a large decrease to the C-2 factors (-35% for large inforce size and -20% for small inforce size). However, the Academy C-2 Mortality Work Group mentioned on a prior NAIC Life RBC Working Group call that, due to timing, the analysis does not include impacts due to the emergence of COVID-19. Given that we are in the midst of a two-year pandemic and that C-2 factors are not frequently revised, we believe it would be prudent to reflect the current environment in the update.

Therefore, we would like to ask whether the Academy C-2 Mortality Working Group would be open considering an adjustment to reflect additional uncertainty of future mortality in light of COVID-19. Such uncertainty may reflect the impact of "long COVID", additional variants, or an increased likelihood of future pandemics. Given the status of the proposal, we acknowledge it may be challenging to come up with a sophisticated approach at this point, so we would be open to exploring any higher-level adjustments, such as employing sensitivity tests to pandemic shock probabilities and distribution of severities to determine a COVID-19 adjustment. In addition, one of the sensitivity tests in the report shows a small impact from increasing the probability of an unknown sustained catastrophe from 2.5% probability to 5.0% probability, but it may be worth considering higher probabilities or severities for this component in coming up for an adjustment to COVID-19 (to reflect the risk of future respiratory issues or long COVID), in addition to sensitivity testing pandemic risk.

Product Categories

The Academy's proposal to differentiate risks based on product duration is a welcome development, which permits companies to more accurately reflect C-2 mortality risk for their mix of inforce business. The current proposal breakdown categories into "ULSG", "Term", and "Other" with exposure periods of 20 years, 10 years, and 5 years respectively. Although the simplicity of this approach for differentiating product groups is consistent with the overall RBC framework, it also creates some unintuitive results:

- **ULSG Categorization** – The proposal contains separate charges for "ULSG" vs. "other", where "other" is about half the ULSG charge. However, "ULSG" is defined at issue as a secondary guarantee less than or equal to 5 years. This results in a universal life policy with a 5-year secondary guarantee having half the

charge of a universal life with a 6-year secondary guarantee. In contrast, a 40-year secondary guarantee will have the same mortality risk charge as a 6-year secondary guarantee.

- **Whole Life Categorization** – Similar to the ULSG observation described above, a non-participating whole life with low funding values would also get half the charge of universal life with a 6-year secondary guarantee. This is due to the underlying assumption that the non-participating whole life mortality risk is based on a 5-year exposure period, which is shorter than the average contract life of a whole life policy.
- **Term Categorization** – The term category is based on a 10-year liability exposure period. Therefore, the C-2 term charge (less than ULSG) might work for 10-year level term to 20-year level term, but the ULSG charge may be more appropriate for reflecting the associated risk for a 30-year level term.

As an alternative, we recommend differentiating the assignment to the 5, 10, and 20-year exposure period factors based on the guarantee duration, similar to how valuation rates are assigned in the Standard Valuation Law:

Guarantee Duration (Years)	Exposure Period
10 or less	5 Years
More than 10, but not more than 20	10 Years
More than 20	20 Years

We believe this modification would maintain simplicity (as this split is already required for valuation purposes), while also avoiding some of the unintuitive impacts in the original proposal described above.

In addition, we would recommend the NAIC Life RBC Working Group’s consideration of using an exposure period of 30 years for even longer guarantees, as the Academy C-2 Mortality Working Group has already calculated the factors associated with 30 years, which is disclosed in the exposed report.

Experience Pass-Through

One challenge with proposing factor differentiation, whether by other product line (as initially proposed) or guarantee duration (as described in this letter), is how to reflect the reduction in mortality risk for policies that are able to pass mortality experience to the policyholder through a non-guaranteed element. Examples include dividends on a participating whole life policies and cost of insurance charges on universal life policies without a secondary guarantee, where unfavorable company mortality experience could be offset by modifying these features on inforce policies. The Academy C-2 Morality Working Group attempts to address this issue by assigning policies with these non-guaranteed elements to proposed factors based on a 5-year exposure period (i.e., “other” category).

We would be interested in analysis to support why participating whole life or universal life without secondary guarantees should be assigned to a 5-year exposure period. If this was only intended to be a simplistic

conceptual adjustment to reflect less mortality risk in light of non-guarantee elements, then we would be interested if the Academy C-2 Mortality Working Group has any additional thoughts on how to more accurately quantify the decrease in mortality risk due to the presence of such features. For example, running a participating vs. non-participating whole life policy, or universal life with a secondary guarantee vs. without a secondary guarantee.

In the absence of this type of analysis, we think that assigning factors associated with a 5-year exposure may be too low (as this is about half of a 20-year exposure period). Instead, we would suggest determining the C-2 mortality component based on the underlying guarantee duration in the policy, and then subsequently adjusting the C-2 component downward for certain types of policies. For example, allow participating whole life policies and universal life policies with no or short secondary guarantees (e.g., 10 years or less) to receive a reduction factor that is closer to -20% (rather than -50%). Although non-guaranteed elements can offset some of the company mortality experience volatility, permanent policies still contain long-term death benefit guarantees that may have material mortality risk (even if lower than policyholder behavior risk on a relative basis).

Conclusion

We believe the Academy C-2 Mortality Work Group has a great proposal, and that the adjustments described in this letter for catastrophe risk and guarantee duration will only make it stronger. Regardless, we are pleased to see the proposed updates to C-2, which would serve as a significant and more update-to-date improvement over the current factors. As always, we appreciate the Academy's hard work and intellectual rigor on this project, as well as the NAIC Life RBC Working Group providing us with the opportunity to comment.

Submitted via email:

We have the following comments regarding the C-2 mortality factor proposal:

1. The proposal replaces the 1% mortality improvement factor in the current model with the 2017 improvement scale from VM-20. We do not support the inclusion of any mortality improvement in the C-2 mortality factors.
2. The proposal for pandemic risk seems rather low given that we are currently in a pandemic with much higher mortality.

William B. Carmello, Jr., FSA, MAAA

Chief Life Actuary

New York State Department of Financial Services



AMERICAN ACADEMY *of* ACTUARIES

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January 20, 2022

Mr. Philip Barlow
Chair, Life Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners (NAIC)

Via e-mail: Dave Fleming (dfleming@naic.org)

Re: Structural Updates to Life RBC C-2 Mortality

Dear Philip,

On behalf of the C-2 Mortality Work Group of the American Academy of Actuaries¹, we are providing two options for structural updates to the Life RBC C-2 Mortality factors for consideration to be exposed by 1/31/2022. Also included are draft instructions for informational purposes which are subject to a different exposure deadline of 4/30/2022.

Sincerely,

Chris Trost, MAAA, FSA
Chairperson, C-2 Mortality Work Group
Ryan Fleming, MAAA, FSA
Vice Chairperson, C-2 Mortality Work Group
American Academy of Actuaries

¹ The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

Capital Adequacy (E) Task Force
RBC Proposal Form

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

DATE: <u>1/20/22</u>	<u>FOR NAIC USE ONLY</u>
CONTACT PERSON: <u>Ryan Fleming, MAAA, FSA</u>	Agenda Item # _____
TELEPHONE: <u>(414) 665-5020</u>	Year <u>2022</u>
EMAIL ADDRESS: <u>ryanfleming@northwesternmutual.com</u>	<u>DISPOSITION</u>
ON BEHALF OF: <u>AAA C-2 Mortality Work Group</u>	<input type="checkbox"/> ADOPTED _____
NAME: <u>Ryan Fleming, MAAA, FSA</u>	<input type="checkbox"/> REJECTED _____
TITLE: <u>Vice Chairperson</u>	<input type="checkbox"/> DEFERRED TO _____
AFFILIATION: <u>American Academy of Actuaries</u>	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP
ADDRESS: <u>1850 M Street NW, Suite 300</u>	<input type="checkbox"/> EXPOSED _____
<u>Washington, DC 20036</u>	<input type="checkbox"/> OTHER (SPECIFY) _____

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

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

DESCRIPTION OF CHANGE(S)

Updated blank for C2 Life Mortality on LR025, LR030 and LR031. Draft instructions are included for informational purposes and are subject to a different exposure deadline of 4/30/22.

REASON OR JUSTIFICATION FOR CHANGE **

Structural changes necessary to facilitate the implementation of updated C2 life mortality factors and expanded categories.

Additional Staff Comments:

** This section must be completed on all forms.

Revised 2-2019

LIFE INSURANCE			(1)		(2)
DRAFT - OPTION 1		Annual Statement Source	Statement Value	Factor	RBC Requirement
Individual & Industrial Life Net Amount at Risk					
(1)	Ordinary Life In Force	Exhibit of Life Insurance Column 4 Line 23 x 1000			
(2)+(3)	Plus Industrial Life In Force	Exhibit of Life Insurance Column 2 Line 23 x 1000			
(3)	Total Individual & Industrial Life In Force	Lines (1) + (2)			
(4)+(5)	Less Ordinary Life Reserves	Exhibit 5 Column 4 Line 0199999			
(5)+(6)	Less Plus Industrial Life Reserves	Exhibit 5 Column 3 Line 0199999			
(6)+(5)	Less Plus Ordinary Life Separate Accounts	Separate Accounts Exhibit 3 Column 3 Line 0199999			
(7)+(6)	Less Plus Ordinary & Industrial Life Modified Coinsurance Assumed Reserves	Schedule S Part 1 Section 1 Column 12, in part ‡			
(8)+(7)	Plus Less Ordinary & Industrial Life Modified Coinsurance Ceded Reserves	Schedule S Part 3 Section 1 Column 14, in part ‡			
(9)	Total Individual & Industrial Life Reserves	Lines (4) + (5) + (6) + (7) - (8)			
(10)+(9)	Total Individual and Industrial Life Net Amount at Risk	Lines (3) + (7) - (2) - (4) - (5) - (6) (3) - (9)		X	+
Risk					
(11)	Universal Life with Secondary Guarantees In Force	Company Records*			
(12)	Less Universal Life with Secondary Guarantees Reserves	Analysis of Increase in Reserves During the Year - Individual Life Insurance Column 7 Line 15			
(13)	Total Universal Life with Secondary Guarantees Net Amount at Risk	Lines (11) - (12)		X	†
(14)	Term Life In Force	Company Records*			
(15)	Less Term Life Reserves	Analysis of Increase in Reserves During the Year - Individual Life Insurance Column 4 Line 15			
(16)	Total Term Life Net Amount at Risk	Lines (14) - (15)		X	†
(17)	All Other Life In Force	Lines (3) - (11) - (14)			
(18)	Less All Other Life Reserves	Lines (9) - (12) - (15)			
(19)	All Other Life Net Amount at Risk	Lines (17) - (18)		X	†
(20)	Total Individual & Industrial Life	Lines (13) + (16) + (19)			
Group and Credit Life Net Amount at Risk					
(21)+(20)	Group Life In Force	Exhibit of Life Insurance Column 9 Line 23 x 1000			
(22)+(23)	Plus Credit Life In Force	Exhibit of Life Insurance Column 6 Line 23 x 1000			
(23)+(24)	Less Group FEGLI In Force	Exhibit of Life Insurance Column 4 Line 43 x 1000			
(24)+(24)	Less Group SGLI In Force	Exhibit of Life Insurance Column 4 Line 44 x 1000			
(25)+(24)	Less Credit FEGLI In Force	Exhibit of Life Insurance Column 2 Line 43 x 1000			
(26)+(25)	Less Credit SGLI In Force	Exhibit of Life Insurance Column 2 Line 44 x 1000			
(27)	Total Group & Credit Life In Force excluding FEGLI/SGLI	Lines (21) + (22) - (23) - (24) - (25) - (26)			
(28)+(22)	Less Group Life Reserves	Exhibit 5 Column 6 Line 0199999			
(29)+(22)	Less Plus Credit Life Reserves	Exhibit 5 Column 5 Line 0199999			
(30)+(22)	Less Plus Group Life Separate Accounts	Separate Accounts Exhibit 3 Column 4 Line 0199999			
(31)+(22)	Less Plus Group & Credit Life Modified Coinsurance Assumed Reserves	Schedule S Part 1 Section 1 Column 12, in part ‡			
(32)+(22)	Plus Less Group & Credit Life Modified Coinsurance Ceded Reserves	Schedule S Part 3 Section 1 Column 14, in part ‡			
(33)	Total Group & Credit Life Reserves	Lines (28) + (29) + (30) + (31) - (32)			
(34)+(20)	Total Group and Credit Life Net Amount at Risk excluding FEGLI/SGLI	Lines (9) - (12) - (15) - (18) - (22) - (23) - (24) - (25) - (26) - (28) - (29) - (30) - (31) - (32)		X	+
(35)	Group & Credit Life In Force with Remaining Rate Terms 36 Months and Under	Company Records*			
(36)	Less Group & Credit Life Reserves with Remaining Rate Terms 36 Months and Under	Company Records*			
(37)	Group & Credit Life Net Amounts at Risk with Remaining Rate Terms 36 Months and Under	Lines (35) - (36)		X	†
(38)	Group & Credit Life In Force with Remaining Rate Terms Over 36 Months	Lines (27) - (35)			
(39)	Less Group & Credit Life Reserves with Remaining Rate Terms Over 36 Months	Lines (33) - (36)			
(40)	Group & Credit Life Net Amount at Risk with Remaining Rate Terms Over 36 Months	Lines (38) - (39)		X	†
(41)+(40)	FEGLI/SGLI In Force	Exhibit of Life Insurance Sum of Column 2 and 4 Line 43 and 44 x 1000 44 x 1000		X	0.0008
(42)	Total Group & Credit Life	Lines (37) + (40) + (41)			
(43)+(42)	Total Life	Lines (8) + (20) + (41) (20) + (42)			

* The definitions are specified in the Life Insurance section of the risk-based capital instructions
 † The tiered calculation is illustrated in the Life Insurance section of the risk-based capital instructions.
 ‡ Include only the portion which relates to policy reserves that, if written on a direct basis, would be included on Exhibit 5.

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

LIFE INSURANCE
 DRAFT - OPTION 2

	Annual Statement Source	(1) Statement Value	Factor	(2) RBC Requirement
Individual & Industrial Life Net Amount at Risk				
(1)	Ordinary Life In Force	Exhibit of Life Insurance Column 4 Line 23 x 1000		
(2)+(3)	Plus Industrial Life In Force	Exhibit of Life Insurance Column 2 Line 23 x 1000		
(3)	Total Individual & Industrial Life In Force	Lines (1) + (2)		
(4)+(5)	Less Ordinary Life Reserves	Exhibit 5 Column 4 Line 0199999		
(5)+(6)	Less Plus Industrial Life Reserves	Exhibit 5 Column 3 Line 0199999		
(6)+(5)	Less Plus Ordinary Life Separate Accounts	Separate Accounts Exhibit 3 Column 3 Line 0199999		
(7)+(6)	Less Plus Ordinary & Industrial Life Modified Coinsurance Assumed Reserves	Schedule S Part 1 Section 1 Column 12, in part ‡		
(8)+(7)	Plus Less Ordinary & Industrial Life Modified Coinsurance Ceded Reserves	Schedule S Part 3 Section 1 Column 14, in part ‡		
(9)	Total Individual & Industrial Life Reserves	Lines (4) + (5) + (6) + (7) - (8)		
(10)+(9)	Total Individual and Industrial Life Net Amount at Risk	Lines (3) + (9) - (2) - (4) - (5) - (6) (3) - (9)		
	Risk		X	+ -
(11)	Life Policies with Pricing Flexibility In Force	Company Records*		
(12)	Less Life Policies with Pricing Flexibility In Force Reserves	Company Records*		
(13)	Total Life Policies with Pricing Flexibility Net Amount at Risk	Lines (11) - (12)	X	† -
(14)	Term Life Policies without Pricing Flexibility In Force	Company Records*		
(15)	Less Term Life Policies without Pricing Flexibility Reserves	Company Records*		
(16)	Total Term Life Policies without Pricing Flexibility Net Amount at Risk	Lines (14) - (15)	X	† -
(17)	Permanent Life Policies without Pricing Flexibility In Force	Lines (3) - (11) - (14)		
(18)	Less Permanent Life Policies without Pricing Flexibility Reserves	Lines (9) - (12) - (15)		
(19)	Permanent Life Policies without Pricing Flexibility Net Amount at Risk	Lines (17) - (18)	X	† -
(20)	Total Individual & Industrial Life	Lines (13) + (16) + (19)		
Group and Credit Life Net Amount at Risk				
(21)+(20)	Group Life In Force	Exhibit of Life Insurance Column 9 Line 23 x 1000		
(22)+(23)	Plus Credit Life In Force	Exhibit of Life Insurance Column 6 Line 23 x 1000		
(23)+(24)	Less Group FEGLI In Force	Exhibit of Life Insurance Column 4 Line 43 x 1000		
(24)+(24)	Less Group SGLI In Force	Exhibit of Life Insurance Column 2 Line 44 x 1000		
(25)+(24)	Less Credit FEGLI In Force	Exhibit of Life Insurance Column 2 Line 43 x 1000		
(26)+(25)	Less Credit SGLI In Force	Exhibit of Life Insurance Column 2 Line 44 x 1000		
(27)	Total Group & Credit Life In Force excluding FEGLI/SGLI	Lines (21) + (22) - (23) - (24) - (25) - (26)		
(28)+(22)	Less Group Life Reserves	Exhibit 5 Column 6 Line 0199999		
(29)+(22)	Less Plus Credit Life Reserves	Exhibit 5 Column 5 Line 0199999		
(30)+(22)	Less Plus Group Life Separate Accounts	Separate Accounts Exhibit 3 Column 4 Line 0199999		
(31)+(22)	Less Plus Group & Credit Life Modified Coinsurance Assumed Reserves	Schedule S Part 1 Section 1 Column 12, in part ‡		
(32)+(22)	Plus Less Group & Credit Life Modified Coinsurance Ceded Reserves	Schedule S Part 3 Section 1 Column 14, in part ‡		
(33)	Total Group & Credit Life Reserves	Lines (28) + (29) + (30) + (31) - (32)		
(34)+(20)	Total Group and Credit Life Net Amount at Risk excluding FEGLI/SGLI	Lines (27) - (43) - (49) - (40) - (41) - (42) - (44) - (45) (27) - (33) - (46) - (47) - (48)	X	+ -
(35)	Group & Credit Life In Force with Remaining Rate Terms 36 Months and Under	Company Records*		
(36)	Less Group & Credit Life Reserves with Remaining Rate Terms 36 Months and Under	Company Records*		
(37)	Group & Credit Life Net Amounts at Risk with Remaining Rate Terms 36 Months and Under	Lines (35) - (36)	X	† -
(38)	Group & Credit Life In Force with Remaining Rate Terms Over 36 Months	Lines (27) - (35)		
(39)	Less Group & Credit Life Reserves with Remaining Rate Terms Over 36 Months	Lines (33) - (36)		
(40)	Group & Credit Life Net Amount at Risk with Remaining Rate Terms Over 36 Months	Lines (38) - (39)	X	† -
(41)+(34)	FEGLI/SGLI In Force	Exhibit of Life Insurance Sum of Column 2 and 4 Line 43 and 44 x 1000 44 x 1000	X	0.0008 =
(42)	Total Group & Credit Life	Lines (37) + (40) + (41)		
(43)+(20)	Total Life	Lines (8) - (20) + (34) (20) + (42)		

* The definitions are specified in the Life Insurance section of the risk-based capital instructions
 † The tiered calculation is illustrated in the Life Insurance section of the risk-based capital instructions.
 ‡ Include only the portion which relates to policy reserves that, if written on a direct basis, would be included on Exhibit 5.

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

Company Name

Confidential when Completed

NAIC Company Code

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

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

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

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

LR030

Company Name

Confidential when Completed

NAIC Company Code

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	=
<u>Preferred Stock</u>				
(038) Unaffiliated Preferred Stock NAIC 1	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (1) + LR018 Off-Balance Sheet Collateral Column (3) Line (9)		X 0.1575	=
(039) Unaffiliated Preferred Stock NAIC 2	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (2) + LR018 Off-Balance Sheet Collateral Column (3) Line (10)		X 0.1575	=
(040) Unaffiliated Preferred Stock-NAIC 3	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (3) + LR018 Off-Balance Sheet Collateral Column (3) Line (11)		X 0.1575	=
(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	=

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

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

LR030

Company Name

Confidential when Completed

NAIC Company Code

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 0.1575	=
(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.

LR030

Company Name

Confidential when Completed

NAIC Company Code

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

			(1)		(2)
		Source	RBC Amount	Tax Factor	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)			=
<u>C-0 Affiliated Common Stock</u>					
(110)	Off-Balance Sheet and Other Items	LR017 Off-Balance Sheet and Other Items Column (5) Line (27)		X 0.1575	=
(111)	Off-Balance Sheet Items Reduction - Reinsurance	LR017 Off-Balance Sheet and Other Items Column (5) Line (28)		X 0.2100	=
(112)	Off-Balance Sheet Items Increase - Reinsurance	LR017 Off-Balance Sheet and Other Items Column (5) Line (29)		X 0.2100	=
(113)	Affiliated US Property - Casualty Insurers Directly Owned	LR042 Summary for Affiliated Investments Column (4) Line (1)		X 0.2100	=
(114)	Affiliated US Life Insurers Directly Owned	LR042 Summary for Affiliated Investments Column (4) Line (2)		X 0.2100	=
(115)	Affiliated US Health Insurers Directly and Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (3)		X 0.2100	=
(116)	Affiliated US Property - Casualty Insurers Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (4)		X 0.2100	=
(117)	Affiliated US Life Insurers Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (5)		X 0.2100	=
(118)	Affiliated Alien Life Insurers - Canadian	LR042 Summary for Affiliated Investments Column (4) Line (8)		X 0.2100	=
(119)	Affiliated Alien Life Insurers - All Others	LR042 Summary for Affiliated Investments Column (4) Line (9)		X 0.0000	=
(120)	Subtotal for C-0 Affiliated Common Stock	Lines (110)-(111)+(112)+(113)+(114)+(115)+(116)+(117)+(118)+(119)			=
<u>Common Stock</u>					
(121)	Unaffiliated Common Stock	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (17) + LR018 Off-Balance Sheet Collateral Column (3) Line (16)		X 0.2100	=
(122)	Credit for Hedging - Common Stock	LR015 Hedged Asset Common Stock Schedule Column (10) Line (0299999)		X 0.2100	=
(123)	Stock Reduction - Reinsurance	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (19)		X 0.2100	=
(124)	Stock Increase - Reinsurance	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (20)		X 0.2100	=
(125)	BA Common Stock Unaffiliated	LR008 Other Long-Term Assets Column (5) Line (47)		X 0.2100	=
(126)	BA Common Stock Affiliated - C-1cs	LR008 Other Long-Term Assets Column (5) Line (49.2)		X 0.2100	=
(127)	Common Stock Concentration Factor	LR011 Common Stock Concentration Factor Column (6) Line (6)		X 0.2100	=
(128)	NAIC 01 Working Capital Finance Notes	LR008 Other Long-Term Assets Column (5) Line (51.1)		X 0.1575	=
(129)	NAIC 02 Working Capital Finance Notes	LR008 Other Long-Term Assets Column (5) Line (51.2)		X 0.1575	=
(130)	Affiliated Preferred Stock and Common Stock - Holding Company in Excess of Indirect Subs	LR042 Summary for Affiliated Investments Column (4) Line (7)		X 0.2100	=
(131)	Affiliated Preferred Stock and Common Stock - All Other	LR042 Summary for Affiliated Investments Column (4) Line (13)		X 0.2100	=
(132)	Total for C-1cs Assets	Lines (121)-(122)-(123)+(124)+(125)+(126)+(127)+(128)+(129)+(130)+(131)			=
<u>Insurance Risk</u>					
(133)	Disability Income Premium	LR019 Health Premiums Column (2) Lines (21) through (27)		X 0.2100	=

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

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

LR030

Company Name

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NAIC Company Code

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

		(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) Individual & Industrial Life Insurance C-2 Risk	LR025 Life Insurance Column (2) Line (39) (20)	_____	X 0.2100	= _____
(136) Group & Credit Life Insurance C-2 Risk	LR025 Life Insurance Column (2) Lines (39) and (21) (42)	_____	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 + 2 * (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)	=====		=====

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

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

LR030

CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL
 Company Name

Confidential when Completed

NAIC Company Code ⁽¹⁾

	Source	RBC Requirement
<u>Insurance Affiliates and Misc. Other Amounts (C-0)</u>		
(1) Affiliated US Property-Casualty Insurers Directly Owned	LR042 Summary for Affiliated Investments Column (4) Line (1)	_____
(2) Affiliated US Life Insurers Directly Owned	LR042 Summary for Affiliated Investments Column (4) Line (2)	_____
(3) Affiliated US Health Insurers Directly and Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (3)	_____
(4) Affiliated US Property-Casualty Insurers Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (4)	_____
(5) Affiliated US Life Insurers Indirectly Owned	LR042 Summary for Affiliated Investments Column (4) Line (5)	_____
(6) Affiliated Alien Life Insurers - Canadian	LR042 Summary for Affiliated Investments Column (4) Line (8)	_____
(7) Affiliated Alien Life Insurers - All Others	LR042 Summary for Affiliated Investments Column (4) Line (9)	_____
(8) Off-Balance Sheet and Other Items	LR017 Off-Balance Sheet and Other Items Column (5) Line (34)	_____
(9) Total (C-0) - Pre-Tax	Sum of Lines (1) through (8)	_____
(10) (C-0) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (120)	_____
(11) Net (C-0) - Post-Tax	Line (9) - Line (10)	=====
<u>Asset Risk - Unaffiliated Common Stock and Affiliated Non-Insurance Stock (C-1cs)</u>		
(12) Schedule D Unaffiliated Common Stock	LR005 Unaffiliated Common Stock Column (5) Line (21) + LR018 Off-Balance Sheet Collateral Column (3) Line (16)	_____
(13) Schedule BA Unaffiliated Common Stock	LR008 Other Long-Term Assets Column (5) line (47)	_____
(14) Schedule BA Affiliated Common Stock - C-1cs	LR008 Other Long-Term Assets Column (5) line (49.2)	_____
(15) Common Stock Concentration Factor	LR011 Common Stock Concentration Factor Column (6) Line (6)	_____
(16) Affiliated Preferred Stock and Common Stock - Holding Company in Excess of Indirect Subsidiaries	LR042 Summary for Affiliated Investments Column (4) Line (7)	_____
(17) Affiliated Preferred Stock and Common Stock - All Other	LR042 Summary for Affiliated Investments Column (4) Line (13)	_____
(18) Total (C-1cs) - Pre-Tax	Sum of Lines (12) through (17)	_____
(19) (C-1cs) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (132)	_____
(20) Net (C-1cs) - Post-Tax	Line (18) - Line (19)	=====
<u>Asset Risk - All Other (C-1a)</u>		
(21) Bonds after Size Factor	LR002 Bonds Column (2) Line (27) + LR018 Off-Balance Sheet Collateral Column (3) Line (8)	_____
(22) Mortgages (including past due and unpaid taxes)	LR004 Mortgages Column (6) Line (31)	_____
(23) Unaffiliated Preferred Stock	LR005 Unaffiliated Preferred and Common Stock Column (5) Line (10) + LR018 Off-Balance Sheet Collateral Column (3) Line (15)	_____
(24) Affiliated Preferred Stock and Common Stock - Investment Subsidiaries	LR042 Summary for Affiliated Investments Column (4) Line (6)	_____
(25) Affiliated Preferred Stock and Common Stock - Parent	LR042 Summary for Affiliated Investments Column (4) Line (10)	_____
(26) Affiliated Preferred Stock and Common Stock - Property and Casualty Insurers not Subject to Risk-Based Capital	LR042 Summary for Affiliated Investments Column (4) Line (11)	_____
(27) Affiliated Preferred Stock and Common Stock - Life Insurers not Subject to Risk-Based Capital	LR042 Summary for Affiliated Investments Column (4) Line (12)	_____
(28) Affiliated Preferred Stock and Common Stock - Publicly Traded Insurers Held at Fair Value (excess of statement value over book value)	LR042 Summary for Affiliated Investments Column (4) Line (14)	_____
(29) Separate Accounts with Guarantees	LR006 Separate Accounts Column (3) Line (7)	_____

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

LR031

CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL (CONTINUED)

Confidential when Completed

NAIC Company Code

Company Name	Source	(1) RBC Requirement
(30) Synthetic GIC's (C-1o)	LR006 Separate Accounts Column (3) Line (8)	_____
(31) Surplus in Non-Guaranteed Separate Accounts	LR006 Separate Accounts Column (3) Line (13)	_____
(32) Real Estate (gross of encumbrances)	LR007 Real Estate Column (3) Line (13)	_____
(33) Schedule BA Real Estate (gross of encumbrances)	LR007 Real Estate Column (3) Line (25)	_____
(34) Other Long-Term Assets	LR008 Other Long-Term Assets Column (5) Line (56) + LR018 Off-Balance Sheet Collateral Column (3) Line (17) + Line (18)	_____
(35) Schedule BA Mortgages	LR009 Schedule BA Mortgages Column (6) Line (23)	_____
(36) Concentration Factor	LR010 Asset Concentration Factor Column (6) Line (62) Grand Total Page	_____
(37) Miscellaneous	LR012 Miscellaneous Assets Column (2) Line (21)	_____
(38) Replication Transactions and Mandatory Convertible Securities	LR013 Replication (Synthetic Asset) Transactions and Mandatory Convertible Securities Column (7) Line (9999999)	_____
(39) Reinsurance	LR016 Reinsurance Column (4) Line (17)	_____
(40) Total (C-1o) - Pre-Tax	Sum of Lines (21) through (39)	_____
(41) (C-1o) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (109)	_____
(42) Net (C-1o) - Post-Tax	Line (40) - Line (41)	=====
<u>Insurance Risk (C-2)</u>		
(43) Individual and Industrial Life Insurance	LR025 Life Insurance Column (2) Line (8)-(20)	_____
(44) Group and Credit Life Insurance and FEGLI/SGLI	LR025 Life Insurance Column (2) Lines (20) and (21) (42)	_____
(44b) Longevity Risk	LR025-A Longevity Risk Column (2) Line (5)	_____
(45) Total Health Insurance	LR024 Health Claim Reserves Column (4) Line (18)	_____
(46) Premium Stabilization Reserve Credit	LR026 Premium Stabilization Reserves Column (2) Line (10)	_____
(47) Total (C-2) - Pre-Tax	$L(45) + L(46) + \text{Greatest of [Guardrail Factor * (L(43)+L(44)), Guardrail Factor * L(44b), Square Root of [(L(43) + L(44))^2 + L(44b)^2 + 2 * (\text{Correlation Factor}) * (L(43) + L(44)) * L(44b)]]}$	_____
(48) (C-2) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (139)	_____
(49) Net (C-2) - Post-Tax	Line (47) - Line (48)	=====
<u>Interest Rate Risk (C-3a)</u>		
(50) Total Interest Rate Risk - Pre-Tax	LR027 Interest Rate Risk Column (3) Line (36)	_____
(51) (C-3a) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (140)	_____
(52) Net (C-3a) - Post-Tax	Line (50) - Line (51)	=====
<u>Health Credit Risk (C-3b)</u>		
(53) Total Health Credit Risk - Pre-Tax	LR028 Health Credit Risk Column (2) Line (7)	_____
(54) (C-3b) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (141)	_____
(55) Net (C-3b) - Post-Tax	Line (53) - Line (54)	=====
<u>Market Risk (C-3c)</u>		
(56) Total Market Risk - Pre-Tax	LR027 Interest Rate Risk Column (3) Line (37)	_____
(57) (C-3c) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (142)	_____
(58) Net (C-3c) - Post-Tax	Line (56) - Line (57)	=====

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

LR031

CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL (CONTINUED)

Confidential when Completed

NAIC Company Code ⁽¹⁾
RBC
Requirement

Company Name	Source	
<u>Business Risk (C-4a)</u>		
(59) Premium Component	LR029 Business Risk Column (2) Lines (12) + (24) + (36)	_____
(60) Liability Component	LR029 Business Risk Column (2) Line (39)	_____
(61) Subtotal Business Risk (C-4a) - Pre-Tax	Lines (59) + (60)	_____
(62) (C-4a) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (143)	_____
(63) Net (C-4a) - Post-Tax	Line (61) - Line (62)	=====
<u>Business Risk (C-4b)</u>		
(64) Health Administrative Expense Component of Business Risk (C-4b) - Pre-Tax	LR029 Business Risk Column (2) Line (57)	_____
(65) (C-4b) Tax Effect	LR030 Calculation of Tax Effect for Life and Fraternal Risk-Based Capital Column (2) Line (144)	_____
(66) Net (C-4b) - Post-Tax	Line (64) - Line (65)	=====
<u>Total Risk-Based Capital After Covariance Before Basic Operational Risk</u>		
(67) $C-0 + C-4a + \text{Square Root of } [(C-1a + C-3a)^2 + (C-1c + C-3c)^2 + (C-2)^2 + (C-3b)^2 + (C-4b)^2]$	REPORT AMOUNT ON PARENT COMPANY'S RBC IF APPLICABLE $L(11)+L(63) + \text{Square Root of } [(L(42) + L(52))^2 + (L(20) + L(58))^2 + L(49)^2 + L(55)^2 + L(66)^2]$	_____
(68) Gross Basic Operational Risk	$0.03 \times L(67)$	_____
(69) C-4a of U.S. Life Insurance Subsidiaries	Company Records	_____
(70) Net Basic Operational Risk	Line (68) - (Line (63) + Line (69)) (Not less than zero)	_____
(71) Primary Security Shortfall Calculated in Accordance With Actuarial Guideline XLVIII Multiplied by 2	LR036 XXX/AXXX Reinsurance Primary Security Shortfall by Cession Column (7) Line (9999999) Multiplied by 2	_____
(72) Total Risk-Based Capital After Covariance (Including Basic Operational Risk and Primary Security Shortfall multiplied by 2)	Line (67) + Line (70) + Line (71)	=====
<u>Authorized Control Level Risk-Based Capital (After Covariance Adjustment and Shortfall)</u>		
(73) Total Risk-Based Capital After Covariance Times Fifty Percent	Line (72) x 0.50	_____
<u>Tax Sensitivity Test</u>		
(74) Tax Sensitivity Test: Total Risk-Based Capital After Covariance	$L(9)+L(61) + \text{Square Root of } [(L(40) + L(50))^2 + (L(18) + L(56))^2 + L(47)^2 + L(53)^2 + L(64)^2]$	_____
(75) Tax Sensitivity Test: Authorized Control Level Risk-Based Capital	Line (74) x 0.50	_____

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

LR031

LIFE INSURANCE - OPTION 1 - DRAFT
 LR025

Basis of Factors

The factors chosen developed represent surplus needed to provide for excess claims over life insurance mortality risk, which is defined as adverse variance in life insurance deaths (i.e., insureds dying sooner than expected, both from random fluctuations and from inaccurate pricing for future levels) over the remaining lifetime of claims. For a large number block of trials, each insured either lives or dies based on a "roll of the dice" business while appropriately reflecting the probability of death from both normal and excess claims pricing flexibility to adjust current mortality rates for emerging experience. The present value of mortality risks included in the claims generated by this process, less expected claims, will be the amount of surplus needed under that trial development of the factors were volatility, level, trend, and catastrophe. The factors chosen under were developed by stochastically simulating the formula produce a level of surplus at least as much run-off of in force life insurance blocks typical of U.S. life insurers.

The capital need, expressed as needed in 95 percent of a dollar amount, is determined as the trials-greatest present value of accumulated deficiencies at the 95th percentile of the stochastic distribution of scenarios over the remaining lifetime of a block of business while appropriately reflecting the pricing flexibility to adjust current mortality rates. Statutory losses are defined as the after-tax quantification of gross death benefits minus reserves released minus mortality margin present in reserves. The after-tax statutory losses are discounted to the present by using 20-year averages for U.S. swap rates. By selecting the largest present value accumulated loss across all projection years, the solved for capital ensures non-negative capital at all projection periods. Earlier period losses are not allowed to be offset by later period gains to reduce capital. The 95th percentile is the commonly accepted statistical safety level used for Life RBC C-2 mortality risk to identify weakly capitalized companies. The after-tax capital needs are translated to a factor expressed as a percentage of the net amount at risk (NAR). The pre-tax factor is determined by taking the after-tax factor divided by (1 minus the tax rate).

The model was developed for portfolios of 10,000, 100,000 and one million lives, and it was found that the surplus needs decreased with larger portfolios, consistent with the law of large numbers.

Net amount at risk was chosen as a base because expected claims are difficult to calculate on a consistent basis from company to company. The factors are differentiated between individual & industrial life and group & credit life, and by in force block size. Within individual & industrial life, the factors are differentiated into categories for universal life with secondary guarantees (ULSG), term life, and all other life. Within group & credit life, the factors are differentiated into categories by the remaining length of the premium rate term by group contract. There are distinct factors for contracts that have remaining premium rate terms 36 months and under and for contracts that have remaining premium rate terms over 36 months. The Federal Employees' Group Life Insurance (FEGLI) and Servicemembers' Group Life Insurance (SGLI) receive a separate factor applied to the amounts in force.

Specific Instructions for Application of the Formula

Lines 3, 42, 5 and 9-21-41 are not applicable to Fraternal Benefit Societies.

Annual statement reference is for the total net amount at risk for the category (e.g., Individual & Industrial is one category). The net amount at risk is then further broken down by size as in a tax table to reflect the decrease in risk for larger blocks of life insurance. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to amounts in force is completed automatically. The calculation is as follows:

The NAR is derived for each of the factor categories using annual statement sources and company records. In Force and Reserves amounts are net of reinsurance throughout.

Line (11) ULSG In Force is derived from company records. The amount classified as ULSG needs to be consistent with the Exhibit of Life Insurance and the same block of policies as the ULSG reserves recorded in Line (12) which is sourced to the Analysis of Increase in Reserves During the Year – Individual Life Insurance Column 7 Line 15. The table below illustrates the RBC requirement calculation embedded in Line (13) for ULSG.

Line	(1) Statement Value	Factor	(2) RBC Requirement
	Individual & Industrial ULSG		

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(813)

First 500 Million	_____	X 0.0022300390	_____
		=	
Next 424,500 Million	_____	X 0.0014600165	_____
		=	
Next 20,000 Million	=====	X 0.00116=	=====
Over 25,000 Million	_____	X 0.0008700110	_____
		=	
Total Individual & Industrial ULSG Net Amount at Risk	=====		=====

Line (20) Group & Credit

	Statement Value	Factor	RBC Requirement
First 500 Million	_____	X 0.00175 =	_____
Next 4,500 Million	_____	X 0.00116 =	_____
Next 20,000 Million	_____	X 0.00087 =	_____
Over 25,000 Million	_____	X 0.00078 =	_____

Line (14) Term Life In Force is derived from company records. The amount classified as Term Life needs to be consistent with the Exhibit of Life Insurance and the same block of policies as the Term reserves recorded in Line (15) which is sourced to the Analysis of Increase in Reserves During the Year – Individual Life Insurance Column 4 Line 15. The table below illustrates the RBC requirement calculation embedded in Line (16) for Term Life.

Line (16) Term Life

	(1) Statement Value	Factor	(2) RBC Requirement
First 500 Million	_____	X 0.00270 =	_____
Next 24,500 Million	_____	X 0.00110 =	_____
Over 25,000 Million	_____	X 0.00075 =	_____
Total Group & Credit Term Life Net Amount at Risk (less FEGLI & SGLI in force)	=====		=====

Lines (17) and (18) All Other Life In Force and Reserves are derived from the aggregate amounts derived in lines (1) to (10) minus the ULSG amounts in lines (11) to (12) and term life amounts in lines (14) to (15). In force business not classified as ULSG or term life is assigned to all other life. The table below illustrates the RBC requirement calculation embedded in Line (19) for All Other Life.

Line (19) All Other Life

	(1) Statement Value	Factor	(2) RBC Requirement
First 500 Million	_____	X 0.00190 =	_____
Next 24,500 Million	_____	X 0.00075 =	_____
Over 25,000 Million	_____	X 0.00050 =	_____
Total All Other Life Net Amount at Risk	=====		=====

Lines (35) and (36) Group & Credit Life In Force and Reserves with Remaining Rate Terms 36 Months and Under are derived from company records. This category includes group contracts where the premium terms have 36 months or fewer until expiration or renewal. The in force amount classified in this category needs to be consistent with the Exhibit of Life Insurance. The reserves amount classified in this category needs to be consistent with Exhibit 5 used for Lines (28) and (29), Separate Accounts Exhibit used for Line (30), and Schedule S used for Lines (31) and (32). Federal Employees' Group Life Insurance (FEGLI) and Servicemembers' Group Life Insurance (SGLI) contracts are

excluded. The table below illustrates the RBC requirement calculation embedded in Line (37) for Group & Credit Life Net Amount at Risk with Remaining Rate Terms 36 Months and Under.

Line (37)	Group & Credit Life with Remaining Rate Terms 36 Months and Under	(1) Statement Value	Factor	(2) RBC Requirement
	First 500 Million	_____	X 0.00130 =	_____
	Next 24,500 Million	_____	X 0.00045 =	_____
	Over 25,000 Million	_____	X 0.00030 =	_____
	Total Group & Credit Life Net Amount at Risk with Remaining Rate Terms 36 Months and Under	_____		_____

Lines (38) and (39) Group & Credit Life In Force and Reserves with Remaining Rate Terms Over 36 Months are derived from the aggregate amounts derived in lines (21) to (34) minus the Group & Credit Life In Force and Reserves with Remaining Rate Terms 36 Months and Under in lines (35) and (36). FEGLI and SGLI contracts are excluded. The table below illustrates the RBC requirement calculation embedded in Line (40) for Group & Credit Life Net Amount at Risk with Remaining Rate Terms Over 36 Months.

Line (40)	Group & Credit Life with Remaining Rate Terms Over 36 Months	(1) Statement Value	Factor	(2) RBC Requirement
	First 500 Million	_____	X 0.00180 =	_____
	Next 24,500 Million	_____	X 0.00070 =	_____
	Over 25,000 Million	_____	X 0.00045 =	_____
	Total Group & Credit Life Net Amount at Risk with Remaining Rate Terms Over 36 Months	_____		_____

Line (41) FEGLI/SGLI In Force amounts are retrieved from the Exhibit of Life Insurance. The capital factor assigned is the same as the largest size band for group & credit life contracts with remaining rate terms 36 months and under

Line (41)	FEGLI/SGLI In Force	(1) Statement Value	Factor	(2) RBC Requirement
		_____	X 0.00030 =	_____

All amounts should be entered as required. The risk-based capital software will calculate the RBC requirement for individual and industrial and for group and credit.

LIFE INSURANCE - OPTION 2 - DRAFT
LR025

Basis of Factors

The factors chosen developed represent surplus needed to provide for excess claims over life insurance mortality risk, which is defined as adverse variance in life insurance deaths (i.e., insureds dying sooner than expected, both from random fluctuations and from inaccurate pricing for future levels) over the remaining lifetime of claims. For a large number block of trials, each insured either lives or dies based on a "roll of the dice" business while appropriately reflecting the probability of death from both normal and excess claims pricing flexibility to adjust current mortality rates for emerging experience. The present value of mortality risks included in the claims generated by this process, less expected claims, will be the amount of surplus needed under that trial development of the factors were volatility, level, trend, and catastrophe. The factors chosen under were developed by stochastically simulating the formula produce a level of surplus at least as much run-off of in force life insurance blocks typical of U.S. life insurers.

The capital need, expressed as needed in 95 percent of a dollar amount, is determined as the trials-greatest present value of accumulated deficiencies at the 95th percentile of the stochastic distribution of scenarios over the remaining lifetime of a block of business while appropriately reflecting the pricing flexibility to adjust current mortality rates. Statutory losses are defined as the after-tax quantification of gross death benefits minus reserves released minus mortality margin present in reserves. The after-tax statutory losses are discounted to the present by using 20-year averages for U.S. swap rates. By selecting the largest present value accumulated loss across all projection years, the solved for capital ensures non-negative capital at all projection periods. Earlier period losses are not allowed to be offset by later period gains to reduce capital. The 95th percentile is the commonly accepted statistical safety level used for Life RBC C-2 mortality risk to identify weakly capitalized companies. The after-tax capital needs are translated to a factor expressed as a percentage of the net amount at risk (NAR). The pre-tax factor is determined by taking the after-tax factor divided by (1 minus the tax rate).

The model was developed for portfolios of 10,000, 100,000 and one million lives, and it was found that the surplus needs decreased with larger portfolios, consistent with the law of large numbers.

Net amount at risk was chosen as a base because expected claims are difficult to calculate on a consistent basis from company to company. The factors are differentiated between individual & industrial life and group & credit life, and by in force block size. Within individual & industrial life, the factors are differentiated into categories by contract type depending on the degree of pricing flexibility. Within group & credit life, the factors are differentiated into categories by the remaining length of the premium rate term by group contract. There are distinct factors for contracts that have remaining premium rate terms 36 months and under and for contracts that have remaining premium rate terms over 36 months. The Federal Employees' Group Life Insurance (FEGLI) and Servicemembers' Group Life Insurance (SGLI) receive a separate factor applied to the amounts in force.

Specific Instructions for Application of the Formula

Lines 3, 42, 5 and 9-21-41 are not applicable to Fraternal Benefit Societies.

Annual statement reference is for the total net amount at risk for the category (e.g., Individual & Industrial is one category). The net amount at risk is then further broken down by size as in a tax table to reflect the decrease in risk for larger blocks of life insurance. This breakdown will not appear on the RBC filing software or on the printed copy, as the application of factors to amounts in force is completed automatically. The calculation is as follows:

The NAR is derived for each of the factor categories using annual statement sources and company records. In Force and Reserves amounts are net of reinsurance throughout. The In Force amounts throughout derived from company records need to be consistent with the Exhibit of Life Insurance. The Reserves amounts throughout derived from company records need to be consistent with Exhibit 5, Separate Accounts Exhibit, and Schedule S.

Pricing Flexibility for Individual Life Insurance is defined as the ability to materially adjust rates on in force contracts through changing premiums and/or non-guaranteed elements as of the valuation date and within the next 5 policy years. A material rate adjustment is defined as the ability to recover, on a present value basis, the difference in mortality provided for in the factors below for contracts with and without pricing flexibility.

Lines (11) and (12) Life Policies with Pricing Flexibility In Force and Reserves are derived from company records. Examples of products intended for this category include, but aren't limited to, participating whole life insurance, universal life insurance without secondary guarantees, and yearly renewable term insurance where scheduled premiums may be changed. The table below illustrates the RBC requirement calculation embedded in Line (13) for Life Policies with Pricing Flexibility.

	(1)		(2)
Line (813)	Individual & Industrial Life Policies with Pricing Flexibility	Statement Value	RBC Requirement
	First 500 Million	X 0.0022300190	
	Next 424,500 Million	X 0.0014600075	
	Next 20,000 Million	X 0.00116	
	Over 25,000 Million	X 0.0008700050	
	Total Individual & Industrial Life Policies with Pricing Flexibility Net Amount at Risk		

Line (20)	Group & Credit	Statement Value	Factor	RBC Requirement
	First 500 Million		X 0.00175 =	
	Next 4,500 Million		X 0.00116 =	
	Next 20,000 Million		X 0.00087 =	
	Over 25,000 Million		X 0.00078 =	

Lines (14) and (15) Term Life Policies without Pricing Flexibility In Force and Reserves are derived from company records. Examples of products intended for this category include, but aren't limited to, level term insurance with guaranteed level premiums and yearly renewable term insurance where scheduled premiums may not be changed. The table below illustrates the RBC requirement calculation embedded in Line (16) for Term Life Policies without Pricing Flexibility.

	(1)		(2)
Line (16)	Term Life Policies without Pricing Flexibility	Statement Value	RBC Requirement
	First 500 Million	X 0.00270 =	
	Next 24,500 Million	X 0.00110 =	
	Over 25,000 Million	X 0.00075 =	
	Total Group & Credit Term Life Policies without Pricing Flexibility Net Amount at Risk (less FEGLI & SGLI in force)		

Lines (17) and (18) Permanent Life Policies without Pricing Flexibility In Force and Reserves are derived from the aggregate amounts derived in lines (1) to (10) minus the amounts recorded in the other individual life categories. Examples of products intended for this category include, but aren't limited to, universal life with secondary guarantees and non-participating whole life insurance. Policies that aren't recorded in the other individual life categories default to this category which has the highest factors. The table below illustrates the RBC requirement calculation embedded in Line (19) for Permanent Life Policies without Pricing Flexibility.

	(1)		(2)
Line (19)	Permanent Life Policies without Pricing Flexibility	Statement Value	RBC Requirement
	First 500 Million	X 0.00390 =	

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<u>Next 24,500 Million</u>	_____	X 0.00165 =	_____
<u>Over 25,000 Million</u>	_____	X 0.00110 =	_____
<u>Total Permanent Life Policies without Pricing Flexibility</u>	_____		_____
<u>Net Amount at Risk</u>			

Lines (35) and (36) Group & Credit Life In Force and Reserves with Remaining Rate Terms 36 Months and Under are derived from company records. This category includes group contracts where the premium terms have 36 months or fewer until expiration or renewal. The in force amount classified in this category needs to be consistent with the Exhibit of Life Insurance. The reserves amount classified in this category needs to be consistent with Exhibit 5 used for Lines (28) and (29), Separate Accounts Exhibit used for Line (30), and Schedule S used for Lines (31) and (32). Federal Employees' Group Life Insurance (FEGLI) and Servicemembers' Group Life Insurance (SGLI) contracts are excluded. The table below illustrates the RBC requirement calculation embedded in Line (37) for Group & Credit Life Net Amount at Risk with Remaining Rate Terms 36 Months and Under.

	(1)		(2)
<u>Line (37) Group & Credit Life with Remaining Rate Terms 36 Months and Under</u>	<u>Statement Value</u>	<u>Factor</u>	<u>RBC Requirement</u>
<u>First 500 Million</u>	_____	X 0.00130 =	_____
<u>Next 24,500 Million</u>	_____	X 0.00045 =	_____
<u>Over 25,000 Million</u>	_____	X 0.00030 =	_____
<u>Total Group & Credit Life Net Amount at Risk with Remaining Rate Terms 36 Months and Under</u>	_____		_____

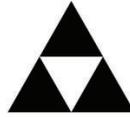
Lines (38) and (39) Group & Credit Life In Force and Reserves with Remaining Rate Terms Over 36 Months are derived from the aggregate amounts derived in lines (21) to (34) minus the Group & Credit Life In Force and Reserves with Remaining Rate Terms 36 Months and Under in lines (35) and (36). FEGLI and SGLI contracts are excluded. The table below illustrates the RBC requirement calculation embedded in Line (40) for Group & Credit Life Net Amount at Risk with Remaining Rate Terms Over 36 Months.

	(1)		(2)
<u>Line (40) Group & Credit Life with Remaining Rate Terms Over 36 Months</u>	<u>Statement Value</u>	<u>Factor</u>	<u>RBC Requirement</u>
<u>First 500 Million</u>	_____	X 0.00180 =	_____
<u>Next 24,500 Million</u>	_____	X 0.00070 =	_____
<u>Over 25,000 Million</u>	_____	X 0.00045 =	_____
<u>Total Group & Credit Life Net Amount at Risk with Remaining Rate Terms Over 36 Months</u>	_____		_____

Line (41) FEGLI/SGLI In Force amounts are retrieved from the Exhibit of Life Insurance. The capital factor assigned is the same as the largest size band for group & credit life contracts with remaining rate terms 36 months and under.

	(1)		(2)
<u>Line (41) FEGLI/SGLI In Force</u>	<u>Statement Value</u>	<u>Factor</u>	<u>RBC Requirement</u>
	_____	X 0.00030 =	_____

All amounts should be entered as required. The risk-based capital software will calculate the RBC requirement for individual and industrial and for group and credit.



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December 21, 2021

Ms. Seong-Min Eom,
Chair, Longevity Risk (A/E) Subgroup
National Association of Insurance Commissioners

Via email: Dave Fleming (dfleming@naic.org)
Re: Longevity Risk Subgroup working agenda item on Longevity Reinsurance

Dear Seong-Min,

The American Academy of Actuaries¹ (Academy) Annuity Reserves and Capital Work Group (ARCWG) recently shared with the Valuation Manual (VM)-22 (A) Subgroup an initial draft of NAIC Valuation Manual Section II and recommended VM-22 requirements associated with the ARCWG proposal on a principle-based reserving (PBR) framework for fixed annuities.² The Academy's C-2 Longevity Risk Work Group is providing its observations on implications this reserve proposal may have on the expansion of the scope for C-2 Longevity capital to include longevity reinsurance contracts. To summarize:

1. Longevity reinsurance is explicitly included in the scope of the ARCWG VM-22 draft;
2. Reserve aggregation, as included in the VM-22 draft, could facilitate a simple approach to including longevity reinsurance in C-2 using the same factors that currently apply to other fixed annuities; and
3. The C-2 capital approach for longevity reinsurance business written prior to the VM-22 effective date will require further study and recommendation by the Longevity Risk (E/A) Subgroup.

As you may recall, longevity reinsurance contracts were excluded from the scope of the year-end 2021 implementation of C-2 Longevity within Life Risk-Based Capital (LRBC) given the need for further discussion on appropriate capital methodology given product differences compared to payout annuities. Longevity reinsurance is explicitly included in the scope of ARCWG's VM-22 draft. Progress on these reserve requirements may provide an opportunity to concurrently advance the discussion on C-2 capital.

¹ The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

² https://www.actuary.org/sites/default/files/2021-07/ARCWG_VM_22_Draft_Proposal_July_2021_Combined.pdf

As described in the VM-22 product definition, the reinsurer assumes the longevity risk associated with the periodic payments of the reinsured annuity contract(s). In general, the reinsurer is responsible for paying the periodic annuity payments based on actual longevity experience of the underlying population in exchange for a fixed schedule of periodic payments over the expected lifetime of the underlying annuitants. Such contracts may include net settlement provisions such that only one party makes a payment in any particular period.

The field study, which was conducted in 2018 and used to calibrate the current C-2 Longevity factors, did not include results for longevity reinsurance since there were not enough responses for companies reporting results for the product to allow for aggregated data. As a result, the Academy’s C-2 Longevity Risk Work Group is not currently able to calibrate a capital factor based on results specific to the reinsurance product. Because this reinsurance transfers the longevity risk associated with immediate and/or deferred payout annuity products that are already in scope for C-2 Longevity, it seems reasonable to postulate that the longevity risk of a longevity reinsurance contract would be consistent with the longevity risk of the underlying annuity contract prior to reinsurance.

The periodic premium payments drive important differences in reserves compared to single premium payout annuity products. On a stand-alone product basis, the VM-22 stochastic reserve for longevity reinsurance could be quite low because the present value of annuity payments under prudent estimate mortality may not materially exceed the present value of premiums. If longevity reinsurance is aggregated with other products in calculating the stochastic reserve as permitted under the VM-22 draft, the inclusion of longevity reinsurance in the aggregation could in some cases act to reduce the aggregate reserve if the longevity reinsurance premiums exceed the annuity benefits under the prudent estimate reserve assumptions. The Academy’s C-2 Longevity Risk Work Group believes this is an appropriate though potentially surprising result that should be clearly understood. Listed below is a hypothetical illustration of reserve results under aggregation.

	Present Value of Future Premium	Present Value of Future Benefits	Reserve
Immediate Annuities	N/A	1,500	
Longevity Reinsurance Assumed	1,010	1,000	
	1,010	2,500	1,490

In this hypothetical illustration, the future longevity reinsurance premiums exceed future benefit payments, so the aggregate reserve—1,490—is less than the reserve that would have been calculated for the immediate annuities on a stand-alone basis—1,500. (The subsequent allocation of the 1,490 aggregate reserve to the contract level is not shown in this illustration.)

A simple approach to including longevity reinsurance within the scope of C-2 Longevity capital is to apply the existing capital factors to the present value of benefits for longevity reinsurance in addition to the existing reserve basis for products in scope. The ARCWG VM-22 draft as written would reflect the entire longevity reinsurance gross premium in the aggregated reserve calculation so no adjustment for premiums would be required in capital. Continuing the hypothetical illustration above, this would result in a total company basis for C-2 Longevity of 2,490:

Reserve for Products In Scope for Longevity C-2	1,490
Present Value of Benefits for Longevity Reinsurance	1,000
Total Basis for C-2 Longevity	2,490

The ARCWG VM-22 draft is written to apply prospectively to contracts issued after Jan. 1, 2024, so it does not address reserving for longevity reinsurance contracts issued before this date. The capital approach above may need to be reconsidered depending on the reserving method for these existing contracts. This retrospective issue may only apply to a small number of companies based on the low response rate for the product in the 2018 field study but will also need to be considered by the Longevity Risk Subgroup as part of the expansion of scope for C-2 Longevity.

The Academy’s C-2 Longevity Risk Work Group supports the proposal of the ARCWG, which includes an aggregate calculation of reserves. However, if aggregation of longevity reinsurance with other jointly managed annuity business is ultimately not included in the final VM-22 language (or when considering the retrospective application to contracts issued prior to Jan. 1, 2024, which may use different reserve methods), then it seems likely that a portion of the gross premium under the longevity reinsurance contracts could be excluded from the reserve calculation in order to ensure a reserve greater than zero. In that situation there would be two broad paths forward for C-2 capital:

- A) **Continue to use present value of benefits as the basis for longevity reinsurance along with the same C-2 capital factor.** This approach could result in a portion of the gross reinsurance premium being excluded from both the reserve and capital calculations. This could be deemed acceptable within the context of RBC as a simple factor-based calculation for regulatory capital carried out independent of reserves. However, it would be inconsistent with a Total Asset Requirement (TAR) view of reserves and capital together achieving a consistent outcome (such as 95th percentile) across products and could result in the TAR for longevity reinsurance being overstated by the amount of any gross premium that is excluded.
- B) **Consider an adjusted capital factor specific to longevity reinsurance that takes into account premium amounts not included in reserves.** It might not be possible to calibrate a single factor that would be appropriate to apply to all longevity reinsurance contracts written at different times with different premium levels and with different emerging experience. It could be possible to include a calculation of a more appropriate adjusted factor within the C-2 Longevity calculation at a company level; however, this would be more complicated than the factor times reserve approach currently used for C-2 Longevity.

Life insurance is an example of a product that also includes recurring premium payments. Under a net premium reserving methodology, a portion of the gross premium is excluded from reserves, yet no adjustment for this is required in capital. There are several key differences for longevity reinsurance that could merit consideration of the gross premium in reserves and/or capital:

- Future premium payments for longevity reinsurance are a contractual obligation that in some cases may be supported by collateral posted as security against default. Future life

insurance premiums by contrast are voluntary with a contract holder right to lapse at any time.

- In a mortality risk event for life insurance (premature death), premium payments for a contract cease and are not received by the insurer. By contrast, under a longevity reinsurance risk event (extended longevity), premium payments for a contract continue in their entirety and are netted in full against future benefit obligations.

The impact on C-2 Longevity for companies ceding risk through longevity reinsurance should also be addressed. This could be achieved by clarifying the existing adjustment for modified coinsurance (Modco) reserves ceded to also include reserves for which longevity risk is ceded via longevity reinsurance contracts.

It may not be appropriate to exclude longevity risk transferred by reinsurance from scope of C-2 Longevity while including in scope payout annuity products having the same longevity risk. The Academy's C-2 Longevity Risk Work Group looks forward to supporting the Longevity Risk Subgroup in completing the implementation of C-2 Longevity to include longevity reinsurance.

Should you have any questions or comments regarding this letter, please contact Khloe Greenwood, life policy analyst at the Academy (greenwood@actuary.org).

Sincerely,

Paul Navratil, MAAA, FSA
Chairperson, C-2 Longevity Risk Work Group
American Academy of Actuaries

Draft: 3/16/22

Life Risk-Based Capital (E) Working Group
Virtual Meeting
December 16, 2021

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Dec. 16, 2021. The following Working Group members participated: Philip Barlow, Chair (DC); Chuck Hale (AL); Thomas Reedy (CA); Wanchin Chou (CT); Sean Collins (FL); Mike Yanacheak (IA); Vincent Tsang (IL); Fred Andersen (MN); William Leung (MO); Derek Wallman (NE); Seong-min Eom (NJ); Bill Carmello (NY); Andrew Schallhorn (OK); Mike Boerner and Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Adopted the Guidance Document on Bond Factor Changes

Brian Bayerle (American Council of Life Insurers—ACLI) said the ACLI believes the document will be helpful to regulators and supports its adoption with the inclusion of the reference to other changes made for yearend 2021. Mr. Yanacheak made a motion, seconded by Mr. Leung, to adopt the Working Group's guidance document on bond factor changes (Attachment Four-C1). The motion passed unanimously.

2. Continued Discussion of the Report of the C2 Mortality Work Group of the Academy

Chris Trost (American Academy of Actuaries—Academy), chair of the Academy's C2 Mortality Work Group, highlighted the main changes that the Academy is recommending is to expand the number of categories in the current structure which applies a factor to the net amount at risk (NAR) which decreases as the NAR increases. The Academy believes a critical element in capturing the risk is the length of the exposure period where there is not the capacity to adjust the mortality charges and because of that, he said the Academy created three categories using VM-20 as a guide with term, universal life with secondary guarantees (ULSG) and all other. The all-other category maintains the same period that the original RBC work used which is looking at the mortality risk over a five-year period because beyond that time the risk could be covered through adjustments and mortality rates. Mr. Trost said the exposure period lasts much longer for term and ULSG and the Academy used averages of 10 years for term and 20 years for ULSG. He said the Academy also added a catastrophe terrorism component and a catastrophe unknown sustained risk component. He discussed other aspects that were changed and those that were not changed as shown on page six of the recommendation (Attachment Four-C2). Ryan Fleming (Academy) presented the updated C-2 factors, other aspects of the categorization and a comparison of the recommended factors versus the current factors along with the percentage change in those factors. He discussed the C-2 factors as an overall mortality increase along with the Academy's comparison against other capital regimes. He highlighted the Academy's sensitivity testing which helped in identifying that the length of the mortality rate exposure period is one of the most critical variables in determining capital factors. He summarized the Academy's recommendation and noted that the Academy does not believe that additional review of the adopted correlation factor with longevity is needed as the work on mortality was done consistently with the longevity work.

With respect to the Academy's pandemic modeling, Ms. Hemphill noted what appeared to be one-year events and asked whether having another component to account for multi-year events was considered. Mr. Trost said the Academy was capturing a multi-year event but modeling it occurring in one year. He also noted that the Academy looked at the actual impacts of unknown sustained risks, specifically with the opioid epidemic and AIDS, and those impacts were significantly less in the insured population than the general population, but the Academy did not reflect this in its recommendation. For those sustained type risks, he said the Academy also included the assumption that the worst experience was the same at all ages which adds another level of conservatism. Ms. Hemphill expressed concern with the factor decrease for the all-other category given how non-homogenous the products are in the ability to adjust and suggested the possibility of addressing this either through revising the factors presented or adding some regulatory review process. Mr. Carmello suggested having products without the ability to adjust default the categories with higher factors and not the all-other category. Mr. Barlow said another approach could be to set the factors for the all-other category to whatever is appropriate for the product involving the most risk.

Mr. Barlow said the Academy will be working with NAIC staff on the needed structural changes so they can be exposed for comment before the end of January.

Having no further business, the Life Risk-Based Capital (E) Working Group adjourned.

[MinutesGuide.docx](#)



NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

MEMORANDUM

TO: Financial Examiners and Other State Insurance Regulators

FROM: Philip Barlow, Chair of the Life Risk-Based Capital (E) Working Group

DATE: Dec. 16, 2021

RE: Interpretation of the 2021 Life Risk-Based Capital (RBC) Results in Light of the 2021 Bond Factor Changes

Purpose and Intended Audience for this Document

This document is intended to assist financial examiners and other state insurance regulators as they review the results of 2021 RBC calculations for life insurers in light of the 2021 bond factor changes. There were also changes related to longevity risk, real estate and reinsurance that state insurance regulators may want to consider but this document is specifically addressing the bond factor changes as they have the most potential to impact the action level, including through the trend test.

More detailed information about this topic is contained in the minutes of the Life Risk-Based Capital (E) Working Group, and related documents are included on the websites for both the Working Group and the Capital Adequacy (E) Task Force. The changes to the Life RBC formula factors for bonds were adopted by the Working Group on June 11 and by the Task Force on June 30.

Executive Summary

The work to update the RBC charges applied to bonds has been ongoing for several years and reflects the efforts of many participants. The Working Group appreciates the considerable work of the American Academy of Actuaries (Academy) on this project, as well as the work done by Moody's Analytics on behalf of the American Council of Life Insurers (ACLI). The Working Group discussed the proposals presented during numerous conference calls over the past year. The Working Group also reviewed estimates of the impact the proposals would have had on the RBC results for life insurers' year-end 2020 filings. The Working Group concluded that both proposals presented a sound and appropriate update to the factors applied to bonds, and it ultimately adopted the proposal presented by Moody's.

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NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

How should the effects of the change in bond factors be factored into the interpretation of RBC results?

The estimated impact of the change in bond factors the Working Group reviewed on individual companies and the life insurance industry in aggregate indicated less than a 2% increase in the authorized control level (ACL) RBC on an aggregate basis. However, a small number of companies experienced a much larger impact when the 2019 results were recalculated with the new factors. The Life RBC Trend Test (LR035) will be affected by the change in bond factors and may be an area where this change is most evident. The Trend Test calculates a margin, which is the excess of total adjusted capital (TAC) over ACL RBC, for each of the current year, prior year, and third prior year. To the extent that the current year margin is lower than the prior year or third prior year margin, regulatory action may be indicated.

For the 2021 Trend Test, the margin for 2021 is compared to the margins for 2020 and 2018. As noted, a company's ACL RBC is expected to be increased for 2021 compared to prior years. The changes to ACL RBC due to the change in bond factors may cause some companies to trigger the Trend Test for 2021, solely because of the change in bond factors.

If state insurance regulators find that a life insurer has triggered the Trend Test, triggers an Action Level for 2021, or has a significant decline in its RBC ratio from 2020 to 2021, they could have additional discussions with the company and request additional calculations. It is likely that companies would have done some analysis of significant changes in ACL RBC, and that analysis could be shared with state insurance regulators.

Academy C-2 Mortality Work Group Recommendation

Chris Trost, MAAA, FSA
Chairperson C-2 Mortality Work Group

Ryan Fleming, MAAA, FSA
Vice Chair C-2 Mortality Work Group
American Academy of Actuaries



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National Association of Insurance Commissioners (NAIC) Life Risk-Based Capital (E) Working Group (LRBCWG)—November 9, 2021

Agenda

- Review Life RBC C-2 mortality overall approach and current risk-based capital (RBC) factors
- Present recommendation on updated C-2 factors
 - Structural changes to factor categories
 - Updated factors under the recommended structure
- Appendix:
 - Methodology, assumption, and risk distribution comparisons
 - Validation, peer review, limitations

Life RBC C-2 Mortality Overall Approach (1 of 2)

- Mortality risk is defined as adverse variance in life insurance deaths (i.e., insureds dying sooner than expected) over the remaining lifetime of a block of business while appropriately reflecting the pricing flexibility to adjust current mortality rates for emerging experience
- C-2 requirement covers mortality risk up to the 95th percentile covering adverse experience in excess of the amount covered in statutory reserves
- C-2 requirement includes mortality risks related to:
 - Volatility Risk—natural statistical deviations in experienced mortality
 - Level Risk—error in experience mortality assumption
 - Trend Risk—adverse mortality trend
 - Catastrophe Risks
 - Large temporary mortality increase from a severe event such as a pandemic or terrorism
 - Sustained mortality increase from an unknown risk

3



Life RBC C-2 Mortality Overall Approach (2 of 2)

- Evaluate mortality risks using stochastic simulation of projected statutory losses
- Discount after-tax cash flows (at 2.765% after-tax discount rate [3.5% pre-tax])
- Express capital requirement using a factor-based approach applied to Net Amount at Risk (NAR) and convert to pre-tax

4

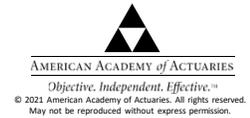


C-2 Life Mortality Risk-Based Capital

Per \$1000 of NAR	Current Pre-Tax RBC Factors	
	Individual & Industrial Life	Group & Credit Life
First \$500M	2.23	1.75
Next \$4.5B	1.46	1.16
Next \$20B	1.17	0.87
>\$25B	0.87	0.78

- The C-2 component of RBC represents 17-18% of total life industry risk-based capital

5



What Changed and Didn't Change from the Original Work*

What Changed

- Expanded categories to three product categories for individual life and two categories for remaining rate terms for group life
- Addition of a catastrophe terrorism component
- Addition of a catastrophe unknown sustained risk component, replaces severe adverse HIV scenarios in original work
- Lower experience mortality rates
- Lower discount rates (2.765% after-tax versus 6% in original work)
- Inforce assumptions reflecting current U.S. life insurers (demographic, product, lapses, etc.) and group specific assumptions
- Mortality risk assumptions calibrated to latest research and studies
- New model developed in Excel VBA; stochastic capabilities are much greater today than the early 1990's

What Didn't Change

- Statistical safety level – 95th percentile over 5 years for individual life products with inforce pricing flexibility
- Capital is determined for losses in excess of reserve mortality – 5% margin in statutory reserve mortality is consistent with one standard deviation

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* See the Appendix for a detailed comparison of the current and original work



Pre-Tax C-2 Factor Recommendation versus Current RBC

Risk Component	Large Inforce Size >\$25B NAR	Small Inforce Size ≤\$500M NAR	Key Updates
HIV Scenarios	↓ 45%	↓ 25%	- Removal of discrete HIV scenarios
Level	↓ 25%	↑ 5%	- Lower experience mortality rates, reducing risk with large credible blocks
Trend	↑ 20%	↑ 10%	- Greater range of mortality trends and differences by age/sex cohort - Risk increases with longer exposure periods
Catastrophe	↑ 10%	↑ 5%	- Similar pandemic severity - Addition of 9/11-type terrorism event (+1%) - Addition of unknown sustained risk event (+4.9%)
Capital Quantification Method	↑ 10%	↑ 5%	- Update to greatest present value of accumulated deficiencies (GPVAD) - Loss quantified as death benefits minus reserves released
Volatility	↑ 0%	↓ 5%	- Similar results as the original model
Length of Risk Exposure Period	↑ varies	↑ varies	- Factors increase based on the length of the current mortality rate risk exposure period - This is a critical variable for differentiating mortality risk

7

Lower Experience Mortality Rates

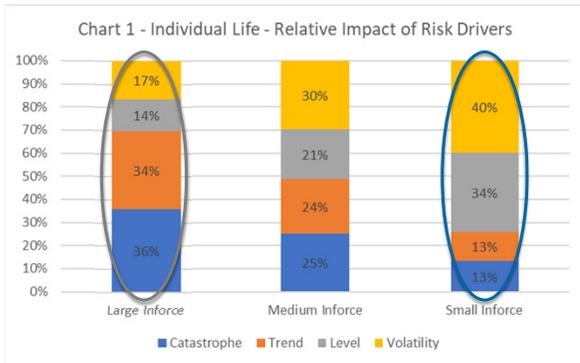
- The new model uses a distribution of rating classes using 2017 CSO tables
- 2017 Commissioners Standard Ordinary (CSO) mortality rates are significantly lower (50%-90%) than “88% of the 1975-80 Basic Table” used previously due to decades of mortality improvement in the U.S.
- An example at a typical age highlights the significant decrease

Comparison of Experience Mortality Rates, Example	
Rates Per 1,000	
Age 45, Male	
Table	Duration 1
88% of 1975-80 Basic Table	1.08
2017 CSO Unloaded Composite	0.48
<i>% Difference</i>	<i>-56%</i>

- Similar % decreases also occur at different gender, ages and underwriting classes
- Experience mortality manifests through the level risk component

8

C-2 Factor Attribution by Mortality Risk Individual Life - 5-Year Projection Period Example

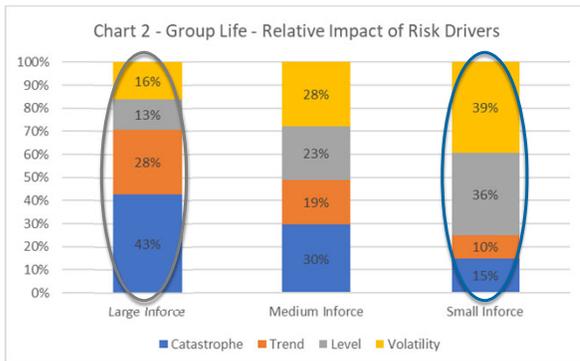


- Risks for large inforce blocks are spread proportionately between volatility/level, trend, and catastrophe
- Smaller inforce blocks are subject to higher volatility and level risks, which results in higher factors versus larger blocks

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C-2 Factor Attribution by Mortality Risk Group Life - 5-Year Projection Period Example



- Risks for large inforce blocks are spread proportionately between volatility/level, trend, and catastrophe
- Smaller inforce blocks are subject to higher volatility and level risks, which results in higher factors versus larger blocks

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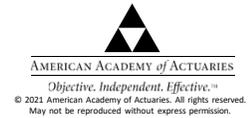


Expanded Categories to Three Products for Individual Life and Two Categories for Remaining Rate Terms for Group Life

Original 1990s Work

- 1993 factors used a 5-year risk exposure period for all individual life business and a 3-year risk exposure period for group life because it assumed that management actions would occur to reset current mortality rates to reflect emerging experience

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Expanded Categories to Three Products for Individual Life and Two Categories for Remaining Rate Terms for Group Life

Current Work

- For individual life, management action to reset current mortality rates may be limited or non-existent for products that offer longer term mortality rate guarantees (e.g., Universal Life with Secondary Guarantees (ULSG), Level Term)
- For group life, there are varying lengths of premium rate terms in the marketplace
- Factors aligned with the remaining risk exposure period of current mortality rates on an inforce block is appropriate. This risk differentiation can be accomplished by varying factors by product for individual life and by remaining premium term for group life.
- **The recommendation is to expand factors into additional categories to reflect the current mortality rate risk exposure period over the remaining lifetime of an inforce block of business**
 - **For individual life insurance, the recommendation is to differentiate into three product categories with definitions consistent with the annual statement – analysis of operations by line of business – individual life insurance and VM-20**
 - **For group life insurance, the recommendation is to differentiate into two categories by remaining length of the rate term based on company records by group contract**

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Two New Catastrophe Components

- A terrorism component was developed based on industry experience from the September 11, 2001 terrorist attacks
 - Component assumes a 5% annual probability of an extra 0.05 deaths per 1,000.
- As shared at the [September 11, 2020 LRBCWG meeting](#), a new catastrophe component was developed for a sustained mortality increase from an unknown risk, which serves as a replacement for the adverse HIV scenarios in the original work
 - Component is intended to cover unknown risks that could materialize in the insured population
 - The component assumes a 2.5% annual probability of a 5% sustained severe mortality increase
 - In follow up to a question at the 9/11/20 meeting, sensitivity testing was performed at a 5% annual probability, which has a very modest impact (within rounding to the nearest 0.05)
 - If the event occurs, it is sustained for the remainder of the projection period up to a maximum period of 10 years
 - Without this component the recommended factors would be about 0.1 lower
- **The recommendation is to include these two new catastrophe components.**

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Recommended Updated C-2 Factors

Per \$1000 of NAR	Pre-Tax Life RBC C-2 Factors				
	Individual & Industrial Life			Group & Credit Life	
	Universal Life with Secondary Guarantees	Term Life	All Other Life	Remaining Rate Terms Over 3 Years	Remaining Rate Terms 3 Years and Under
First \$500M (Small)	3.90	2.70	1.90	1.80	1.30
Next \$24.5B (Medium)	1.65	1.10	0.75	0.70	0.45
>\$25B (Large)	1.10	0.75	0.50	0.45	0.30

Individual Life: New categorization would be determined based on the categories specified in the annual statement analysis of operations by line of business and consistent with VM-20

- ULSG: factors are the highest due to the longest current mortality rate guarantees and are based on a 20-year risk exposure period for a mature inforce block
- Term Life: factors are based on a typical 10-year risk exposure period for a mature inforce block. The industry is concentrated in 10, 20 and 30-year level term.
- All Other Life: factors are based on a 5-year risk exposure period and assume inforce pricing may be adjusted following adverse mortality experience due to the presence of non-guaranteed elements. Examples are universal life products without secondary guarantees and participating whole life products.

Group Life: New categorization would be determined based on company records for the remaining premium rate terms by group contract

- One category is for remaining premium rate terms greater than 3 years and is represented by a 5-year exposure period
- The other category is remaining premium rate terms 3 years and under and is represented by a 3-year exposure period

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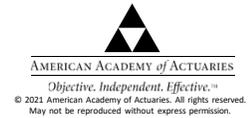
Recommendation on Updated C-2 Factors

Per \$1000 of NAR	Pre-Tax Life RBC C-2 Factors						
	Individual & Industrial Life				Group & Credit Life		
	Universal Life with Secondary Guarantee	Term Life	All Other Life	% of Individual Life Insurers*	Remaining Rate Terms Over 3 Years	Remaining Rate Terms 3 Years and Under	% of Group Life Insurers*
First \$500M (Small)	3.90	2.70	1.90	43%	1.80	1.30	54%
Next \$24.5B (Medium)	1.65	1.10	0.75	36%	0.70	0.45	33%
>\$25B (Large)	1.10	0.75	0.50	21%	0.45	0.30	12%

- Size bands were reviewed, and **the recommendation is to combine the current middle two categories (\$500M-\$5B and \$5B-\$25B) into one category (\$500M-\$25B)**
- The recommendation is to continue categorizing industrial life with individual life and credit life with group life**
- The recommendation is to continue with the 50% credit given for group premium stabilization reserves**

* As of 2019 annual statement reporting

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Recommendation vs Current RBC Individual & Industrial Life Impacts

Per \$1000 of NAR	Pre-Tax Life RBC C-2 Factors						
	Individual & Industrial Life				Change vs Current RBC		
	Current RBC	ULSG	Term	All Other	ULSG	Term	All Other
First \$500M	2.23	3.90	2.70	1.90	+75%	+21%	-15%
Next \$4.5B	1.46	1.65	1.10	0.75	+13%	-25%	-49%
Next \$20B	1.17				+41%	-6%	-36%
>\$25B	0.87	1.10	0.75	0.50	+26%	-14%	-43%

- Overall individual life industry impact would be a modest decrease with industry exposure by NAR concentrated in Term business amongst large insurers
- Factors increase for ULSG
- Factors decrease for products with inforce pricing flexibility (i.e., All Other category)
- Small ULSG and Term carriers would experience an increase on retained business; however, reinsurance is typically used to transfer/mitigate the mortality risk

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Recommendation vs Current RBC Group & Credit Life Impacts

Per \$1000 of NAR	Pre-Tax Life RBC C-2 Factors				
	Group & Credit Life			Change vs Current RBC	
	Current RBC	Remaining Rate Terms Over 3 Years	Remaining Rate Terms 3 Years and Under	Remaining Rate Terms Over 3 Years	Remaining Rate Terms 3 Years and Under
First \$500M	1.75	1.80	1.30	+3%	-26%
Next \$4.5B	1.16	0.70	0.45	-40%	-61%
Next \$20B	0.87			-20%	-48%
>\$25B	0.76	0.45	0.30	-41%	-61%

- Overall group industry impact would be a significant decrease in C-2 capital
- Factors decrease for all but one category: small size for longer rate terms which stays about the same
- Group life factors decreased due to the decades-long decline in experience mortality rates, and the exposure periods remain shorter term as compared to individual life
- C-2 is reduced by up to 50% of premium stabilization reserves

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C-2 Factors as an Overall Mortality Increase and Observations Versus Other Capital Regimes

Inforce Block Size	Overall Mortality Increase	
	Individual & Industrial Life – 5-year	Group & Credit Life – 5-year
Small	+22%	+31%
Medium	+10%	+14%
Large	+8%	+10%

- Table translates factors to an overall mortality percentage increase for a 5-year risk exposure period
- Percentage increases are similar for other risk exposure periods with cumulative magnitudes being greater for longer periods
 - For example, a 10% increase for 10 years is more severe than a 10% increase for 5 years
- Factors were reviewed against other capital regimes, including Canada, International Capital Standards (ICS), Solvency II and rating agency
 - Mortality risk drivers are consistent
 - Confirmed magnitudes are reasonable for the 95th percentile

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Sensitivity Testing: Other Attributes that Increase Mortality Risk

- The model was extensively sensitivity tested, and the following attributes increase mortality risk for companies concentrated in these areas
- The C-2 Mortality Work Group doesn't recommend differentiating RBC factors by these attributes; however, they may be useful to regulators when reviewing potentially weakly capitalized companies
- **Older Attained Ages:** capital needs per unit of net amount at risk increase for attained ages 65 and older due to increasing mortality rates
- **Substandard/Classified Underwriting Classes:** capital needs are higher due to higher mortality rates on unhealthier/riskier lives

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Summary of Recommendations

- The Academy C-2 Life Mortality Work Group recommends the factors shown on [Slide 14](#) which reflect
 1. Expanding factors into additional categories to reflect the current mortality rate risk exposure period over the remaining lifetime of an inforce block of business
 - For individual life insurance, the recommendation is to differentiate into three product categories with definitions consistent with the annual statement – analysis of operations by line of business – individual life insurance and VM-20
 - For group life insurance, the recommendation is to differentiate into two categories by the remaining length of the premium term based on company records by group contract
 2. Including the two new catastrophe components for 1) terrorism (expressed as a 5% annual probability of an extra 0.05 deaths per 1,000) and 2) the risk of a sustained mortality increase from an unknown event (expressed as a 2.5% annual probability of a 5% sustained mortality increase)
 3. Combining the current middle two size categories into one category
 4. Continue categorizing industrial life with individual life and credit life with group life
 5. Continue with the 50% credit given for group life premium stabilization reserves
- The work group opines that additional review of the adopted correlation factor with longevity C-2 is not necessary as the Life C-2 modeling was completed consistently with longevity

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Proposed Timeline

- A proposed timeline for a year-end 2022 implementation
 - By end of Q4 2021: expose recommended final factors
 - By end of Q1 2022: structural changes are adopted
 - By end of Q2 2022: updated factors are adopted
 - Year-end 2022: factors are implemented for year-end 2022 annual statements

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Questions?

Additional Questions, contact:

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Chris Trost, Chairperson C-2 Mortality Work Group

Ryan Fleming, Vice Chair C-2 Mortality Work Group



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Appendix: Method and Assumption Comparison

Item	Original Work	Recommendation
General Method	Monte Carlo Model – Present Value (PV) of Death Benefits	Monte Carlo Model – PV of Statutory Losses • Loss defined as death benefits minus reserves released
Capital Quantification	PV[95 th] – 105%*PV[Expected] • 5% margin/load assumed in reserve mortality	GPVAD[95 th] • Greatest present value of accumulated deficiencies (GPVAD) • 5% margin/load assumed in reserve mortality
Length of Exposure Period	5 years (3 years for Group) • Assumed exposure past 5 years could be offset through management actions (raise premium, adjust non-guaranteed elements, etc.)	5, 10, and 20 years for Individual Life 3 and 5 years for Group Life
Discount rate	6% after-tax	2.765% after-tax (3.5% pre-tax)
Experience Mortality	88% of 1975-1980 Male Basic Table • 15Y Select & Ultimate Structure • Male/Female not explicitly modelled • Underwriting adjustments applied based on generation	2017 Unloaded Commissioners' Standard Ordinary Table (CSO) for Individual Life • 25Y Select & Ultimate structure • Gender distinct – Male/Female • 5 underwriting classes (3 non-smoker/2 smoker) SOA 2016 Group Life Experience Study for Group Life • Gender distinct – Male/Female
Mortality Improvement	Unknown source • 1.00%	2017 Improvement Scale for VM-20 • Varies by gender and age

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Appendix: Risk Distribution Approach Comparison

Risk	Original Work	Recommendation
Volatility	Binomial(Policies, q)	Binomial(Policies, q)
Level	Implicit from Discrete Scenarios: • 7 Competitive Pressures scenarios – risk of overoptimistic pricing assumptions • 15 AIDS scenarios – early 90's estimates of the impact of AIDS on insured mortality (could fit in level, trend, or catastrophe)	$LR \sim N(0, \sigma_{Lev}); \sigma_{Lev} = \sqrt{\sigma_{Cred}^2 + \sigma_{MVol}^2}$ • Two independent components: • Credibility/statistical sampling volatility (σ_{Cred}) • True mortality volatility (σ_{MVol}) • Continuous normal distribution
Trend	Discrete Distribution • 7 scenarios adjust mortality improvement assumption	$[M1, M2, \dots, M16] \sim N(\mu, \Sigma)$ • 6 gender/age group improvement variables ($M1_6$) • Correlated normally distributed random variables
Catastrophe	Discrete Distribution • Pandemic	3 Discrete Distributions • Pandemic – calibrated from multiple sources • Terrorism – 5% probability of additional 0.05 / 1K • Unknown Risk – 2.5% probability of a sustained 5% increase

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Appendix: Model Validation, Peer Review, Limitations

- **Validation:** Model assumptions were developed by the work group through reviewing current mortality research and studies applicable to the U.S. life insurance industry. The assumptions were discussed, reviewed and agreed upon through the work group's bi-weekly calls. Model results and sensitivities were also reviewed extensively by the work group. The work group also provided several updates to the NAIC Life Risk-Based Capital Working Group throughout the project and feedback was obtained from regulators.
- **Peer Review:** The model was independently peer reviewed by a member of the work group. The peer review confirmed that the calculations performed by the model were reasonable for the intended purpose and were being applied as intended.
- **Limitations:** The model is intended to stochastically project through Monte Carlo simulation the run-off of inforce life insurance blocks typical of U.S. life insurers in order to develop capital factors for use in the NAIC RBC formula for C-2 life insurance mortality risk. Other uses outside of this intended purpose may not be appropriate. Product features in the model were developed at a very basic level and consider differences in base statutory reserves, lapses, post level term mortality experience, face amounts and attained ages. The model is not designed to replicate detailed product and inforce block characteristics unique to individual companies. In particular, ULSG products were not directly modeled. The work group concluded based on the modeling that the capital factors are insensitive to product differences for a given risk exposure period. The recommendation to differentiate based on product is an indirect way to get at the length of mortality rate guarantee, utilizes the current reporting structure of the annual statements, and is aligned with principles based reserving differentiation.

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Appendix: Prior Work Group Presentations to Life RBC

- [September 2020](#)
- [December 2019](#)
- [June 2019](#)
- [April 2019](#)
- [August 2018](#)
- [August 2017](#)

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Custody Control Accounts

March 2022

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J.P.Morgan

Credit mitigation vs. capital relief

- ▶ Life reinsurance transactions with licensed or accredited reinsurers generally do not require a collateral mechanism to provide credit for reinsurance (CFR).
- ▶ Separate and distinct from CFR, the Life RBC Manual instructions reference certain collateral mechanisms (e.g., funds withheld or trustee collateral), which, if present, allow the Cedant to avoid an overstatement of RBC charges that would otherwise be applied for credit exposure to reinsurance counterparties. The Life RBC formula addresses uncollateralized credit exposure to reinsurers, whether admitted/accredited or unauthorized, and offers RBC credit only for certain listed collateral mechanisms.
- ▶ While the subject provision of the Life RBC Manual allows an RBC credit for certain non-CFR collateral mechanisms, certain other credit risk mitigation (comfort) arrangements developed by large custodial institutions are not similarly treated, resulting in significant inefficiencies in certain life reinsurance transactions.

Growing demand for 'comfort trusts'

- ▶ In many life reinsurance transactions, where the parties negotiate and agree to collateral arrangements for commercial reasons, they are forced to use trustee assets in order to achieve the desired RBC credit, even where a trust is not needed to satisfy CFR requirements; such "comfort trusts" are common in a variety of life reinsurance transactions, including block acquisitions, embedded value and reserve financings and pension risk transfers
 - J.P. Morgan is aware of numerous transactions that involve over \$50 billion of assets held in Comfort Trusts
- ▶ Other collateral mechanisms can provide the same level of security to Cedants with lower costs and greater flexibility.

Custody Control Accounts

- ▶ The Finance industry widely supports and leverages custodial control accounts (“Custody Control Accounts”) where segregated collateralization under third-party control is required (e.g. pledges to FHLBs, Segregated Initial Margin, variation margin for 40 Act clients, etc.).
 - In the same way, a Custodian can hold assets pledged by the Reinsurer for the benefit of the Cedant in connection with a reinsurance transaction.

- ▶ The intent of the Custody Control Account is to provide the same protections to the Cedant as would be provided by a trust arrangement. Both Comfort Trusts and Custody Control Accounts can be structured to:
 - Segregate assets to cover claims and other amounts payable under the subject reinsurance agreement
 - Establish a senior claim of the Cedant over the account assets in the event of a Reinsurer insolvency or receivership
 - Permit the Cedant to take control of the assets in the event of specified breaches of the reinsurance agreement
 - Allow the Cedant to monitor the composition of assets in the account
 - Restrict Reinsurer withdrawal and replacement of assets from the account based on agreed conditions

- ▶ However, a Custody Control Account offers the same operational control as a trust arrangement, at a reduced cost due to increased scale and automation:
 - Custodial arrangements represent the majority of collateralized assets held by Custodian banks.
 - Custody Control Accounts provide a greater level of automation and straight-through-processing, resulting in lower costs (up to \$100K per annum, per account) for all parties (insurers and Custodians).
 - Custody Control Accounts and Comfort Trusts both offer the following services: :
 - Priced Position Reporting
 - Monitoring of specific withdrawal and replacement conditions based on objective criteria
 - Detailed transaction reporting
 - Administration and servicing of assets
 - Today, Clients have a limited number of banks that are able to provide Comfort Trusts with the same capabilities and at the same price as a custody arrangement. By allowing Custody Control Accounts to receive the same RBC treatment as Comfort Trusts, insurers would be able to select among a larger group of providers.

Proposed changes to RBC instruction

From Risk-Based Capital Forecasting & Instructions – Life and Fraternal, 2019

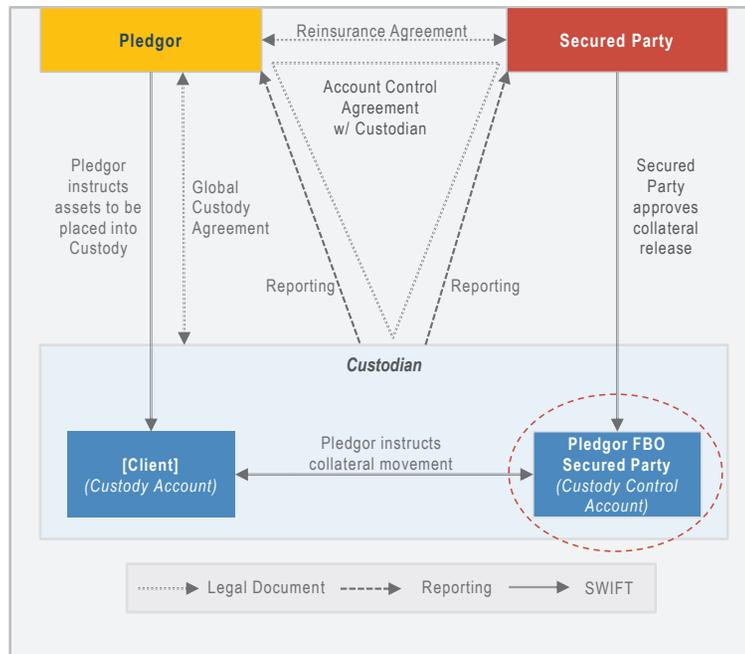
REINSURANCE

LR016 (p. 53 of the 2019 Edition)

There is a risk associated with recoverability of amounts from reinsurers. The risk is deemed comparable to that represented by bonds between risk classes 1 and 2 and is assigned a pre-tax factor of 0.78 percent. To avoid an overstatement of risk-based capital, the formula gives a 0.78 percent pre-tax credit for reinsurance with non-authorized and certified companies, for reinsurance among affiliated companies, for reinsurance with funds withheld or reinsurance with authorized reinsurers that is supported by equivalent trusteed or custodied collateral ~~that meets the requirements of the types~~ stipulated in paragraph 18 of Appendix A-785 (Credit for Reinsurance), where there have been regular bona fide withdrawals from such trusteed or custodied collateral to pay claims or recover payments of claims during the calendar year covered by the RBC report, and for reinsurance involving policy loans. Withdrawals from trusteed or custodied collateral that are less than the amounts due the ceding company shall be deemed to not be bona fide withdrawals. For purposes of these instructions, “custodied collateral” shall mean assets held pursuant to a custodial arrangement with a qualified U.S. financial institution (as defined in Appendix A-785 (Credit for Reinsurance)) pursuant to which the underlying assets are segregated from other assets of the reinsurer and are subject to the exclusive control of, and available to, the ceding company in the event of the reinsurer’s failure to pay under, and otherwise pursuant to the terms of, the subject reinsurance agreement.

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Custody Control Account



Legal & Operational Highlights

Legal Documents Required	Legal & Operational Framework
<ul style="list-style-type: none"> ▶ Global Custody Agreement: Bilateral agreement for custodial services between Pledgor and Custodian ▶ Account Control Agreement: Tri-party agreement between Pledgor, Secured Party and Custodian 	<ul style="list-style-type: none"> ▶ Custody Bank acts as Custodian (<u>not</u> as Trustee) ▶ Custodian has subordinated lien over assets in the control account (though may retain a first priority lien for fees and expenses) ▶ Assets are segregated in a control account in the Pledgor's name FBO the Secured Party ▶ The Secured Party can assume control of the account at any time upon the satisfaction of conditions as stipulated in the underlying bilateral agreement w/ the Pledgor (e.g. an event of default as notified and exclusively determined by the Secured Party) and following Custodian's receipt of a Notice of Exclusive Control (NOEC). Custodian has a reasonable time to act on the instruction and does not validate the event of default. ▶ Custodian is indemnified for following instructions ▶ Custodian acts upon instructions by Pledgor to deliver assets into the control account ▶ Parties have flexibility to decide on the control model – i.e., whether release and/or substitution of assets requires single party or dual (Pledgor and Secured Party) instructions ▶ The Account Control Agreement supplements a Global Custody Agreement and is not a standalone agreement.

Key Features

Custody	<ul style="list-style-type: none"> ▶ Pledgor instructs assets to be placed into custody account free of payment ▶ Asset servicing on securities that are registered in J.P. Morgan's nominee name ▶ Automated income transfer capability, back to main custody account in respect of any income earned on depository eligible assets can be provided
Control	<ul style="list-style-type: none"> ▶ SWIFT message release automation for collateral release AND substitutions. Support for different arrangements (e.g. Single/Joint Authentication). ▶ Secured Party can assume control of account upon Notice of Exclusive Control instruction to the Custodian (NOEC)
Reporting	<ul style="list-style-type: none"> ▶ Consolidated custody reporting available to both client and secured party ▶ View and schedule customized or pre-defined reports ▶ Intra-day and end-of-day reporting via SWIFT

The chart below summarizes key comparisons between: (1) a trust account established by a reinsurer to provide an asset or reduction from liability to a ceding company for reinsurance ceded (a “Credit for Reinsurance Trust”); (2) a trust account established by a reinsurer in connection with a reinsurance agreement that is not necessary to provide an asset or reduction from liability for reinsurance but rather provides credit protections to the ceding company (a “Comfort Trust”); and (3) a custodial account established by a reinsurer to provide credit protections to a ceding company in connection with a reinsurance agreement (a “Comfort Custodial Account”). With respect to a Comfort Custodial Account, the chart contemplates the structure proposed by JPMorgan in connection with its proposed changes to the RBC Manual.

	Credit for Reinsurance Trust	Comfort Trust	Comfort Custodial Account
Nature of Reinsurer	Reinsurer is not licensed or accredited in Cedant’s domiciliary jurisdiction.	Reinsurer is licensed or accredited in the Cedant’s domiciliary jurisdiction.	Reinsurer is licensed or accredited in the Cedant’s domiciliary jurisdiction.
Effect on Credit for Reinsurance	Collateral in trust provides a reduction for liability (statutory credit for reinsurance) where Reinsurer is not licensed or accredited.	No effect on Credit for Reinsurance as collateral is not required in order for the Cedant to receive statutory reserve credit.	No effect on Credit for Reinsurance as collateral is not required in order for the Cedant to receive statutory reserve credit.
Cedant Reinsurance Counterparty Credit Exposure RBC Charges and Credits	An RBC credit is applied to offset the RBC charge for reinsurance counterparty credit exposure because such exposure has been mitigated through the trust mechanism.	An RBC credit is applied to offset the RBC charge for reinsurance counterparty credit exposure because such exposure has been mitigated through the trust mechanism.	Although credit exposure would be reduced under a Comfort Custodial Account similar to both a Credit for Reinsurance Trust or Comfort Trust, the current RBC instructions mandate a reinsurance counterparty credit charge with no offsetting credit because of the form of the legal agreement governing the collateralization arrangement. Under JPMorgan’s proposed revisions to the RBC Instructions, the RBC charges and credits across all three of these arrangements would be harmonized. Custodial Account Equivalent with a trust.

	Credit for Reinsurance Trust	Comfort Trust	Comfort Custodial Account
Structure	Assets deposited in trust with a third-party trustee by the Reinsurer for the benefit of the Cedant.	Assets deposited in trust with a third-party trustee by the Reinsurer for the benefit of the Cedant.	Assets deposited in custodial account established by the Reinsurer with a third-party account bank subject to the first priority lien and exclusive control of the Cedant.
Asset Classes	Assets permitted to be deposited in trust are specified by the applicable statute. Frequently limited to cash, U.S. Treasuries or Agencies and SVO Listed Securities.	Asset classes are subject to the RBC instructions, and additionally include foreign securities, equity interests and interests in investment companies.	Asset classes would be subject to the RBC instructions, and additionally include foreign securities, equity interests and interests in investment companies.
Valuation	Cedant is only allowed to receive credit for reinsurance based on the <u>market value</u> of assets of the Trust Account.	Valuation is based on the contractual agreement between the parties. Frequently comfort trust agreements and related reinsurance agreements provide that the asset balance required is based on <u>book value</u> of assets unless one or more specified credit events have occurred, in which case market values are required.	Similar to a Comfort Trust, parties would agree to method of valuation of account assets.
Duties of Trustee/Bank	Trustee is a directed trustee, required to hold assets and act in accordance with the instructions of the parties, as set forth in the Trust Agreement.	Trustee is a directed trustee, required to hold assets and act in accordance with the instructions of the parties, as set forth in the Trust Agreement.	Bank would be required to hold assets and act in accordance with the instructions of the parties, as set forth in the Account Control Agreement.
Title of Assets	Title of assets is transferred to the trustee of the trust.	Title of assets is transferred to the trustee of the trust.	Title of assets is maintained by the Reinsurer, but subject to a lien in favor of the Ceding Company, which lien is perfected through exclusive control over the assets pursuant to an Account Control Agreement.

	Credit for Reinsurance Trust	Comfort Trust	Comfort Custodial Account
Withdrawal Conditions	<p>No conditions are allowed for the withdrawal of assets by the Ceding Company.</p> <p>Withdrawal of assets by the Reinsurer is generally not allowed except to the extent that the market value of assets exceeds 102% of the reserves ceded under the reinsurance agreement, in which case the Reinsurer can request the trustee to release such excess.</p>	<p>Reason and nature for withdrawal by the Ceding Company are agreed to by the parties and is typically based on specified defaults of the Reinsurer.</p> <p>Withdrawals by Reinsurer may be allowed based on both market value or book value tests; if such tests are met, the Reinsurer can request the trustee to release such excess.</p>	<p>Reason and nature for withdrawal by the Ceding Company are agreed to by the parties and is typically be based on specified defaults of the Reinsurer.</p> <p>Withdrawals by Reinsurer may be allowed based on both market value or book value tests; if such tests are met, the Reinsurer can request the Bank to release such excess and the corresponding lien.</p>
Substitution of Assets	<p>Substitution of assets are only allowed to the extent that the market value of replacement assets exceeds the market value of the replaced assets.</p>	<p>Restrictions on substitutions are agreed between the parties and are typically based on book value and market value of relevant assets.</p>	<p>Restrictions on substitutions are agreed between the parties and are typically based on book value and market value of relevant assets.</p>

January 24, 2022

Capital Adequacy (E) Task Force RBC Proposal Form

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

<p style="text-align: right;">DATE: _____</p> <p>CONTACT PERSON: _____</p> <p>TELEPHONE: _____</p> <p>EMAIL ADDRESS: _____</p> <p>ON BEHALF OF: _____</p> <p>NAME: _____</p> <p>TITLE: _____</p> <p>AFFILIATION: _____</p> <p>ADDRESS: _____</p>	<p style="text-align: center;"><u>FOR NAIC USE ONLY</u></p> <p>Agenda Item # _____</p> <p>Year _____</p> <p style="text-align: center;"><u>DISPOSITION</u></p> <p><input type="checkbox"/> ADOPTED _____</p> <p><input type="checkbox"/> REJECTED _____</p> <p><input type="checkbox"/> DEFERRED TO _____</p> <p><input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____</p> <p><input type="checkbox"/> EXPOSED _____</p> <p><input type="checkbox"/> OTHER (SPECIFY) _____</p>
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IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

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

DESCRIPTION OF CHANGE(S)

In reference to SAPWG referral 2020-#36 (8/13/2018) and VOSTF referral 2020-#38 (9/21/2018); Attribute bond risk-based capital (RBC) factors to bond mutual funds that have applied for Regulatory Treatment Analysis Service (RTAS) and have received a National Association of Insurance Commissioners (NAIC) designation from the Securities Valuation Office (SVO), based on a look-through calculation of the credit risk for the fund's underlying bonds, using a weighted average rating factor methodology (WARF) in conjunction with a qualitative review of the fund's pertinent U.S. Securities and Exchange Commission (SEC) registered investment documents. Proposed factor changes:

Current (SVO review unavailable)		New (With SVO review)			
Designation	Factor	Designation	Life Factors	P&C Factors	Health Factors
NA	0.300	1.A	0.00158	0.002	0.003
		1.B	0.00271	0.004	0.005
		1.C	0.00419	0.006	0.008
		1.D	0.00523	0.008	0.011
		1.E	0.00657	0.010	0.014
		1.F	0.00816	0.013	0.016
		1.G	0.01016	0.015	0.019
		2.A	0.01261	0.018	0.022
		2.B	0.01523	0.021	0.025
		2.C	0.02168	0.025	0.031
		3.A	0.03151	0.055	0.069
		3.B	0.04537	0.060	0.076
		3.C	0.06017	0.066	0.083
		4.A	0.07386	0.071	0.089
		4.B	0.09535	0.077	0.097
		4.C	0.12428	0.087	0.110
		5.A	0.16942	0.098	0.123
		5.B	0.23798	0.109	0.137
		5.C	0.30000	0.120	0.151
		6	0.30000	0.300	0.300

REASON OR JUSTIFICATION FOR CHANGE **

Background

Until recently, all mutual funds, bond or equity-oriented, were classified as “common stock,” unless they met specific eligibility criteria for inclusion on the now-discontinued Money Market Mutual Fund List or Bond Mutual Fund List. The Bond Mutual Fund List eligibility criteria were narrow in scope¹, only permitting bond-like treatment of a mutual fund if it invested solely in Purposes and Procedures (P&P) Manual-listed U.S. Government securities with the fund maintaining the highest credit quality rating given by an NAIC Credit Rating Provider (CRP). Since the discontinuation of these lists, the SVO has positioned a new list known as the NAIC Fixed Income-Like SEC Registered Funds List to allow for the evaluation and inclusion of mutual funds that predominantly invest in individual bond securities.

NAIC staff previously questioned the equity-like treatment for bond mutual funds as part of the Statutory Accounting Principles (E) Working Group’s (SAPWG) investment classification project. As a part of this project, NAIC staff determined that the inclusion of “mutual funds” within the “common stock” definition was overly broad.² Consequently, the SAPWG adopted a proposal to add a column on Schedule D, Part 2, Section 2 (subsequently implemented by Blanks (E) Working Group) that would permit funds designated by the SVO (and only funds designated by the SVO) to be reported on that schedule. Eligibility for such reporting would require an NAIC designation that could, in turn, align with an RBC factor to be determined by the Capital Adequacy (E) Task Force. This action effectively recognized that with appropriate review of underlying holdings, more appropriate risk-based capital treatment can be achieved through the designation process, without changing the reporting schedule or accounting for such investments. This adoption led to a referral from SAPWG (2020–#36) for RBC consideration.

Concurrently, the Valuation of Securities (E) Task Force (VOSTF) directed NAIC staff to develop a comprehensive proposal to ensure consistent treatment for investments in funds that predominantly hold bond portfolios, across all schedules. Significant efforts were made to align fund guidance and evaluation treatment in the P&P Manual. The adopted language created the new, aforementioned NAIC Fixed Income-Like SEC Registered Funds List of the P&P Manual, which expanded the existing evaluation framework to permit review and designation for all funds issued by an investment company whose offering is registered with and regulated by the SEC and whose published investment objective is to invest almost exclusively in bonds. The VOSTF’s procedure permits the sponsor of a fund or an insurer to request an SVO assessment of a fund to determine if it meets requirements imposed by the Task Force for more appropriate treatment. If the fund is eligible, the SVO adds the name of the fund to the relevant list with a preliminary NAIC designation. This adoption led to a referral from VOSTF (2020–#38) that the Capital Adequacy (E) Task Force (CAPAD) consider formally integrating the comprehensive instructions for mutual funds adopted for the P&P Manual into the NAIC RBC framework, by attributing bond RBC factors to any bond fund meeting the P&P Manual criteria, and achieving an NAIC designation through the SVO’s evaluation process.

Both of these preceding events and changes have effectively positioned bond mutual funds to be accurately evaluated, designated, and reported with RBC charges that are reflective of the bond securities within the fund.

Regulation

Bond mutual funds (investment companies) are registered with and regulated by the SEC and have published investment objectives to invest in bonds. Strict regulation has enabled bond mutual funds to reliably deliver bond exposure to investors for over 85 years, through unprecedented market events, such as the interest rate shock in the 1970s that saw the U.S. Federal Funds’ rate go above 14%, and also, when interest rates were cut to near 0%, during the global financial crisis and the years that followed. As of year-end 2020, there is over \$5.2 trillion in total net assets entrusted to the bond mutual fund investment structure (ICI Investment Company Fact Book 2021).

¹Purposes and Procedures Manual of the NAIC Investment Analysis Office: Part Three – SVO Procedures and Methodology for Production of NAIC Designation (2019); “A bond mutual fund is eligible for inclusion on the Bond List if the fund meets the following conditions: The fund shall invest 100% of its total assets in the U.S. Government securities listed in the section below, class 1 bonds that are issued or guaranteed as to payment of principal and interest by agencies and instrumentalities of the U.S. Government, including loan-backed bonds and collateralized mortgage obligations, and collateralized repurchase agreements comprised of those obligations at all times.”

²SAPWG – Ref #2013-36 – SSAP No. 30 – Common Stock – Key Elements: The inclusion of “mutual funds” within the “common stock” definition is overly broad and allows inclusion of all “investment company” investments, and the characteristics of some of these investments may warrant separate accounting and reporting consideration (e.g., look-through). Per the SEC, an “investment company” is a company (corporation, business trust, partnership, or limited liability company) that issues securities and is primarily engaged in the business of investing in securities.

Mutual funds are stringently regulated under the Investment Company Act of 1940 (the “ ’40 Act”) and the Securities Act of 1933. These laws impose extensive obligations on the mutual fund and its investment adviser. As an SEC-regulated investment company, a mutual fund must invest its portfolio assets in accordance with the investment strategies outlined in its prospectus and other governing fund documents. The fund prospectus is an SEC-regulated legal document, updated annually, to inform current and prospective investors of the risks, fees, and investment strategy of the fund. It is not permissible for a bond mutual fund to change its investment strategy in any fundamental way that does not require the fund to at least notify its shareholders of the change, and in most cases, a mutual fund’s fundamental investment strategies cannot be altered without shareholder approval.

Additionally, Section 17(f) of the ’40 Act imposes strict regulations that require the portfolio securities (purchased on behalf of the investors) to be held by an independent custodian, segregated from the fund sponsor’s own assets. Section 17(f) also requires the net assets of the fund to be physically segregated from assets of other funds, and from the assets of the investment adviser (or any other person/entity), and provides for, among other things, periodic examinations of the assets by an independent public accountant. Finally, the SEC requires mutual fund custodians to protect a fund’s assets by segregating them from their own assets. Fund custodians must have authorized instructions from the fund’s authorized representative, designated by an officer of the fund, to deliver securities or cash from the fund.

Structure

Mutual funds should be treated (for RBC purposes) in accordance with their underlying portfolio holdings because those portfolio securities drive the value and risks of the mutual fund. A shareholder in a mutual fund has a proportionate interest in, and exposure to, the underlying portfolio of securities held by the mutual fund. Bond mutual funds exist to pool the interests of many shareholders for the purpose of investing in fixed-income securities and pass through the cash flows and investment returns generated by its bond portfolio. Because the mutual fund must honor investor redemption requests at the Net Asset Value (NAV) per share, that is, at the actual value of the investor’s proportionate interest in the mutual fund’s underlying bond portfolio, the NAV is a highly accurate reflection of the fund’s underlying portfolio. The fund is simply a conduit for the performance of the underlying portfolio securities, as the federal securities laws make clear – under Rule 22c-1 of the ’40 Act, shares of an open-end mutual fund generally may only be bought or sold at the fund’s net asset value, which is the value of its underlying portfolio securities less fund liabilities and expenses as determined under Rule 2a-4 of the ’40 Act. Consequently, the risks of investing in a mutual fund are a reflection of the securities constituting its portfolio. In the case of a bond mutual fund, the risks and interests represented are that of the individual bonds held.

An examination of what this structure means for insurers

A bond mutual fund is not an operating company engaged in a trade or business that issues common stock and does not share inherent characteristics of common stock.¹ The securities that the bond mutual fund holds represent the economic value of the fund. In other words, a bond fund investor has no rights in the underlying securities owned, with respect to: 1) ownership of the companies; 2) voting rights in those companies, and; 3) sharing in the company profits or losses. Any contention that a bond mutual fund should be treated as an equity from a RBC standpoint is inconsistent with these rights and the debt exposures conveyed through the ’40 Act structure.

As previously stated, a bond mutual fund shareholder has a proportionate interest in the underlying securities (bonds), as reflected in the current NAV per share for the fund, but only directly owns shares of the mutual fund. The shareholder does not directly own the bonds, and therefore, does not have a direct creditor relationship with the issuer.² Instead, the bond mutual fund, as a registered investment company, is the direct owner of the individual bonds, and carries the creditor relationship with the issuers. Within this legal structure, the fund itself (as creditor) does not default, in the traditional sense, with respect to its relationship with the shareholder. Rather, each individually owned bond within the portfolio carries risk of default to its creditor (i.e., the bond mutual fund). For this structural reason, default risks occur “within the fund” at the same statistical occurrence rate as in any other debtor/creditor ownership structure for the bond securities (e.g., an insurer owning the bond directly). Any default occurrence is immediately recognized in the fund’s NAV, just as any other institutional investor would recognize the same default on their balance sheet. Therefore, credit risk of a bond mutual fund can be represented as a product of the weighted average credit risk of the individual bonds owned by the fund, and probabilities of default hold true for each underlying security. As with direct bond ownership, bond funds have interest rate, inflation, and credit risk associated with the underlying bonds owned by the fund, reflected in the daily NAV.

¹Section 3(a)(1)(C) of the [Investment Company Act](#) defines an investment company as an issuer that is engaged or proposes to engage in the business of investing, reinvesting, owning, holding or trading in securities, and owns or proposes to acquire “investment securities”

²Management companies usually are structured as corporations or trusts. A management company’s board of directors (or trustees) oversees the management of the company. See [Section 2\(a\)\(12\) of the Investment Company Act](#). A management company’s investment adviser (which is typically a separate entity, registered with the Commission) manages the company’s portfolio securities for a fee. See [Section 2\(a\)\(20\) of the Investment Company Act](#).

We can further examine this structure by defining the prospective constituents. Within the bond mutual fund legal structure, the fund is the investment “company”¹, and the registered investment adviser of the fund serves as the portfolio manager, investing for economic benefit for the “company”.² This economic benefit is then proportionally passed-through the registered investment company (i.e., mutual fund) to the shareholder (e.g., insurer), in exchange for a fee, in the form of an expense ratio. Similarly, an insurance “company” may directly own a portfolio of hundreds or thousands of bonds that are managed by an internal team of investment management professionals that it compensates for these services, for the economic benefit of their general account and policy holders. Finally, an insurance “company” may access these bonds through a separately managed account (SMA) of individual bonds, managed on behalf of the “company” by a professional asset management firm. Once again, the investment adviser is acting in a fiduciary capacity for the insurer for the economic benefit of the “company” and its owners, in exchange for a management fee.

Structure	Portfolio holdings	Bond Owner	Portfolio Adviser	Economic Benefit
Mutual Fund	100 Bonds	Mutual Fund	Fund Sponsor	Insurer General Account
Separately Managed Account	100 Bonds	Insurer	Investment Firm	Insurer General Account
Direct ownership	100 Bonds	Insurer	Insurer Employee	Insurer General Account

In all three arrangements, regardless of structure, there is a portfolio of bonds, a company that owns those bonds, portfolio adviser, and economic benefit passed on to the general account. Bonds held directly, or through other types of investment vehicles, hold the same types of securities. Therefore, portfolios of securities held in registered open-end management investment companies under the '40 Act should receive similar RBC treatment, in order to promote consistent, accurate application of capital treatment for structural ownership arrangements that produce the same economic value and risks.

An examination of credit rating downgrades

Based on structure, it should also be noted that there are no significant differences with respect to individual bond downgrades and the options available to manage such downgrades. This includes passively managed mutual funds that track a fixed income benchmark. When an issuer downgrade occurs, the downgrade is uniformly occurring within the bond market for any creditor, whereby a negative change in the rating of the bond security has occurred. A downgrade happens when a credit rating agency analyst feels that the future prospect for the security has weakened from the original recommendation, usually due to a material and fundamental change in the company's operations, future outlook, or industry, but does not indicate a guarantee of default. In each structure described, the owner has similar options.

While a passively managed mutual fund's objective is to track and deliver indexed returns, it is not legally obligated to sell a bond that has been downgraded out of scope of the index, at the time of the announced downgrade event, or even at the time in which the tracked benchmark provider removes the bond from the index, on the last day of the month of occurrence. Instead, the mutual fund, just like the individual institutional owner or SMA, has options to mitigate its risk and manage its portfolio for the benefit of the shareholder. In all ownership structures, the owner may: 1) sell the bond; or 2) hold the bond despite the implied increase of risk.

Also, a downgrade does not necessarily equate to illiquidity and can result in either a discounted sale price option for the owner (immediately recognized in the NAV of a mutual fund), or in some instances, an increased value and sale price (recognized increase to mutual fund NAV) in the bond market, due to the market's perception of a higher yield from the issuer that may not necessarily represent increased default risks to the prospective buyer. A mutual fund provider may leverage its scale and strong broker/dealer relationships to trade this security at a specific time (or over time) that will give the fund best execution and economic value.

Additionally, downgrades occur annually for a relatively small portion of the total U.S. bond market, and have represented less than 1% of issuance, on average, from 2007 to 2020.* Of these downgrades, the majority remained within investment grade quality, with only 0.1% falling below investment grade.* At the same time, a bond mutual fund only holds a fraction of bond market issues, and therefore may only own a fraction of a fraction of downgraded bonds that could in any manner impact a decision to sell the bond from the portfolio. As was previously discussed, these decisions to potentially mitigate portfolio risk are no different across ownership structures and immaterial in the decision to apply a certain set of risk-based capital factors.

*Calculated based on, Bloomberg Finance L.P., Moody's, S&P, Fitch, and SIFMA market data.

Validity of evaluation methodology

The recommendation to apply bond factors to bond mutual funds, based on an SVO quantitative and qualitative review, is based on an NAIC approach successfully conducted for almost 30 years (see previous citation of eligible bond mutual funds that invest 100% of their total assets in the U.S. Government securities). The approach is consistent with past NAIC practice, easy to implement, and considers the role of the VOSTF in identifying investment risks and the practical approach expressed in the administration of the RBC framework, which is based on default characteristics of corporate bonds, but applied to many other instruments, with risk and default characteristics unlike those of corporate bonds. This method for evaluating risk, and application of bond factors as a proxy to achieve appropriate levels of risk-based capital for these investments, has proven over decades that it is built on sound policy and should also be readily be applied to bond mutual funds.

Current SVO procedures permit the sponsor of a fund, or an insurer, to request a SVO assessment of a fund to determine if the fund is within scope of the comprehensive instructions for mutual funds, adopted in the Purposes and Procedures Manual of the NAIC Investment Analysis Office (P&P Manual). If, and only if, the fund is eligible, the SVO conducts an analysis, and adds the name of the fund to the relevant list, with a preliminary NAIC designation. Therefore, any bond mutual funds not submitted through the established SVO framework would continue to be covered by SSAP No. 30 and remain ineligible for NAIC designation and/or corresponding bond RBC factors. This rigorous process includes evaluation upon initial submission to the SVO and an ongoing process that has the ability to adapt ratings if a fund's composition or investment approach changes. For any rated fund the analysis would be conducted by the SVO twice each year; once during the fund provider's mandatory annual review and again when an insurer files notice of its ownership of the fund.

The SVO's well-developed analysis framework (successfully implemented for bond ETFs since 2004) includes a comprehensive look-through to all securities held in the investment in order to assess the inherent risks borne by the fund. This calculation of the credit risk for the fund's underlying investment portfolio uses a weighted average rating factor methodology (WARF). The WARF factor for each portfolio security (issue/security specific) is determined by first translating its NAIC CRP rating into an NAIC Designation. For bond securities that are unrated but have an NAIC Designation, the Designation is used. The WARF factor for that NAIC Designation is then market value-weighted. The weighted factor for each investment is summed to determine the fund's credit rating, which is then translated into the equivalent NAIC Designation.

The analysis is detailed in nature and accurately identifies similar risks of credit quality and interest rate sensitivity, associated with the underlying bonds, but also scrutinizes the rare instances where funds have more of a heterogeneous investment profile or dispersion of risk. The analysis is built on three key pillars:

- An extensive *quantitative look-through* analysis that is built on sound mathematical principles, in which a fund cannot "hide" lower-quality bonds behind those with stronger credit quality. Instead, the risks of any lower-quality bonds result in a higher NAIC designation and corresponding RBC charge. This total charge for a given dollar of investment is often higher than if the same dollar was invested with proportionate weighting in each individual bond within the portfolio. As an example, Vanguard's designated bond ETFs consistently give insurers diversified exposure to "higher" credit quality, relative to the applied NAIC designation, corresponding RBC factor, and total capital charge. (Data can be provided upon request. The same principle will hold true for similarly structured '40 Act mutual funds.).
- A *qualitative review* of the fund, considering the fund's objectives and investment constraints, as outlined in the SEC-regulated prospectus; thus, the SVO review considers the full range of the fund's possible future bond investments, not just the present.
- *Ongoing regulatory oversight* of the mutual funds used in insurers' portfolios, which remains a critical safeguard. If an insurance company buys a preliminarily designated listed fund, it must file that fund with the SVO for an additional analysis and official validation of the previously analyzed credit risks in order to receive an official NAIC designation. This new analysis takes into account any credit quality changes in a fund, including previously discussed downgrades, which may or may not have been sold from the fund. Only after this additional analysis does the SVO assign an official NAIC designation and enter the security into the NAIC systems for fixed-income like treatment.

Validity and summary of bond factor application

A mutual fund is a reflection of the composition of individual bonds within the fund's portfolio. Every bond mutual fund will have its own unique number and variety of holdings, credit quality exposure, and therefore risk associated with the fund. Due to the endless variety of holdings and credit exposure that a fund can contain, a single, one-time analysis cannot be conducted at a mutual fund industry level to standardize new RBC factors to be applied across various "buckets" of bond mutual funds. Therefore, the approach to look-through each submitted bond mutual fund, using the WARF methodology, and apply as a proxy a bond designation, is the only appropriate analysis that can be conducted to accurately apply an RBC factor aligned with the risk of each unique portfolio.

As previously described, mutual funds are pass-through entities that pass through the cash flows and investment experience generated by the portfolio. If the fund only holds debt, the investor will only experience debt-like cash flows through the fund, generated by the principal and interest of the individual bonds held by the fund. Additionally, the risks of the bond fund are a reflection of the aggregate risks of each underlying bond component of the portfolio. As an investor in those bonds, a mutual fund bears those risks proportionate to its exposure in the security in the same manner that an insurer would bear the risk proportionate to their investment exposure in a specific individual bond held.

Within the context of RBC and how bond factors are attributed on a basis of a debtor’s ability to meet obligations to a creditor, the mutual fund “company” itself does not default in its relationship with the shareholder, because there is no creditor/debtor relationship with the shareholder. Therefore, standardized default rates of funds cannot be analyzed. Similarly, an insurer who owns a portfolio of bonds does not default, but rather, individual bonds within the insurer’s portfolio have default probabilities based on the credit quality of the issuer and the risk to not meet obligations. The same economic experience exists for both investing entities, and each creditor has the same legal protections and opportunity for economic recovery. However, in the event a decision is made to trade the bond in default, a bond mutual fund provides a structural advantage to most other institutions, due to scale and broker/dealer relationships that include dedicated coverage. Because of these advantages, bond mutual funds can more effectively trade these bonds at an opportune time, thus creating efficiencies of value in comparison to other owners of the issuance in default.

As the owner of the individual bonds, the mutual fund has a direct creditor relationship with the bond issuer and is subject to default at a statistical rate inherent in the creditworthiness of the issuer. In this case, the mutual fund directly bears the risk of issuer default and the financial impact in a manner proportionate to each bond. This is the same creditor relationship and risk that an individual insurer experiences when it directly owns individual bonds with varying credit qualities, at varying amounts, within their individually managed portfolio or SMA. Therefore, RBC for the individual insurance company is an aggregate of the weighting the insurer has to each individual bond and its credit quality. Similarly, when the SVO analyzes a mutual fund they look at the individual weighting to each bond and its credit quality to produce a weighted average, just as you mathematically can with an individual insurer’s portfolio. (Data can be provided upon request.)

Impact

Impact should be considered secondary to applying charges that are appropriate to the risk of the investment and the validity of such factors, as previously described. Utilization of bond RBC factors will be aligned with the CAPAD policy that insurers are capitalized at a minimally acceptable level and aligned and implemented through an SVO methodology that accurately assesses the underlying credit risk. With accurate application of valid RBC factors, impact will be appropriate.

Bond mutual funds offer a number of benefits to insurers, including the ability to redeem shares with the fund, daily valuation of the portfolio at NAV, immediate low-cost diversification, and professional investment management. By pooling together the assets of thousands or millions of investors, mutual funds achieve greater scale and efficiency than virtually any investor, including many insurers, could hope to obtain individually. Importantly, the biggest beneficiaries of a broader inclusion of bond mutual funds for bond RBC application would be small and mid-size insurers. In our experience, these companies often have challenges constructing diversified bond portfolios without incurring high costs because of the comparatively limited scale of their portfolios. Allowing for expansion of bond factor application to SVO evaluated bond mutual funds would accurately reflect the inherent risk in the portfolio and remove an inconsistent barrier to these low-cost options provided by top institutional money managers. These managers can help insurers increase the probability of meeting their portfolio goals while simultaneously reducing risk through greater diversification.

For those insurers that currently invest in bond mutual funds, but receive an equity-like factor, future impact to RBC cannot be accurately measured, because there is an unknown variable in the number of bond mutual fund asset managers that will apply for RTAS in order to receive an NAIC designation with a corresponding bond factor. However, given the knowledge and resources required to submit a mutual fund for such treatment, it can reasonably be hypothesized that a limited number of mutual funds will apply for the SVO review process and receive bond factors, leading to a minimal effect across these held bond mutual funds and on insurer RBC. Below, is a historical three-year summary of the small amount invested in bond mutual funds that would have asset manager “eligibility” to apply for review and bond factor treatment.

Approximate bond mutual fund admitted assets (\$MM)	2017	2018	2019	2020
Life companies	\$565	\$1,200	\$725	\$964
Non-life companies	\$3,735	\$3,100	\$4,275	\$4,836
Total	\$4,300	\$4,300	\$5,000	\$5,800

These invested funds would be eligible for bond factor RBC only if they submit for, and undergo, the SVO evaluation process, leading to an official NAIC designation listing. The above figures equate to less than 1/10 of 1% of insurers' net admitted assets, according to statutory filings. Given the incredibly small allocation to bond funds within insurer portfolios, even in the most extreme assumed instance, where RBC would reduce from a 30% common stock charge to the lowest NAIC designation and charge (0.39% or 0.30%) for all current holdings, there would be very little impact to investment RBC, which is only one contributing factor to a company's overall RBC.

Administrative Changes

@ NAIC RBC Group

Additional Staff Comments:

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

Revised 2-2019

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03/28/22

Draft: 3/28/22

Property and Casualty Risk-Based Capital (E) Working Group
Virtual Meeting (*in lieu of meeting at the 2022 Spring National Meeting*)
March 23, 2022

The Property and Casualty Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met March 23, 2022. The following Working Group members participated: Tom Botsko, Chair, and Dale Bruggeman (OH); Charles Hale (AL); Wanchin Chou, Qing He, Amy Waldhauer, and George Bradner (CT); Robert Ridenour and Virginia Christy (FL); Judy Mottar (IL); Leatrice Geckler (NM); Halina Smosna and HauMichael Ying (NY); Will Davis (SC); Miriam Fisk and Monica Avila (TX); and Adrian Jaramillo and Michael Erdman (WI). Also participating were: Chris Erwin and Leo Liu (AR); Rolf Kaumann (CO); Adrienne Lupo (DE); Patrick P. Lo (HI); Tish Becker (KS); Vanessa Sullivan (ME); Julie Lederer (MO); Justin Schrader and Gordon Hay (NE); Trey Hancock (TN); and Steve Drutz (WA).

1. Adopted Catastrophe Risk (E) Subgroup Feb. 22, 2022; Jan. 25, 2022; and Dec. 16, 2021, Minutes

Mr. Chou said the Catastrophe Risk (E) Subgroup met Feb. 22, 2022; Jan. 25, 2022; and Dec. 16, 2021. During these meetings, the Subgroup took the following action: 1) adopted proposal 2021-15-CR (Adding KCC Models), which the Subgroup exposed for a 30-day public comment period ending Nov. 26, 2021; 2) adopted proposal 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only), which the Subgroup exposed for a 60-day public comment period ending Feb. 13; 3) heard an update from the Catastrophe Model Technical Review Ad Hoc Group. The update included the discussion of the survey questions created by the members within the group, which were based on *Actuarial Standard of Practice (ASOP) No. 38—Catastrophe Modeling (for All Practice Areas)*; 4) discussed three different kinds of catastrophe models that deviate from the vendor models. The Subgroup will focus on discussing the vendor catastrophe models with adjustments or different weight first; 5) discussed the issue of double counting in the R5 component. The Subgroup asked the interested parties to review the current methodology and provide comments in the upcoming meetings; 6) discussed the possibility of adding flood peril in the Rcat component. Industry asked the Subgroup to consider the materiality issue with respect to whether the flood peril is warranted, given the exposure of the industry; and 7) heard a presentation from Milliman on the private flood market.

Mr. Chou made a motion, seconded by Mr. Davis, to adopt the Subgroup's Feb. 22, 2022 (Attachment Five-A1); Jan. 25, 2022 (Attachment Five-A2); and Dec. 16, 2021 (Attachment Five-A3) minutes. The motion passed unanimously.

2. Adopted the Report of the Catastrophe Risk (E) Subgroup

Ms. Smosna said the Subgroup met March 22, 2022, and took the following action: 1) adopted its Feb. 22, 2022; Jan. 25, 2022; and Dec. 16, 2021, minutes; 2) discussed its 2022 working agenda items; 3) discussed the insured loss threshold for wildfire peril; 4) exposed proposal MOD 2021-17-CR (Wildfire Information-Only Reporting Exemption) for a 14-day public comment period ending April 5; 6) discussed the independent model review instruction in the Rcat component; and 7) discussed the issue of double counting in the R5 component.

Mr. Chou made a motion, seconded by Mr. Hale, to adopt the report (Attachment Five-A) of the Catastrophe Risk (E) Subgroup. The motion passed unanimously.

3. Adopted Proposal 2021-15-CR (Adding KCC Models)

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Mr. Chou said the purpose of this proposal is to include the Karen Clark & Company (KCC) model as one of the approved third-party commercial catastrophe models. The Subgroup received one supporting letter, which encouraged the Subgroup to keep the approval list current with market usage.

Mr. Chou made a motion, seconded by Mr. Ridenour, to adopt proposal 2021-15-CR. The motion passed unanimously.

4. Adopted Proposal 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only)

Mr. Chou said the purpose of this proposal is to include wildfire peril in the Rcat component for informational purposes filing until all the concerns are addressed before incorporated into the risk-based capital (RBC) calculation. He stated that the Subgroup received three comment letters during the exposure period. However, Mr. Chou indicated that the Subgroup agreed to take time to evaluate the impact and allow more time for the modelers to enhance their modeling approach with this new peril.

Mr. Chou made a motion, seconded by Mr. Ridenour, to adopt proposal 2021-17-CR. The motion passed unanimously.

5. Adopted Proposal 2021-14-P (R3 Factor Adjustment)

Mr. Botsko said this proposal intends to eliminate the double-counting effect of the operational risk charge on the component. He said NAIC staff performed an analysis to determine the impact on the RBC action levels by reducing the 2% reinsurance recoverable RBC charge for all reinsurance designation equivalents. The result indicated that the impact is insignificant, as there are only three companies with total adjusted capital (TAC) between zero to 75 million that will change the RBC results from action level to no action. He also stated that the Working Group received no comments during the exposure period.

Mr. Chou made a motion, seconded by Mr. Davis, to adopt proposal 2021-14-P. The motion passed unanimously.

6. Exposed Proposal 2022-01-P (Removing Trend Test for Informational Purposes Only Footnote)

Mr. Botsko said since the trend test has been adopted by every state, the purpose of this proposal is to remove the trend test for information-only wordings in the PR033 footnote.

The Subgroup agreed to expose proposal 2022-01-P for a 30-day public comment period ending April 22.

7. Discussed its Working Agenda

Mr. Botsko summarized the changes of Working Group's 2022 working agenda, which included the following substantial changes: 1) adding the exposure and/or adoption dates to the items of "evaluate other catastrophe risks for possible inclusion in the charge" and "evaluate the possibility of allowing additional third-party models or adjustments to the vendor models to calculate the cat model losses"; 2) changing the expected completion dates for "evaluate the proposed changes from the Affiliated Investment Ad Hoc Group related to P/C RBC Affiliated Investments," "continue working with the Academy to review the methodology and revise the underwriting (Investment Income Adjustment, Loss Concentration, LOB UW risk) charges in the PRBC formula as appropriate," "evaluate if changes should be made to the P/C formula to better assess companies in runoff," and

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“evaluate the Underwriting Risk Line 1 Factors in the P/C formula” items; 3) removing the “modify instruction to PR027 Interrogatories that clarify how insurers with no gross exposure to earthquake or hurricane should complete the interrogatories” and “evaluate R3 Adjustment for Operational Risk Charge” items; 4) adding the adoption date to the “implement wildfire peril in the Rcat component (for informational purposes only)” item; and 5) adding “evaluate the possibility of modifying exemption criteria for different cat perils in the PR027 interrogatories,” “evaluate the possibility of enhancing the independent model instructions,” and “remove the trend test footnote in PR033” items under the new items section.

Without hearing any comments from state insurance regulators and industry, Mr. Botsko said the working agenda will be forwarded to the Capital Adequacy (E) Task Force for consideration.

8. Heard Updates on Current P/C RBC Projects from the Academy

Allan Kaufman (American Academy of Actuaries—Academy) said the Academy’s Property/Casualty (P/C) Risk-Based Capital Committee provided a report describing the calibration of indicated Line 4 premium and reserve risk factors, which was one of the three reports that the Academy described to the Working Group in 2019. He stated that currently, the Academy has four ongoing projects. First is the second of the three reports, which is the line 7 and line 8 of premium and reserve risk, respectively. Mr. Kaufman said he anticipates that this report would be shared with the Working Group for discussion during the next quarter. Second is the third of the three reports, which is the line 14 (loss and premium concentration factors) of premium and reserve risks. He said he anticipates that this report will be provided to the Working Group by end of 2022. He also stated that the last two projects, which are an update to the factors used to avoid overlap between the line 4 premium risk factor and the separate hurricane and earthquake charges in Rcat and the development of a revised approach of line 1 factor, will be presented to the Working Group by the end of the next quarter and by the end of 2022 or early 2023, respectively.

9. Discussed Other Matters

Mr. Botsko said a response letter to request for input regarding the definition of run-off companies was forwarded to the Restructuring Mechanisms (E) Subgroup in April 2021. The Subgroup planned to schedule a meeting in April to discuss this issue. Mr. Botsko encouraged all the interested parties to participate at the meeting and provide thoughts to the Working Group during the upcoming meeting.

Lastly, Mr. Botsko was pleased to announce that Mr. Chou will be serving as Working Group vice chair.

Having no further business, the Property and Casualty Risk-Based Capital (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/Spring 2022 National Meeting/Task Forces/CapAdequacy/PCRBCWG/03-23propertyrbcwg.docx

Draft Pending Adoption

Attachment Five-A
Capital Adequacy (E) Task Force
3/28/22

Draft: 3/28/22

Catastrophe Risk (E) Subgroup
Virtual Meeting (*in lieu of meeting at the 2022 Spring National Meeting*)
March 22, 2022

The Catastrophe Risk (E) Subgroup of the Property and Casualty Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met March 22, 2022. The following Subgroup members participated: Wanchin Chou, Chair, George Bradner, and Qing He (CT); Halina Smosna, Chair, Gloria Huberman, HauMichael Ying (NY); Laura Clements and Giovanni Muzzarelli (CA); Jane Nelson (FL); Judy Mottar (IL); Gordon Hay (NE); Anna Krylova (NM); Tom Botsko (OH); Andrew Schallhorn (OK); and Miriam Fisk, Monica Avila, and Rebecca Armon (TX). Also participating were: Adrienne Lupo (DE); Brock Bubar (ME); and Julie Lederer (MO).

1. Adopted its Feb. 22, 2022; Jan. 25, 2022; and Dec. 16, 2021, Minutes

Mr. Chou said the Subgroup met Feb. 22, 2022; Jan. 25, 2022, and Dec. 16, 2021. During these meetings, the Subgroup took the following action: 1) adopted proposal 2021-15-CR (Adding KCC Models), which the Subgroup exposed for a 30-day public comment period ending Nov. 26, 2021; 2) adopted proposal 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only), which the Subgroup exposed for a 60-day public comment period ending Feb. 13, 2022; 3) received an update from the Catastrophe Model Technical Review Ad Hoc Group. The update included the discussion of the survey questions created by the members within the group, which were based on *Actuarial Standard of Practice (ASOP) No. 38—Catastrophe Modeling (for All Practice Areas)*; 4) discussed three different kinds of catastrophe models that deviate from the vendor models. The Subgroup will focus on discussing the vendor catastrophe models with adjustments or different weight first; 5) discussed the issue of double counting in the R5 component. The Subgroup asked the interested parties to review the current methodology and provide comments in the upcoming meetings; 6) discussed the possibility of adding flood peril in the Rcat component. Industry asked the Subgroup to consider the materiality issue with respect to whether the flood peril is warranted, given the exposure of the industry; and 7) heard a presentation from Milliman on the private flood market.

Mr. Botsko made a motion, seconded by Ms. Clements, to adopt the Subgroup's Feb. 22, 2022 (Attachment Five-A1); Jan. 25, 2022 (Attachment Five-A2); and Dec. 16, 2021 (Attachment Five-A3) minutes. The motion passed unanimously.

2. Discussed its Working Agenda

Ms. Smosna summarized the changes of the 2022 working agenda, which included the following substantial changes: 1) adding the exposure and adoption dates to the "evaluate the possibility of allowing additional third-party models or adjustments to the vendor models to calculate the cat model losses" item; 2) removing the "modify instruction to PR027 Interrogatories that clarify how insurers with no gross exposure to earthquake or hurricane should complete the interrogatories" item; 3) adding the adoption date to the "implement wildfire peril in the Rcat component (for informational purposes only)" item; and 4) adding "evaluate the possibility of modifying exemption criteria for different cat perils in the PR027 interrogatories" and "evaluate the possibility of enhancing the independent model instructions" items under the new items section. Without hearing any comments from state insurance regulators and industry, Ms. Smosna said the working agenda will be forwarded to the Property and Casualty Risk-Based Capital (E) Working Group for consideration.

Draft Pending Adoption

Attachment Five-A
Capital Adequacy (E) Task Force
3/28/22

3. Discussed the Insured Loss Threshold for Wildfire Peril

Ms. Smosna asked the Subgroup to consider using the same threshold of 25 million or greater estimated insurer losses for wildfire peril as the earthquake and hurricane perils. She said any received comments regarding this item will be discussed during the Subgroup's next meeting on April 19.

4. Exposed Proposal MOD 2021-17-CR (Wildfire Information-Only Reporting Exemption)

Scott Williamson (Reinsurance Association of America—RAA) said this modification applies only to those smaller companies, where the modeling requirements would impose a cost and compliance burden that represent an outsized cost relative to the incremental benefit of providing the modeled data for information-only purposes. He stated that this exemption option is intended only to apply to the information-only reporting for wildfire, while the Subgroup continues to evaluate materiality and model maturity. It would no longer be available when the wildfire peril is added to the Rcat component unless the companies qualify under the exemptions listed in PR027 Interrogatory items C(7), C(8), or C(9).

The Subgroup agreed to expose proposal MOD 2021-17-CR for a 14-day public comment period ending April 5.

5. Discussed the Independent Model Review Instruction in the Rcat Component

Mr. Chou said some written comments related the instructions to review an internal model were received from the Missouri Department of Commerce and Insurance (DCI) earlier (Attachment Five-A4). Ms. Lederer said the DCI asked the Subgroup to look into the following items in the internal model review instructions: 1) consider rewording item 3 to make the Subgroup's intention clear; 2) consider reviewing the comparison of internal model estimates to actual results for historical events; and 3) experiencing difficulty in receiving written documentation from the group-wide supervisor. She also stated that the DCI did not engage an outside consultant to review the model as this model is highly confidential. It was quite a heavy lift for reviewing based on the Rcat instructions. Ms. Lederer also said the DCI is not aware of any other companies that applied for permission to use their internal models in other states.

Mr. Chou urged the interested parties to review the current PR027 internal model instructions and provide comments or wordings to the NAIC staff in next three weeks. He said any received information will be discussed during the Subgroup's next meeting on April 19.

6. Discussed the Issue of Double Counting in the R5 Component

Ms. Smosna said the NAIC did not receive any comments on this item since the Subgroup's last meeting on Feb. 22. She said the wildfire peril will follow the same process as the other perils to adjust the R5 component based on the PR100's data collection. The Subgroup agreed unanimously.

7. Discussed Other Matters

Mr. Chou said that the AIR Worldwide, Risk Management Solutions (RMS), and Karen Clark & Company (KCC) are the only third-party commercial vendor wildfire models agreed to be used by the Subgroup. He stated that the Subgroup only agreed on using the CoreLogic model for earthquake and hurricane peril and ARA HurLoss and Florida Public Model (FPHLM) for hurricane peril only. These clarifications will be reflected in the 2022 Risk-Based Capital (RBC) PR027 instructions.

Draft Pending Adoption

Attachment Five-A
Capital Adequacy (E) Task Force
3/28/22

Having no further business, the Catastrophe Risk (E) Subgroup adjourned.

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Draft: 3/4/22

Catastrophe Risk (E) Subgroup
Virtual Meeting
February 22, 2022

The Catastrophe Risk (E) Subgroup of the Property and Casualty Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Feb. 22, 2022. The following Subgroup members participated: Wanchin Chou, Co-Chair, and Qing He (CT); Halina Smosna, Co-Chair, Gloria Huberman, and HauMichael Ying (NY); Robert Ridenour, Vice Chair, and Jane Nelson (FL); Laura Clements, Lynne Wehmueller, and Giovanni Muzzarelli (CA); Judy Mottar (IL); Anna Krylova (NM); Tom Botsko (OH); Andrew Schallhorn (OK); and Miriam Fisk and Rebecca Armon (TX). Also participating was: Julie Lederer (MO).

1. Consider Adoption of Proposal 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only)

Mr. Chou said the Subgroup identified wildfire as one of the major drivers of U.S. insured losses during the previous meeting. He also stated that a referral letter from the Climate and Resiliency (EX) Task Force was received on March 15, 2021, to recommend that the Subgroup consider: 1) expanding the current catastrophe framework to include other perils such as wildfire, flood, and/or convective storms that may experience a greater tail risk under projected climate-related trends; and 2) implementing two perils in the risk-based capital (RBC) framework by year-end 2022 if possible. He said a response was sent by the Subgroup on April 26, 2021, indicating that the catastrophe models are complicated; the Subgroup will need time to review and gain a better understanding so the costs and benefits for using the models are justified. He also said a proposal to include wildfire peril in the Rcat component for informational purposes only was developed and exposed for a 60-day public comment period ending Feb. 13. He stated that the Subgroup received three comment letters during the exposure period; some minor editorial changes in the proposal were made based on the received comment letters to clarify that this proposal is for informational purposes only and no timeline has been set for the RBC implementation until the needed enhancements and statistical impacts are implemented. In addition, the exemption interrogatory clearly indicated that the exemption rules to address the minimal wildfire exposure are consistent with the earthquake and hurricane perils.

Matthew Wulf (Swiss Re) recommended that the Subgroup consider extending the informational purposes only period to allow companies the time to responsibly incorporate either a vendor or internal model fully into pricing, risk selection, and capital management processes. Matthew Vece (American Property Casualty Insurance Association—APCIA) also supported an extended, multi-year period for informational-only filings until all the concerns are addressed before incorporated into RBC for solvency purposes, as wildfire models are still in the new stage of development, and the models are more prone to yielding inconsistent results, especially in the tail of the distribution. Jonathan Rodgers (National Association of Mutual Insurance Companies—NAMIC) and Scott Williamson (Reinsurance Association of America—RAA) said they submitted a comment letter on Feb. 13. Mr. Rodgers suggested that the filing only be required for companies that currently employ the approved models. He also stated that the comment letter clearly indicates that both NAMIC and the RAA do not think wildfire models are ready to be relied upon for solvency purposes; exploring other opportunities to address this peril during the for informational purposes only period is worth consideration. Mr. Botsko recommended that the Subgroup move the proposal forward, as the Subgroup agreed to take time to evaluate the impact and allow more time for the modelers to enhance their modeling approach with this new peril. Mr. Williamson asked the Subgroup to consider adopting the proposal with a carve out for companies that do not currently employ the model. Ms. Smosna asked for clarity around the term “employ” and whether Mr. Williamson means “license” models or “use” models, because many companies use models through their broker relationships and do not actually license the models. Mr. Williamson stated that he intended the term “employ” to refer to companies that license the models. Ms.

Smosna expressed concern that that might leave out too large a universe of companies from the informational-only process. Mr. Chou said the Subgroup will continue working with the RAA to resolve the exemption issues in the near future. He also encouraged all the interested parties to keep reviewing the comments and continue discussing the outstanding issues in the upcoming meetings.

Having no further comments, Mr. Botsko made a motion, seconded by Mr. Ridenour, to adopt proposal 2021-17-CR. The motion passed unanimously.

2. Discussed the Independent Model Review Instructions in Rcat

Mr. Chou said during the previous discussion, the Subgroup identified three different kinds of catastrophe models that deviate from the vendor models: 1) internal catastrophe models; 2) vendor catastrophe models with adjustments or different weight; and 3) derivative models based on the vendor models. He stated that the Subgroup will focus on discussing the vendor catastrophe models with adjustments or different weight first. He said he believes the PR002 Attestation and PR027 Catastrophe Risk pages will require further modification to better accommodate this type of model. Ms. Lederer said the Missouri Department of Commerce and Insurance (DCI) has used the RBC instructions to review an internal catastrophe model. She said she would like to offer some comments to the Rcat instructions in the upcoming meeting. Mr. Chou also asked the industry to review the instructions and provide comments at the Spring National Meeting.

3. Discussed the Issue of Double Counting in the R5 Component

Ms. Smosna said the wildfire peril will follow the same process as the other perils to adjust the R5 component based on the PR100s data collection. She said any received comments regarding this item will be discussed in the upcoming meeting.

4. Heard a Presentation Regarding the Private Flood Market

Nancy Watkins (Milliman) provided a presentation on: 1) flood market background; 2) the need for flood catastrophe models; 3) flood and catastrophe model regulation; and 4) flood model evaluation (Attachment Five-A1a). Mr. Chou said currently, the Subgroup just started the discussion on: 1) the materiality of the flood peril; and 2) the RBC financial solvency regulations. He stated that Ms. Watkins will be invited back for another presentation if the Subgroup decides to further study this peril.

Lastly, Mr. Chou said the Subgroup will continue discussing all the outstanding issues at the Spring National Meeting.

Having no further business, the Catastrophe Risk (E) Subgroup adjourned.

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U.S. Private Flood Market

NAIC Catastrophe Risk (E) Subgroup

February 22, 2022

Nancy Watkins, FCAS, MAAA
Principal & Consulting Actuary, Milliman

Agenda

- Flood market background
- The need for flood catastrophe models
- Flood and catastrophe model regulation
- Flood model evaluation



Flood risk is increasing...

"The rain broke records set just 11 days before by Tropical Storm Henri, underscoring warnings from climate scientists of a new normal on a warmed planet: Hotter air holds more water and allows storms to gather strength more quickly and grow ever larger."

New York Times, September 7, 2021

"The United States is expected to experience as much sea level rise by the year 2050 as it witnessed in the previous hundred years...sea levels along the coastline will rise an additional 10-12 inches by 2050 with specific amounts varying regionally, mainly due to land height changes."

National Oceanic and Administration Association, February 15, 2022

Helmetta, NJ
TS Henri, August 2021
Image Source: weather.com

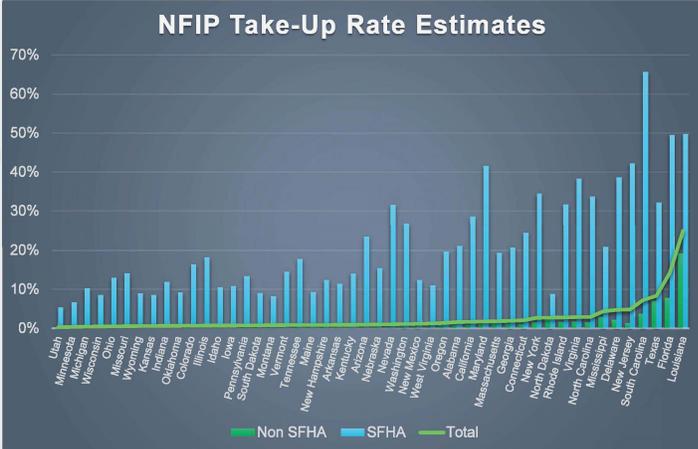
LaPlace, LA
Hurricane Ida, August 2021
Image Source: NPR

Waverly, TN
Flash floods, August 2021
Image Source: New York Times



...but the U.S. flood insurance market is underserved

- Current U.S. residential flood insurance market
 - Estimated **4%** of SFHs have flood insurance (2021)
 - NFIP: **\$3.6B** total premium on **4.8M** policies (2019)
 - Private insurers reported **\$735M** in Private Flood DWP (2020) vs. **\$577M** in DWP (2019)
 - About **one-third** of Private Flood DWP is estimated to be residential
 - 175** private carriers writing flood insurance (2020) vs. 152 in 2019
 - Potential U.S. residential flood insurance market is between **\$37B** and **\$47B** of DWP
- For comparison purposes, 2020 HO DWP was **\$110B**



What makes an insurance market sustainable?

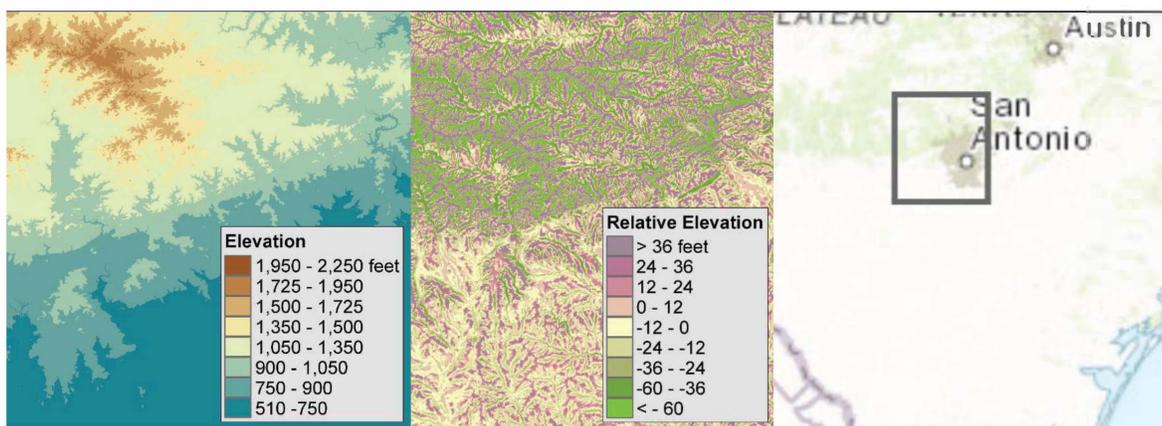
Availability	Affordability	Reliability
<ul style="list-style-type: none"> Insurer can manage and measure the risk Insurer can charge premiums that represent the cost of risk transfer 	<ul style="list-style-type: none"> Policyholders are able to pay the premium 	<ul style="list-style-type: none"> Insurer will be able to pay claims System will be stable over the long term





Flood risk is local

Varies greatly over short distances and requires granular rating

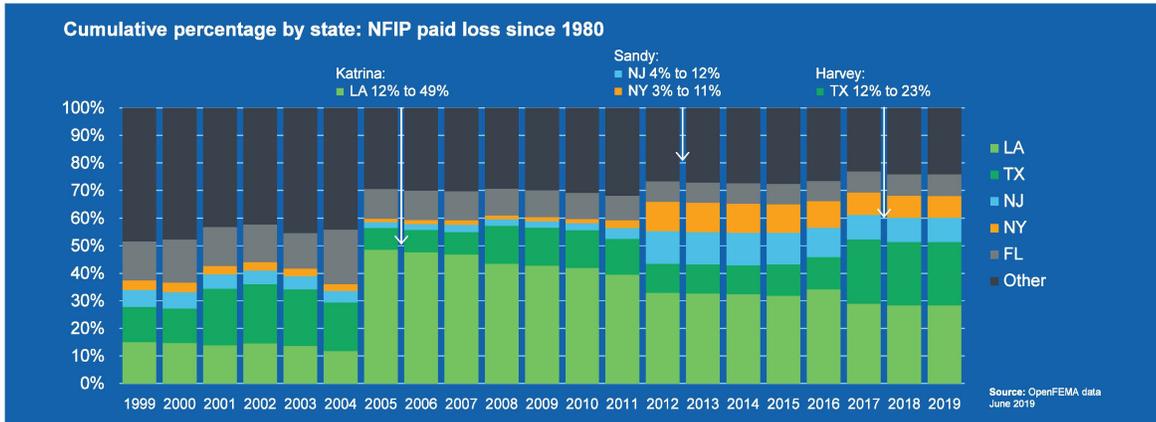


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Flood risk is catastrophic

Requires advanced catastrophe models for risk measurement and management



National Flood Insurance Program

Supplementing historical experience with advanced catastrophe models

FEMA is updating the NFIP risk rating methodology through the implementation of a new pricing methodology called Risk Rating 2.0.

The methodology leverages industry best practices and cutting-edge technology to enable FEMA to deliver rates that are actuarially sound, equitable, easier to understand and better reflect a property's flood risk.

Risk Rating 2.0 was implemented for new policies in October 2021 and will apply to renewal policies in April 2022.

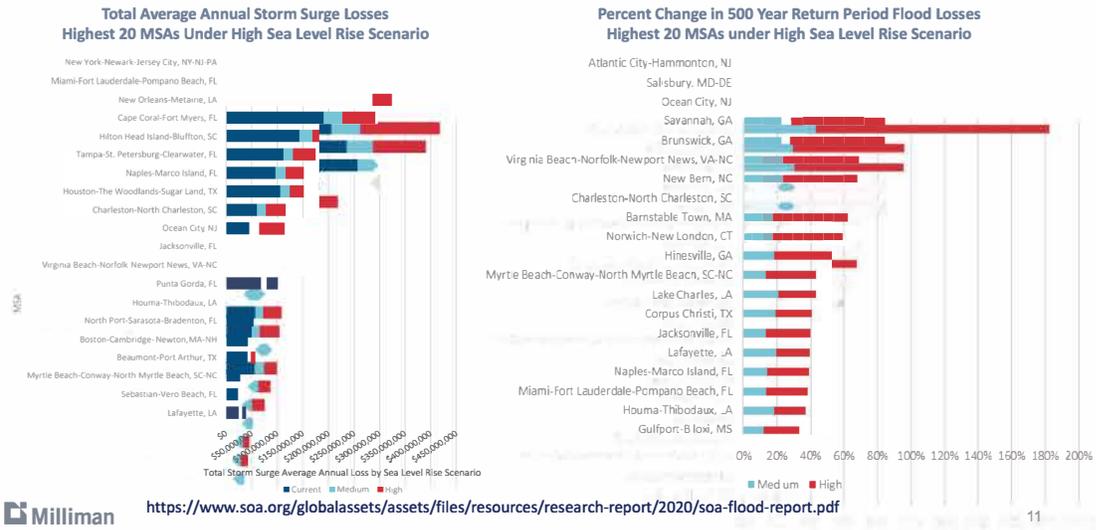
As part of the rate development process, FEMA supplemented NFIP's historical loss experience with commercial catastrophe models for inland flood and storm surge.



Description of RR 2.0 methodology and data sources: <https://www.fema.gov/flood-insurance/risk-rating>

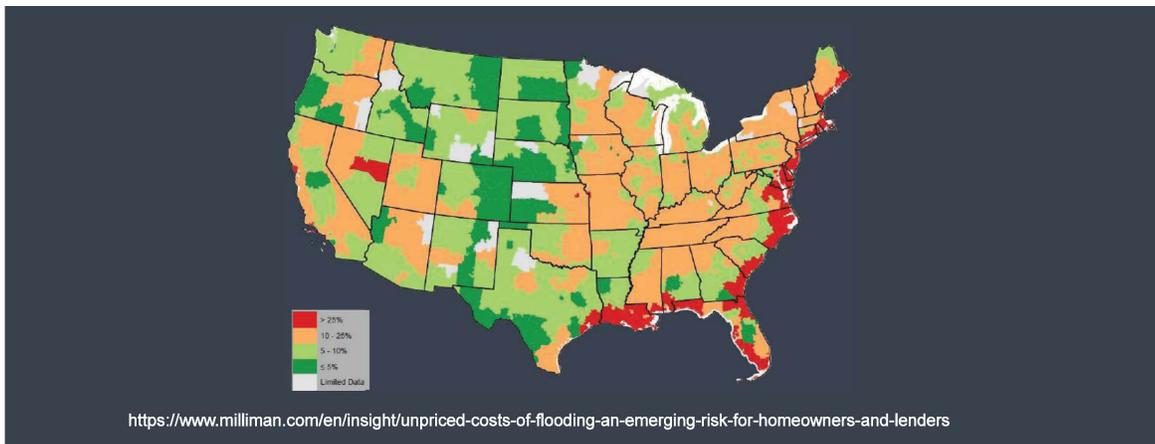


Flood models are used to estimate the effect of sea-level rise



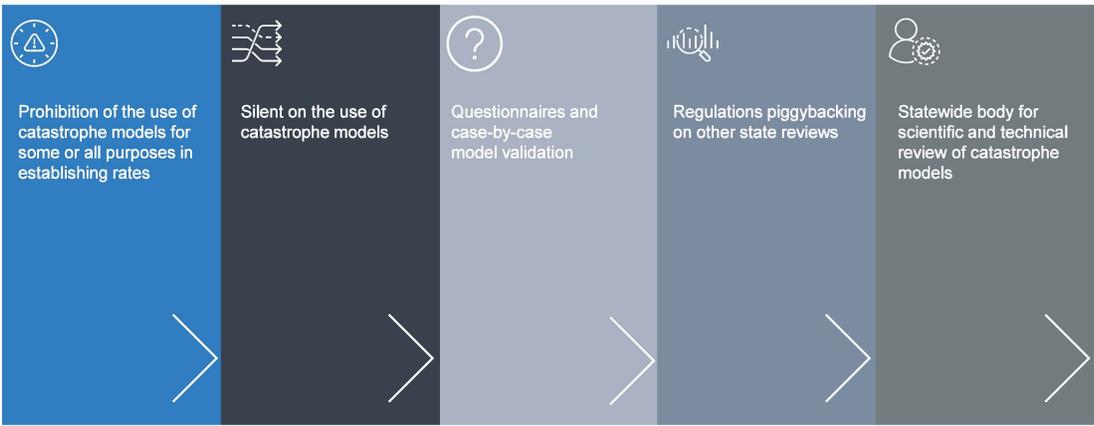
Flood models are necessary for climate-readiness

Under a high climate scenario, an estimated 750k single-family properties in the US will face major repricing by 2050





Catastrophe model treatment varies widely among states



How different states treat catastrophe models

Florida

Models used in rate filings must be accepted by Florida Commission on Loss Projection Methodology, which conducts extensive reviews of hurricane and now flood models

South Carolina

Models must be approved in South Carolina; historically have followed Florida's lead

Hawaii

Models must be accepted but historically have not been reviewed frequently, resulting in the requirement to use old models

California

Not allowed for setting overall rate levels (except for Earthquake and Fire Following Earthquake). Allowed for setting rate relativities, granular territory definitions, underwriting/tying.

New York

Does not allow catastrophe models



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Flood model evaluation



Evaluation of emerging models

Specific actuarial techniques

- Calibration versus out-of-sample validation
- Reasonability checking
 - Is the aggregate AAL believable?
 - How often does it produce unreasonable location level AALs?
 - Does it produce logical relationships with risk?
 - Does it produce discontinuities?
- Does it reflect important variables that alter vulnerability?
- Does it include all important sub-perils?
- How does it compare to other models (if available)?
- Give special consideration to outliers

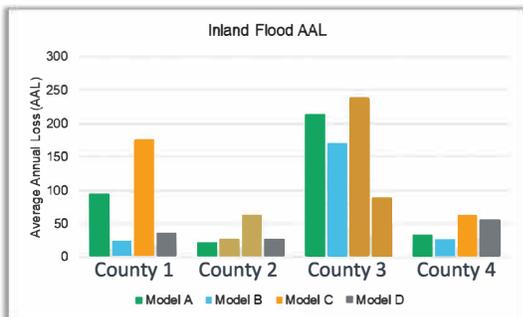


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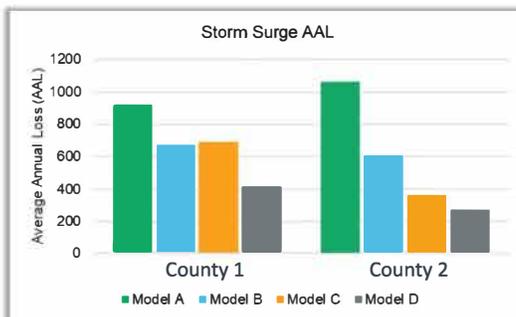
Example: Annual Average Loss (AAL) by model

Average AAL impacts the rate level

Wide disparities exist across different models for inland flood



Storm surge also shows sizeable variation of AALs across models



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Example: Inspection of individual risks

Which modeled AALs are most reasonable?

Beach house



Model A	Model B	Model C
\$1,000	\$30	\$20,000

Inland property



Model A	Model B	Model C
\$1,500	\$3	\$30



Example: Correlation among models

Higher agreement in relative risk for storm surge than inland flood

Inland flood (4 counties)

	Model A	Model B	Model C	Model D
Model A	1.00	0.26	0.36	0.33
Model B		1.00	0.30	0.23
Model C			1.00	0.34
Model D				1.00

None of the models are highly correlated for inland flood

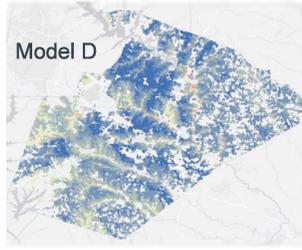
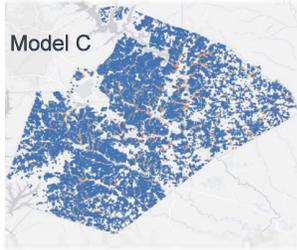
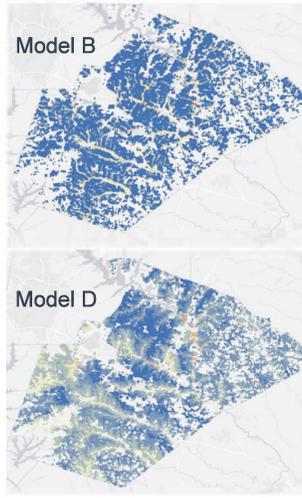
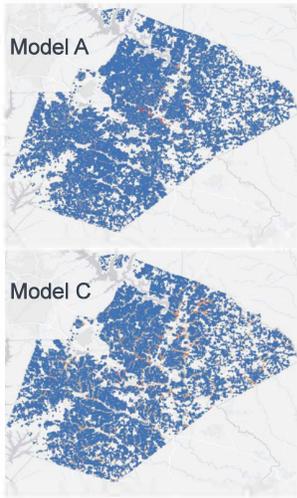
Storm surge (2 counties)

	Model A	Model B	Model C	Model D
Model A	1.00	0.88	0.85	0.81
Model B		1.00	0.85	0.91
Model C			1.00	0.83
Model D				1.00

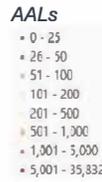
Significantly higher correlation among storm surge AALs



Example: Spatial analysis of inland flood



- Model A shows limited high AALs
- Model B shows high AALs farther away from rivers
- Model C shows more high-AAL locations, generally very close to rivers
- Model D shows high AALs the farthest away from rivers



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Proposal for catastrophe model clearinghouse

Multi-disciplinary panel to develop standards, select expert reviewers, and manage model review process



Third-party experts chosen by panel to perform confidential reviews

- Consistent professional review team for all models for a given peril
- Expert team would depend on nature of model but could include engineers, scientists, technologists, actuaries, claims experts, other professionals



Voluntary participation by states who wish to rely on expert model review

- Retention of state-level control of ultimate determination of acceptability
- States may add filing-specific questions regarding model usage



Potential clearinghouse deliverables

- Standardized modeler disclosures
- Market basket output for state level regulatory analysis, comparison
- Third-party expert reports reviewing model compliance with standards, suitability for specific purposes



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Vision for sustainable private flood insurance market



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Draft: 2/2/22

Catastrophe Risk (E) Subgroup
Virtual Meeting
January 25, 2022

The Catastrophe Risk (E) Subgroup of the Property and Casualty Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Jan. 25, 2022. The following Subgroup members participated: Wanchin Chou, Chair, and Qing He (CT); Robert Ridenour, Vice Chair, and Jane Nelson (FL); Laura Clements and Giovanni Muzzarelli (CA); Judy Mottar (IL); Gordon Hay (NE); Anna Krylova and Leatrice Geckler (NM); Halina Smosna and Gloria Huberman (NY); Tom Botsko and Dale Bruggeman (OH); Andrew Schallhorn (OK); Will Davis (SC); and Miriam Fisk, Rebecca Armon, and Monica Avila (TX).

1. Discussed the Possibility of Adding Flood Peril in the Rcat Component

Mr. Chou said the Subgroup received a referral letter from the Climate and Resiliency (EX) Task Force in March 2021, which recommended that the Subgroup consider expanding the current catastrophe framework to include other perils such as wildfire, flood, and/or convection storms that may experience a greater risk under projected climate-related trends. He also said a response from the Subgroup stated that it was focusing on developing the risk charge for the wildfire perils at that time due to limited resources. He said last year, the Subgroup completed: 1) reviewing three different wildfire vendor models; and 2) adopting the Karen Clark & Company (KCC) earthquake and hurricane models. As the wildfire instructions and risk-based capital (RBC) structure is currently exposed for comments, he believes now is a good time to start reviewing the next peril; i.e., flood. He stated that the flood model review ad hoc group will be established next month to start the review process. He said he anticipates that the process will be similar to the wildfire model review process, which will include six different phases: 1) introduction to flood models; 2) in-depth technical reviews; 3) impact studies (model comparison); 4) developing RBC risk charge; 5) exposing the flood peril RBC structure and instructions for information purposes only; and 6) modifying the structure and instructions based on the comments and feedback. He urged all the interested parties to contact NAIC staff if they are interested in joining the ad hoc group. Scott Williamson (Reinsurance Association of America—RAA) encouraged the Subgroup to consider the materiality issue with respect to whether the flood peril is warranted, given the exposure of the industry. He also asked NAIC staff to perform a materiality analysis to determine if it makes sense to proceed further. Mr. Botsko recommended that the Subgroup consider conducting a company survey to determine if the exposure of not only the flood but also the convective storms are significant enough to study further. Ralph Blanchard (Travelers) said he is concerned that adding flood peril may have issues on removing the double counting in the R5 component, as flood can be caused by multiple perils. Nancy Watkins (Milliman) recommended that the Subgroup consider reviewing the Alabama Department of Insurance (DOI) Private Flood Insurance Survey as a good starting point.

2. Discussed the Independent Model Review Instructions in Rcat

Mr. Chou said last year, the Subgroup discussed three different kinds of catastrophe models that deviate from the vendor models: 1) internal catastrophe models; 2) vendor catastrophe models with adjustments or different weight; and 3) derivative models based on the vendor models. He stated that the industry provided some valuable information during the discussion, such as recommending that Subgroup: 1) consider developing a basic approval process if the Subgroup decides to rely on models in order to ensure the use of models are consistent and comparable across companies; and 2) review the RBC instructions, as it clearly indicated that a company should use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. He said he believes adding this charge of reviewing the PR002 and PR027 instructions and blanks to the ad hoc group is worth considering, as both items are related to the model review process. He also

stated that this is just a continued improvement of the RBC instructions and blanks; this is a high priority for the Subgroup, and it will be reflected in the Subgroup's working agenda soon. Matthew T. Wulf (Swiss Re) said Swiss Re and its domiciliary state will continue working with the Subgroup on this item in the future. Mr. Blanchard said Travelers will continue supporting the idea of treating adjustments to the vendor models differently from the totally separate models.

3. Discussed the Issue of Double Counting in the R5 Component

Mr. Chou said the current RBC formula PR100 through PR122 require insurers to provide actual catastrophe losses incurred separately by Annual Statement Line of Business for each of the last 10 accident years. The purpose of requiring the reporting of actual catastrophe losses is to avoid double counting catastrophe losses in the formula. Mr. Chou stated that the catastrophe risk element of the RBC formula is based on the results of catastrophe models run by the insurer. The existing R5 industry factors are derived from industry total loss data, which includes actual catastrophe losses, so it is necessary to study these actual catastrophe losses to avoid the double counting that would otherwise take place. Mr. Chou asked the industry to review the current methodology and provide comments in the next meeting.

4. Discussed Other Matters

Mr. Chou said proposal 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only) was exposed for a 60-day public comment period ending Feb. 13. He encouraged all the interested parties to review the materials and submit comments for discussion in the upcoming meeting.

Lastly, Mr. Chou said he is pleased to announce the appointment of Ms. Smosna as co-chair of the Subgroup. He said he will work closely with Ms. Smosna to ensure the Subgroup completes all its charges successfully in the future.

Mr. Chou said the Subgroup will continue discussing all the outstanding issues in the meeting next month.

Having no further business, the Catastrophe Risk (E) Subgroup adjourned.

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Draft: 1/24/21

Catastrophe Risk (E) Subgroup
Virtual Meeting
December 16, 2021

The Catastrophe Risk (E) Subgroup of the Property and Casualty Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Dec. 16, 2021. The following Subgroup members participated: Wanchin Chou, Chair, and Amy Waldhauer (CT); Laura Clements and Giovanni Muzzarelli (CA); Judy Mottar (IL); Gordon Hay (NE); Halina Smosna (NY); Tom Botsko and Dale Bruggeman (OH); Andrew Schallhorn (OK); Will Davis (SC); and Miriam Fisk and Monica Avila (TX).

1. Adopted Proposal 2021-15-CR (Adding KCC Models)

Mr. Chou said the Florida Commission on Hurricane Loss Projection Methodology (FCHLPM) reviewed and verified the Karen Clark & Company (KCC) hurricane model on June 19, 2019, and June 4, 2021. The Subgroup believed the KCC models seem to qualify under the same standards as the other modeling firms have for earthquakes and hurricanes. Mr. Chou said a proposal was created to include the KCC earthquake and hurricane models as one of the NAIC approved third-party commercial vendor models to calculate the catastrophe risk charge, which was exposed for a 30-day public comment period. He also stated that the Subgroup received one comment letter during the exposure period. Glen Daraskevich (KCC) said the KCC supports the proposed update to the list of NAIC-approved catastrophe models and appreciates the Subgroup's goal of keeping the list current with market usage.

Mr. Botsko made a motion, seconded by Ms. Mottar, to adopt proposal 2021-15-CR. The motion passed unanimously.

2. Heard an Update from its Catastrophe Model Technical Review Ad Hoc Group

Mr. Chou said the ad hoc group met Dec. 6 to discuss the survey questions created by the members within the group, which was based on *Actuarial Standard of Practice (ASOP) No. 38—Catastrophe Modeling (for All Practice Areas)*. He said the survey results indicated that the ad hoc group gained a better understanding on different aspects of different models during a series of question and answer sections.

Ms. Smosna stated that the ad hoc group reviewed the technical documentation provided by three vendors: Risk Management Solutions (RMS), AIR, and KCC. Also, the ad hoc group posed questions to each noted vendor and had several follow up discussions with them separately. Ms. Smosna said the ad hoc group also acknowledged that although these are the best tools available to assess wildfire risk, limitations exist. A notable limitation across all three vendors includes the data vintage. In addition, Ms. Smosna indicated that the ad hoc group noted that although the key vendors are subject matter experts (SMEs), this does not negate the fact that wildfire models are in their infancy. Moreover, she said the ad hoc group comfortably stated that the vendors are experts and have dedicated huge resources to wildfire modeling; but going further and being able to state that the level of capital required for wildfire exposure is adequate based upon the modeling is a conclusion that cannot be validated by the ad hoc group. She concluded that at this point, the ad hoc group members only have a basic understanding of each vendor model and are reasonably familiar with the major model components and how those components interrelate.

Mr. Chou said the issue of the wildfire-prone areas was also discussed during the meeting. He stated that identifying the potential wildfire-prone areas will provide better determination of exemption from the wildfire charge. In addition, he provided a brief overview on the wildfire structure to the ad hoc group. He said the

structure will be included in the 2022 risk-based capital (RBC) formula just for informational purposes only. He also stated that the structure will not go live until all the outstanding issues are resolved. Lastly, he said the ad hoc group will not meet until the Subgroup starts reviewing the next peril.

3. Exposed Proposal 2021-17-CR (Adding Wildfire Peril for Informational Purposes Only)

Mr. Chou said while the Subgroup reviewed the possibility of expanding the current catastrophe framework to include other perils that may experience a greater tail risk under projected climate-related trends, the wildfire has been identified as one of the major drivers of the U.S. insured losses. He suggested that setting up a proposal to include wildfire peril in the Rcat component for informational purposes only to address this risk is necessary. He also indicated that the wildfire peril will not be included in the RBC calculation until all the outstanding issues are resolved. Lastly, he urged all the interested parties to review the proposal and provide comments during the exposure period.

Mr. Botsko expressed the Subgroup's appreciation to the ad hoc group for its efforts in reviewing the wildfire models. Ralph Blanchard (Travelers) proposed to include Florida in the wildfire-prone areas. Steve Broadie (American Property Casualty Insurance Association—APCIA), Scott Williamson (Reinsurance Association of America—RAA), and Matthew Wulf (Swiss Re) requested to extend the 30-day exposure to 60 days due to the holiday season and the need for more time to review.

The Subgroup agreed to expose proposal 2021-17-CR for a 60-day public comment period ending Feb. 13.

Mr. Chou said the Subgroup will continue discussing all the outstanding issues in the meeting next month.

Having no further business, the Catastrophe Risk (E) Subgroup adjourned.

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Hi Wanchin and Eva,

We note that agenda item 2 of Tuesday's call is on the RCAT independent model review instructions. Since the Missouri Department of Commerce and Insurance (DCI) has used these instructions to review an internal catastrophe model, we would like to offer the subgroup our comments.

Background on the DCI's review

On April 7, 2017, the Catastrophe Risk Subgroup granted permission for Swiss Re to use its internal model for year-end 2017 RCAT reporting. For subsequent year-ends, this permission came from the Missouri DCI.

In order to grant Swiss Re initial permission for year-end 2018 reporting, the DCI performed an in-depth review of the company's model, centered around the seven requirements in the RCAT instructions. We relied on written information from the company, phone calls with the company, and in-person meetings with the company and the group-wide supervisor. Our review was informative and valuable. It was also extremely time-consuming for the DCI (and, I assume, for the company as well). Performing a thorough review based on the requirements in the RCAT instructions could be difficult for small insurance departments with limited technical staff.

As mentioned above, the DCI performed an in-depth review in 2018. For subsequent year-ends, our review has been much more high-level and has focused on any follow-up items from the previous year. While the RCAT instructions indicate that ongoing review should happen through the exam process, this may be too infrequent in some cases, especially since the company could be asked to re-file prior RBC reports if the regulator identifies a concern. Companies large enough to use their own model are probably only examined every five years. The DCI would prefer to perform an annual review and remain updated on any changes to the model. This seems particularly important as more perils are added to the RCAT charge.

Our comments on the seven items in the RCAT instructions

Taken as a whole, the seven requested items in the RCAT instructions seem reasonable. Gathering information on these items allowed for a thorough review and made the DCI comfortable granting permission for Swiss Re to use its model.

We offer the following comments on several of the items:

1. Regarding item 3:
 - a. We do not know what it means to validate a peril or for perils to include both U.S. and global exposures. We raised these concerns in 2017 before the instructions were finalized. In order to attempt to comply with this item, we interpreted it as we saw reasonable. Namely, we checked that:
 - i. If the insurer has exposure to the perils covered by the RBC catastrophe risk charge (earthquake and hurricane), those perils are contemplated in the RBC charge, and
 - ii. The insurer is including both U.S. and non-U.S. exposures in the RBC charge.
 - b. Whether or not our interpretation is correct, we recommend rewording this item to make the subgroup's intention clear.

2. Regarding item 6:
 - a. It appears that complying with this item is challenging for several reasons:

- i. If an insurer has been relying on its internal model for many years, it may not maintain a license for a vendor model.
 - ii. If an insurer aggregates losses, instead of exposures, across accounts, it may not be able to produce a portfolio of exposures for input into a vendor model.
 - iii. It can be difficult, if not impossible, to identify drivers of differences between an internal model and a vendor model. First, the models are extremely complex, relying on numerous modules and impacted by various assumptions within those modules. Second, vendor model licenses often prohibit “back engineering” of the model’s parameterizations, so the company may not have full insight into the model’s assumptions.
 - b. Given these difficulties, would it be possible to add alternative methods of comparison to the RCAT instructions? We have found it helpful to review a comparison of internal model estimates to actual results for historical events.
3. Regarding item 7: We experienced difficulty in receiving written documentation from the group-wide supervisor.

Thank you for allowing us to share our experiences with the RCAT instructions.

Sincerely,

Julie

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3/28/22

Draft: 4/4/22

Risk-Based Capital Investment Risk and Evaluation (E) Working Group
Virtual Meeting (*in lieu of meeting at the 2022 Spring National Meeting*)
March 22, 2022

The Risk-Based Capital Investment Risk and Evaluation (E) Working Group of the Capital Adequacy (E) Task Force met March 22, 2022. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy (CA); Wanchin Chou (CT); Ray Spudeck (FL); Carrie Mears (IA); Vincent Tsang (IL); Fred Andersen (MN); William Leung and Debbie Doggett (MO); Lindsay Crawford (NE); Bill Carmello and Bob Kasinow (NY); Dale Bruggeman and Tom Botsko (OH); Mike Boerner (TX); Steve Drutz and Tim Hays (WA); and Amy Malm (WI).

1. Adopted its Feb. 28 Minutes

The Working Group met Feb. 28. During this meeting, the Working Group took the following action: 1) discussed overall charges and the Financial Condition (E) Committee's direction; 2) heard a preliminary investment overview and member perspectives; and 3) received comments from an initial request related to risk-based capital (RBC) treatment for asset-backed securities (ABS).

Mr. Spudeck made a motion, seconded by Mr. Chou, to adopt the Working Group's Feb. 28 minutes (Attachment Six-A). The motion passed unanimously.

2. Discussed Comments Received

a. American Council of Life Insurers

Paul Graham (American Council of Life Insurers—ACLI) presented the ACLI's comment letter (Attachment Six-B). He noted the significant complexity involved in developing RBC for ABS. He noted the determination of associated risks (i.e., loss given default, timing, and others) will be different from commercial bonds. He said collateralized loan obligations (CLOs) might be able to be mapped to current bond factors using what has been learned from commercial mortgage-backed securities (CMBS) and residential mortgage-backed securities (RMBS) modeling. He suggested addressing CLOs first with other ABS to follow. He noted that RBC has historically followed the rule of rough justice and underscored the fact that the purpose of RBC is to identify weakly capitalized companies. He noted the ACLI's suggestion that a technical resource group could be formed to help get the project started, defining scope, risks to study, and how this work fits within the RBC framework.

b. Bridgeway Analytics

Amnon Levy (Bridgeway Analytics) presented Bridgeway Analytics' comments (Attachment Six-C). He indicated support for the comments by Mr. Graham and the ACLI on a phased approach, allowing for coordination with the related review of nationally recognized statistical rating organizations (NRSROs) use in Securities Valuation Office (SVO) designations and acknowledging the complexity of the issues involved. He highlighted the need for the framework to be consistent with its use and measurement of differentiated risk measures, including that of a single credit investment (e.g., a rating and thus designation), and a portfolio loss concept that considers diversification and concentration (e.g., c1 factors). With respect to the RBC framework and providing state insurance regulators better tools to identify weakly capitalized companies and align investment incentives, he highlighted the need for ongoing monitoring of tail risks that can change materially from year to year with varying

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risk factors and to a varying degree across RMBS, CMBS, CLOs, and other structured assets. He also noted risks that are not captured by ratings, and thus NAIC designations. He said the approach should be sensitive to volatility and cyclical fluctuations. He stated that the data on ratings, and thus NAIC designations, that are fundamental to C-1 RBC are particularly sparse for structured assets. By and large, NRSRO methodologies were modified substantially after the financial crisis, with few credit events since. With data on collateral experience generally more robust than tranche experience, Mr. Levy said Bridgeway Analytics believes reliance on model-based approaches can better capture nuanced and varying characteristics across structured asset segments.

c. Risk & Regulatory Consulting

Ed Toy (Risk & Regulatory Consulting—RRC) presented RRC's comments (Attachment Six-D). He said the RBC framework was originally intended as a regulatory tool to be able to see weakly capitalized companies, and the framework was not intended to be granular or very detailed. However, he stated that investment vehicles owned by insurers have grown more varied and investment practices more complex. With this consideration, he said some degree of increased detail may be warranted to avoid regulatory arbitrage. He said a big step was already completed with the increased granularity of NAIC bond designations, as that eliminated the inappropriate incentive to race to the bottom with investments with BBB-minus designations and the disincentive to lean towards BBB-plus bonds.

Mr. Toy stated support for the review of the RBC framework to ensure that complex assets have RBC charges that are commensurate with the risk. He said structured securities are one of the investments where additional attention may be appropriate, but he encouraged the Working Group to think holistically and consider the broader themes mentioned by Mr. Graham. Mr. Toy stated that there are different kinds of risk and that tail risk is potentially different for different assets. While tail risk includes differences in volatility for default risk, he said the major issue is differences in loss severity. He stated that higher-level classes of structured securities are not perceived to be a material area of concern, and the primary issue is with subordinate classes. As such, understanding the industry exposure to subordinate classes of structured securities and how the characteristics of these investments compare with other asset classes that are also potentially concerning may be beneficial. Mr. Toy provided examples of collateral loans, which have a flat RBC factor for life entities and construction mortgage loans as two asset classes that have also had significant growth. Looking at asset classes with high tail risk, he also inquired about the assessment of asset classes that have materially less tail risk, such as government bonds. He said focusing on particular asset classes with specific risks without having a holistic discussion may create imbalances in the formula.

Mr. Toy stated that understanding the focus of tail risk is also a key element. If the focus is loss severity, then the question that should be addressed is how loss severity translates into a risk of loss to surplus, which is the main issue for RBC. He stated that if an insurer owns an investment at significant discount to par, then the risk of loss to surplus may be different from another insurer that owns the same investment at par.

Mr. Toy said the overall discussion should begin with representatives of the American Academy of Actuaries (Academy), and if there is a need to focus on specific areas, then engaging a consulting actuary may make sense.

Mr. Toy also addressed the specific question of residuals, which is a subcategory of structured securities. He stated that as classes are the bottom supporting tranche in a capital structure, then treatment as equity makes sense. With regard to Mr. Toy's question regarding the reporting of residuals, Mr. Bruggeman said there are two proposals being considered for adoption at the Blanks (E) Working Group. These proposals will require classification of residuals on Schedule BA and asset valuation reserve (AVR) based on underlying characteristics.

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The proposals mirror existing underlying classifications as fixed income, common stock, real estate, mortgage loans, and other. Mr. Toy commented that more granular classifications, particularly for the common stock category, may be warranted, providing an example of differences between publicly traded and private common stock investments. He stated having the same factor for the various stock or equity backed assets highlights the point of focusing on underlying risks.

d. FLOIR

Mr. Spudeck presented comments (Attachment Six-E) from the Florida Office of Insurance Regulation (FLOIR). He said with the progression and innovation towards more complicated investments, this is an opportunity to dig into the use of NAIC designations, as well as the classification of assets. He stated that the focus should be on the risk to surplus and ultimately the risk to policyholders or the insurer's capital position. He stated that this project is likely going to be a long process but one that is overdue. Mr. Spudeck stated that it may be appropriate to start with current asset exposures, but he said current exposures should not drive the work as that prevents considering issues or exposures that are currently being designed or developed until they have permeated the industry. He said waiting for items to be widespread makes it more difficult for the regulatory community to craft a nimble, agile, and efficient response to get the asset class reflected to where it should have been in the first place.

3. Adopted its Working Agenda

Mr. Barlow presented the Working Group's working agenda and said it includes items referred from the Financial Condition (E) Committee and prior referrals to the Capital Adequacy (E) Task Force that focused on investments. He said the referrals from the Committee, as they include timelines, are recommended to be addressed first. However, to be consistent with many of the comments made, he said he recommends a holistic review as an overall approach.

Mr. Drutz made a motion, seconded by Mr. Botsko, to adopt the Working Group's working agenda (Attachment Six-F).

4. Discussed its Next Steps

Mr. Barlow said the Working Group will begin with a review of the projects requested from the Committee. He stated support for a holistic review and supported Mr. Spudeck's comment to review the role of NAIC designations and how assets are classified as part of this process. He said it would be key to identify the risks of asset classes and the impact on the solvency of insurance companies. He stated support for a process that allows consideration of new assets as they come into insurance company portfolios. He said it would be ideal if the revised process would prevent application of RBC factors based on an NAIC designation or asset classification that is ultimately not appropriate for the asset's risk. He echoed the comments from Mr. Graham that it will not be possible to be perfect, but the goal is to have reasonable charges that are not too high or too low based on the risk of the asset. He stated that the process will be complicated, and that the assessment needs to consider the overall impact to the financial statements, reserves, and overall capital and surplus of insurance companies to be in line with the goal of RBC to identify weakly capitalized companies, or to identify actions that move companies towards being weakly capitalized.

Mr. Tsang asked about the percentage of these complex assets currently owned by insurance companies. Mr. Barlow stated that there is work being done to better determine how these assets are identified in the financial statements. He stated that improving consistency in the financial statements is key, as similar types of

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assets may be reported differently. Charles Therriault (NAIC) stated that the Working Group does not have an exact number, but he will further inquire with the Capital Markets Bureau. He stated that reporting consistency is one of the challenges, as reporting is inconsistent, and it is not always clear that the reported asset is a structured or complex security. He stated that these investments are often mixed in with other corporate bonds in the reporting structure.

Mr. Tsang asked whether it was feasible to apply a factor to these securities and whether some form of simulation analysis to evaluate the risk of these assets would be more appropriate. He said a structured security is not like a corporate bond, and it will be difficult to determine an appropriate factor when there are many variants among the different types of structures. Mr. Barlow stated that this is a good point, but his preference would be to try to determine a methodology to apply a factor. He said this process could result with use of current factors or could result with the creation of a whole new set of factors, but he would like to see if that is possible before moving to something more complicated, particularly as the magnitude of these investments is still uncertain. He said developing a complicated methodology for a limited number of assets would not be relevant in identifying weakly capitalized companies. Mr. Therriault said they will work to develop an assessment of exposure. He said the structured security group would also be well positioned to model these types of transactions and assess risks.

Mr. Tsang stated that another working group is also monitoring these structured securities for cash-flow testing. He asked whether the actions of that group, particularly if it puts a cap on structured assets for cash-flow testing, would affect the consideration of this Working Group. He stated that he would not want a revised factor from this Working Group and an updated actuarial guideline from another group to impede each other. Mr. Barlow stated that it is important to coordinate with the Statutory Accounting Principles (E) Working Group, the Valuation of Securities (E) Task Force, and the work that is being done to the reserves and how it might ultimately affect the solvency of an insurance company. He said this Working Group has representatives from a variety of groups to make sure that the right people are involved and that the discussions include all relevant information.

Mr. Barlow said the next steps would be the development of recommendations with suggestions on moving forward. As to whether it would be beneficial to have small subgroups focusing on specific areas, he said he would like to begin working at the full Working Group level, and if projects became too cumbersome, then perhaps small groups could be considered. Mr. Carmello, Ms. Mears, and Mr. Boerner all stated agreement with keeping the discussion initially within the full Working Group in developing recommendations. Mr. Barlow said specific agendas for key topics will be developed to allow progress through a project plan. He said he does not think the Working Group is at the point where a consultant would be beneficial, so he recommends putting that consideration aside for the time being. He said as the Working Group moves forward, there may be a better understanding of the services and assistance a consultant could provide. Mr. Wanchin agreed with future consideration of a consultant after the Working Group can define the scope of the project and determine the experts who can help achieve specific goals. Mr. Spudeck agreed, noting that it would be more efficient to first determine the information needed prior to engaging a consultant. John DuBois (MassMutual) suggested that framing the project by determining the size of the different asset classes may assist the next discussion. Mr. Barlow said the Working Group should expect meetings to be scheduled after the Spring National Meeting with specific agendas and goals noted for each meeting.

5. Discussed Other Matters

James Braue (United Health Group) asked whether this Working Group would also be considering parallel treatment to the AVR for the asset classes that are being considered for revised RBC. Mr. Barlow stated that this would occur on the life side.

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Julie Gann (NAIC) said the Blanks Working Group (E) is scheduled to meet March 29, and two proposals up for adoption related to residual reporting on Schedule BA and AVR are available on the Working Group's website.

Having no further business, the Risk-Based Capital Investment Risk and Evaluation (E) Working Group adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/2022 Spring National Meeting/RBCIREWG 3-22-22 Minutes.docx

Draft: 3/11/22

Risk-Based Capital (RBC) Investment Risk and Evaluation (E) Working Group
Virtual Meeting
February 28, 2022

The RBC Investment Risk and Evaluation (E) Working Group of the Capital Adequacy (E) Task Force met Feb. 28, 2022. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy (CA); Wanchin Chou (CT); Ray Spudeck (FL); Carrie Mears (IA); Vincent Tsang (IL); Fred Andersen (MN); William Leung and Debbie Doggett (MO); Lindsay Crawford (NE); Bill Carmello (NY); Tom Botsko (OH); Mike Boerner and Rachel Hemphill (TX); Steve Drutz and Tim Hays (WA); and Amy Malm (WI).

1. Discussed its Formation, its Charges, and Financial Condition (E) Committee Direction

Mr. Barlow introduced the call and referred to a memorandum from Mr. Botsko, chair of the Capital Adequacy (E) Task Force, to the Financial Condition (E) Committee requesting the formation of the Working Group. Mr. Botsko stated that the formation of the Working Group was primarily for the evaluation of investments and risk from an RBC perspective, and the Committee was supportive of the formation. Mr. Barlow summarized the Working Group's initial charges: 1) identifying and acknowledging uses of RBC beyond the purpose of the *Risk-Based Capital (RBC) for Insurers Model Act* (#312); 2) assessing the impact of potential changes in contributing to the identification of weakly capitalized companies; and 3) documenting the modifications made over time to the formulas. He stated that during an initial Jan. 12 joint call of the Working Group with the Committee, the Committee provided direction on two projects: 1) consider a second phase of the bond factors; and 2) review residual tranches for RBC. He stated that the requested work of the Committee could be completed with the scope of the Working Group charges, and he identified that the Working Group will likely have extensive coordination with the Statutory Accounting Principles (E) Working Group, the Valuation of Securities (E) Task Force, as well as other groups, while completing a comprehensive review of the investment component of the RBC calculation.

2. Discussed Desired Outcomes

Ms. Mears, chair of the Valuation of Securities (E) Task Force and vice chair of the Statutory Accounting Principles (E) Working Group, provided viewpoints on behalf of both groups, as Dale Bruggeman (OH), chair of the Statutory Accounting Principles (E) Working Group, was unable to attend. She stated that the bond project of the Statutory Accounting Principles (E) Working Group came about as state insurance regulators identified a shift in insurer portfolios from traditional bond holdings to more structured products. She identified that the accounting framework did not contemplate the type of collateral that could be held under these innovative products. She stated that the bond project initially began with a focus on equity investments that could be securitized, resulting in movement from Schedule BA: Other Invested Assets to Schedule D-1: Long-Term Bonds, but the project ultimately became a holistic review of Schedule D-1 and the principal concepts in classifying investments as bonds. She stated that the desire to have similar focuses on these types of investments at the Task Force and the RBC Investment Risk and Evaluation (E) Working Group to ensure that the ratings and capital framework continues to be appropriate for these types of investments.

Ms. Mears noted that a specific concern from a Statutory Accounting Principles (E) Working Group perspective occurs when an insurer holds an "entire stack" from a securitization, which is basically akin to continued holdings of the entire pool or portfolio of underlying collateral, and this concern is more prevalent when the collateral is equity-based. She provided an example of a collateralized fund obligation (CFO) where equity funds were held on Schedule BA with a 30% RBC charge but then went through a securitization process in which higher-level tranches were moved to Schedule D-1, resulting in much less RBC charges, and the remaining residual tranches were

retained on Schedule BA. In this scenario, the economics and overall risk are not different from the insurer holding the entire investment on Schedule BA, but with the securitization and the ability to divide the holdings between Schedule D-1 and BA, the insurer RBC position is significantly different. Ms. Mears noted that an original proposal as part of the bond project tried to address this issue; however, it was quickly identified that this dynamic is not an accounting issue but pertains to risk assessment and ultimately RBC concepts. As such, there is a desire for the Working Group to address this as part of the residual tranche review. Ms. Mears stated that this residual review would be applicable to all securitizations but would be most impactful to CFO investments. She stated that the risk assessment may also be easier for residuals of a collateralized loan obligation (CLO), which have underlying collateral that is rated and may be more difficult for other structures that have underlying collateral that is not rated or does not fit within the existing RBC framework. She proposed moving forward with structural changes in the calculation, with subsequent edits to reflect the determined factors.

Ms. Mears then presented comments from the Valuation of Securities (E) Task Force, noting that there is a clear connection for some investments between the reported designations and resulting RBC factors. She stated that the Task Force has a project this year to undertake a review on how it uses credit rating providers (CRPs) and assess the types of risks that are encompassed within ratings from the various CRPs to ensure an understanding of the differences between CRPs. She stated that understanding the risks that are reflected in the CRP ratings, which translate to NAIC designations, will correspond to the Working Group in understanding the factors that should be considered in response to those designations. She stated that extensive collaboration of the impacted groups is paramount in ensuring that an appropriate overall statutory framework encompassing accounting, designations, and RBC is in place for all investments, but particularly for securitizations.

Mr. Barlow stated that the comments of Ms. Mears align with his perceptions for the Working Group. He stated that the Working Group should first focus on setting RBC charges that correlate with the risk insurers are undertaking and ensure that the risk the RBC is addressing is commonly understood. He said he believes this is in line with the Ms. Mears' comments on understanding what is represented with CRP ratings and NAIC designations. He stated that he has been adherent to the concept that RBC is intended to identify weakly capitalized companies, and that has driven historical work of the Life Risk-Based Capital (E) Working Group; however, the work of the RBC Investment Risk and Evaluation (E) Working Group will not necessarily be focused on the work to identify weakly capitalized companies. Instead, the Working Group is likely going to be focusing on a more granular breakdown of investment risk. Although not focusing on weakly capitalized companies, this approach will add clarity and guidance for the other purposes in which RBC is used by insurance companies in making investment decisions. Mr. Barlow stated that the intent is to make RBC a non-factor in determining insurer investment decisions, as each investment will have a charge aligned with the investment risk. He stated that there are differences in the life, property/casualty (P/C), and health formulas, and the Working Group should assess whether the work being completed should be identical in all three formulas or if circumstances exist that support different formulas. He noted that representatives from the various RBC groups are participating in the Working Group, so this assessment will be completed as part of the process.

Mr. Barlow stated that he would like the Working Group to work holistically with its projects and ultimately have a broad methodology that will also address new assets and can be regularly updated with asset factors. He stated that the historical use of the RBC formula attempted to pull information from the financial statements; therefore, two identical companies would have similar RBC. This approach did not allow subjectivity into the RBC formula. Mr. Barlow stated that with changes in investments, two companies could seemingly look the same, but the underlying components of the investments could be different, and the RBC formula may have not been adjusted to reflect this dynamic. He stated that it would be ideal to be as objective as possible with the identification of investment risk, so that with sufficient information in the financial statement, investments can be categorized to ensure appropriate treatment for RBC formula purposes. He also stated that having a clear understanding of the designations, as well as the risk they represent, will also assist in calculating RBC factors that recognize the way

the assets are rated. Although this may not be a short-term result, it would be a goal for the Working Group, particularly with the path of developing a framework that will be appropriate in categorizing new assets and investment structures. Mr. Barlow stated that the RBC groups have historically been reactive to the decisions from other groups in the reporting of investments, and he would suggest developing a framework that can address current and future investments.

Mr. Botsko, representing the chair of the Capital Adequacy (E) Task Force and the Property and Casualty Risk-Based Capital (E) Working Group, affirmed the comments of Mr. Barlow, noting that the groups need to work together in determining an appropriate framework that allows for correct RBC charges. He stated that working together will allow a more efficient outcome for industry. Mr. Drutz, representing the chair of the Health Risk-Based Capital (E) Working Group, confirmed the comments of both Mr. Barlow and Mr. Botsko. Ms. Mears also agreed and encouraged participation of industry and state insurance regulators across the different groups. Mr. Barlow agreed and stated that the RBC Investment Risk and Evaluation (E) Working Group should assist with the coordination effort between the different groups.

Mr. Barlow stated that an exposure on Jan. 12 by the Financial Condition (E) Committee directed comments to the Working Group. The deadline for those comments is Feb. 28, and a specific call will occur to consider the comments from that exposure.

3. Received a Presentation on the High-Level Overview of Investment Development

Charles Therriault (NAIC) presented a summary of structured finance securities on behalf of NAIC Investment Analysis Office (IAO) staff. In principle, securitization is a simple concept involving the legal isolations of assets in a bankruptcy remote entity for the purpose of either collateralizing or generating cash flows sufficient to issue a debt security from the bankruptcy remote entity. However, since its inception in the late 1960s, securitization has evolved to become a tool to finance or monetize just about any asset imaginable.

Mr. Therriault stated that there is a very broad range of structured finance securities that may or may not be divided into different classes called tranches. The only real common theme is the legal isolation of assets in a bankruptcy remote entity. Beyond that, structured finance securities have no uniformity as to the nature of the assets, cash flow generation, classes or tranches, payments to the investor, or method of repaying the principal at maturity. The structures include asset backed securities (ABS), mortgage-backed securities, residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), collateralized debt obligations (CDOs), collateralized loan obligations (CLOs), insurance-linked risk transfer securities, future flow securitizations, credit tenant lease financing, ground lease financing, military housing administration fee securitization, and whole business securitization, along with many other names. Mr. Therriault stated that the underlying assets can be any asset such as mortgages, credit card receivables, commercial loans, home equity loans, student loans, equipment and property leases, movie revenues, royalty payments, aircraft landing slots, toll roads, or oil reserves, as just about any cash-producing vehicle or situation can be securitized.

Mr. Therriault stated that ratings play an important role in structured finance, as most of these securities are filing exempt (FE), meaning ratings are used to assign an NAIC designation. There is no universal standard for assessing their risk or any consistency in the methodologies across credit rating agencies to provide a uniform credit rating or risk assessment. The performance of structured finance has also varied across the asset class and types. The IAO raised the issue regarding the reliance upon CRP ratings and the lack of oversight as to the analytical basis for those ratings to the Valuation of Securities (E) Task Force in its Nov. 29, 2021, memo. The greater risk assessment variation rewards risk-taking without the commensurate RBC. Mr. Therriault stated that there can be potentially significant distortions of an insurer's RBC ratio if the underlying rating used to set an NAIC designation is not derived in a manner that is comparable to or consistent with the risk assessment used in determining those RBC

factors. Ratings are not interchangeable, and IAO staff believe the NAIC's use of them in its regulatory processes needs to reflect those differences efficiently and effectively.

4. Discussed Investment Reporting Perspectives

Ms. Mears stated that the Statutory Accounting Principles (E) Working Group and the Valuation of Securities (E) Task Force, as part of the bond project and investment analysis, will be making reporting changes. As such, if there are data points or analysis requests from the RBC Investment Risk and Evaluation (E) Working Group, those can be considered as part of the reporting changes being considered under the bond project. Ms. Mears inquired about the RBC structural change deadlines, stating a preference to have the structural changes in place as soon as possible for residual tranches so the framework is in place for potential factor changes. Mr. Barlow stated that structural changes need to be exposed by the end of January and adopted by the end of April. For instructional changes, which includes changing factors in the existing structure, those changes need to be exposed by April 30 and adopted by June 30. Mr. Barlow stated that in the past, the Life Risk-Based Capital (E) Working Group has incorporated structural changes in advance of factor changes to allow the deadlines to be met. He stated a presumption that such an approach has also been followed by the other RBC working groups. He stated that the intent for a more objective approach may consider differences in the schedule—i.e., grouping items together—or capture more identifiers for assets, allowing RBC to use the identifiers to better apply factors. He stated that this may be more feasible than increasing the schedules in the annual statement. Ms. Mears noted that these comments are helpful and beneficial, as the reporting changes are considered as part of the bond project. She stated that significant reporting revisions are anticipated, particularly to Schedule D-1 as part of the bond project.

Ralph Blanchard (Travelers) stated that he has historically looked to determine bond default rates by classification, and it was difficult to do so, as the reporting schedules have changed frequently over the years. He requested that the new structure be designed so it can be retained over time so that future analysis on bond classifications would be easier to complete. He stated that this detail was not in the investment schedule but supplemental data, but the format has changed over the years, so it was difficult to track. Julie Gann (NAIC) stated that she is not familiar with the location in the financial statements that captured bond defaults, but she said she would research this information and see what has changed from a historical perspective.

5. Discussed Other Matters

Mr. Barlow identified that Ms. Gann developed a chart of the pending investment-related referrals previously provided to the Capital Adequacy (E) Task Force or RBC working groups. He stated that some of the referrals were deferred for the bond factor proposal. Included within the chart are the two projects directed by the Financial Condition (E) Committee, which includes Phase II of the bond factors and residual interests. Mr. Barlow stated that these two projects will be addressed first, noting that they can be worked on concurrently. Next, the other projects on the chart would be prioritized by the Working Group, and additional investment-related referrals may be added to this list of projects. Mr. Barlow stated that the work on Phase II of the bond factors will begin first with a consideration of the comments received. He stated the intent to work holistically, so all projects should be reviewed with consideration of how assets are reported and how RBC factors are applied under the financial statement framework.

Having no further business, the RBC Investment Risk and Evaluation (E) Working Group adjourned.

[Att RBCIREWG 2-28-22 Minutes.docx](#)



Paul Graham
Senior Vice President, Policy Development
(202) 624-2164 t
paulgraham@acli.com

March 4, 2022

Philip Barlow, Chair
Risk-Based Capital Investment Risk and Evaluation (E) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

Re: Phase II Bond RBC Initiative for Structured Securities

Dear Philip:

ACLI appreciates the opportunity to provide comments on the NAIC's project to review the Risk-based Capital (RBC) treatment of Asset-backed Securities (ABS), including collateralized loan obligations (CLOs), collateralized fund obligations (CFOs), or other similar securities carrying similar types of tail risk. We note that these are preliminary comments on the project, rather than specific comments on any of the technical aspects of the RBC treatment of Asset-backed Securities.

Overview

ACLI agrees with the NAIC that review of the RBC treatment of structured securities is an important follow-up to the work done to develop new RBC factors for bonds. The Phase 1 bond factors were based on the review of default and loss experience of corporate bonds based on their rating, which might not be appropriate for structured securities.

We suggest that, due to the complexity of this project, it would be helpful once an initial path forward (e.g., defining project plan, scope, and writing RFP, if necessary) is decided, or also as part of those discussions, to assemble a representative working group of regulators, NAIC staff, and industry subject matter experts to help address technical elements, with full transparency for all interested parties. It also seems to reason that a significant amount of this technical work would need vetting more broadly at certain stages of development.

Our comments start with a possible outline of a project plan and then we provide our initial responses to the RFC questions.

American Council of Life Insurers | 101 Constitution Ave, NW, Suite 700 | Washington, DC 20001-2133

The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States.

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Suggested Outline of Project Plan

From a timing perspective, ACLI envisions that the project can be covered in two phases. Work on the two phases can be accomplished either sequentially or in parallel, with longer implementation for the second phase as it's more involved with more steps.

Phase 1

- Develop a modeling approach or other approach for CLOs and map to current C1 bond factors, potentially leveraging the existing NAIC modeling infrastructure for RMBS and CMBS; review rating agency methodologies.
- Apply a “no arbitrage” principle and evaluate equalization of RBC on the underlying (if available) and the securitization tranches through calibration and by allowing residual tranches to have a variable RBC based on measurable investment risk.
- The implementation plan for Phase 1 could be developed by year-end 2022 and may be less likely to need the assistance of a consultant.

Phase 2

- Assess mapping adequacy and consistency across modeled categories (RMBS, CMBS and CLOs).
- Implement refinements to modeling approaches to ensure appropriate assessment of tail risk.
- Develop a practical approach to map other ABS to current bond factors following the established principles from Phase 1 where the collateral has an assigned RBC. Define alternative approaches, e.g., bottoms-up underwriting, where collateral does not have a well-established RBC.
- Phase 2 is more complex – will likely take 2-3 years. Phase 2 likely requires hiring a consultant that could be engaged from time to time but is not a condition to implement partial solutions.

Project Timeframe

ACLI agrees that this project is a high priority. As noted above, the RBC charges for certain ABS structures, such as CLOs, may be completed relatively expediently, while other structures may take multiple years to complete. While we would expect that the RBC charges would be implemented as they are completed, care should be taken to determine the impact to industry before setting a specific implementation date.

Responses to Specific RFC Questions

Methodologies for capturing the risk (including tail risk) that exists with such assets (e.g., ratings-determined bond factors, a modeling process akin to the current CMBS/RMBS approach, or other proposals).

It is too early to suggest an exact methodology and this needs to be studied further. Structured securities do require a methodology that models collateral outcomes against the capital structure and cashflow waterfall of the security to derive loss projections for each tranche that are representative of the underlying collateral.

Risk modeling approaches for structured securities (beyond RMBS/CMBS) should be evaluated on the basis that they capture the tail risk of a skewed or heavy-tailed loss distribution (e.g., statistical approaches such as Conditional Tail Expectation (“CTE”) / TVaR / Expected Shortfall, scenario/stress testing, etc.).

How a consultant or consulting actuary could be used by the NAIC to determine the appropriate charge based upon certain data.

As exemplified during the Phase 1 RBC discussions, a consultant with capital markets expertise can add considerable value. Structured securities are significantly more complex than corporate bonds, reinforcing the need for this expertise. Once the scope of the project has been determined, the consultant could:

- Survey existing regulatory frameworks
- Provide initial modeling and calibration
- If needed, provide ongoing modeling and calibration

Given the technical complexity of structured securities, the ACLI recommends that the consultant coordinate closely with NAIC Structured Securities and Capital Markets Bureau to ensure a robust implementation of the developed recommendations.

The need for review outside of Life RBC (Health, P&C).

Since most insurance investments in structured securities reside in life insurance portfolios, the ACLI supports the initial focus being limited to Life RBC; however, it would be wise for the other two Working Groups to be kept apprised of the work done.

Whether residual tranches in ABS structures can be evaluated in conjunction with and under similar methodologies as the debt tranches.

The full structure, inclusive of all tranches, should be evaluated on a consistent methodological basis. For example, if the NAIC modeled all of the debt tranches of a particular CLO, the cashflow accruing to the residual is simply the difference between the cashflow accruing to the underlying collateral and the cashflow accruing to the sum of the debt tranches.

Specific proposals for addressing RBC treatment of residual tranches to reduce arbitrage incentives.

As a general principle, the level of capital held for all securitized tranches including the residual should generally be consistent with the capital held for the underlying collateral (where specific NAIC capital methodologies are available for such underlying collateral), recognizing retained exposures, diversification within the collateral pool and other relevant attributes, inclusive of any structural enhancements that improve economic outcomes for investors. Modeling of the full waterfall structure would permit the NAIC to perform ongoing checks to ensure that capital arbitrage incentives are minimized.

The ACLI looks forward to working with the NAIC on this project.

Sincerely,


Paul S. Graham, III, FSA, MAAA

cc: Commissioner Scott White, Chair, Financial Condition (E) Committee



Amnon Levy
Chief Executive Officer, Bridgeway Analytics
Amnon.Levy@BridgewayAnalytics.com
www.BridgewayAnalytics.com

February 28, 2022
Mr. Philip Barlow
Chair
NAIC Risk-Based Capital Investment Risk and Evaluation Working Group
Sent via email: JBarr@naic.org

RE: RBC treatment of asset backed securities

Dear Philip:

Bridgeway Analytics appreciates the opportunity to provide comments on RBC treatment of asset backed securities. Bridgeway Analytics encourages the NAIC and regulators to explore potential differentiated capital charges across credit segments, and in particular the treatment of structured assets, particularly for Life RBC. When redesigning the 2021 c1 factors, the reports I provided to the NAIC Life Risk-Based Capital Working Group on behalf of the ACLI highlighted the material differentiated risks, including tail risks, across asset classes that are not differentiated by NRSRO ratings alone and thus NAIC designations.^{1,2}

With the 2021 reports providing details regarding our views on data and methodologies, our comments in this letter are more general. There are a wide range of approaches that can revise the RBC framework to provide regulators with tools to better identify weakly capitalized companies, and better align investment incentives. With that context, we feel it is critical for the RBC framework to have the following characteristics:

- Parsimony, scalability, and consistency, allowing for a holistic articulation of portfolio tail risk that aspires to be level-set across asset classes and over time. To the extent practical, the framework should be consistent with its use and measurement of differentiated risk measures, including that of a single credit investment (e.g., a rating and thus designation), tail loss of a single credit investment (which impacts loss given default), and a portfolio loss concept that considers diversification and concentration (e.g., c1 factors).
- Ongoing governance and monitoring of tail risks, that can change materially from year to year with varying risk factors and to a varying degree across RMBS, CMBS, CLO and other structured assets. Risks, that are not captured by ratings, and thus NAIC designations, alone.
- Data on ratings and thus NAIC designations, that are fundamental to c1 RBC, are particularly sparse for structured assets. By and large, NRSRO methodologies were modified substantially after the financial crisis, with few credit events since. With data on collateral experience generally more robust than tranche experience, we feel reliance on model-based approaches can better capture nuanced and varying characteristics across structured asset segments; characteristics that can have material implications for portfolio tail risks.

We raise these points to hopefully provide a level of transparency for the complexity and efforts that will be needed to address these important issues, as compared to, say, revising the c1 factors in 2021.

We appreciate the opportunity to comment on this exposure.

Sincerely,
Amnon Levy

¹ Assessment of the Proposed Revisions to the RBC C1 Bond Factors Prepared for the NAIC and ACLI

https://content.naic.org/sites/default/files/call_materials/Agenda%20%26%20Materials%20RBC%202-11-21.pdf

² Revisions to the RBC C1 Bond Factors Prepared for the NAIC and ACLI <https://content.naic.org/sites/default/files/inline-files/2021%20Revisions%20to%20the%20RBC%20C1%20Bond%20Factors%205-24.pdf>



Memo

To: Scott White, Chair, Financial Condition (E) Committee

Cc: Tom Botsko, Chair, Capital Adequacy (E) Task Force
Phil Barlow, Chair, Investment Risk and Evaluation (E) Working Group

From: Tricia Matson, Partner and Edward Toy, Director

Date: February 25, 2022

Subject: RRC comments for the exposure related to certain Complex Assets before the Investment Risk and Evaluation Working Group

Background

The Financial Condition (E) Committee (E Committee) exposed for comment a set of questions regarding the appropriate Risk-Based Capital (RBC) treatment of Asset-Backed Securities (ABS), including Collateralized Loan Obligations (CLO), collateralized fund obligations (CFOs), or other similar securities carrying similar types of tail risk (Complex Assets). RRC appreciates the opportunity to offer our comments. Should you have any questions, we would be glad to discuss our comments with you and the E Committee members.

RRC Comments

- We have the following general comments:
 - We applaud these efforts. We agree that the RBC framework should be reviewed to ensure that Complex Assets have RBC charges that are commensurate with the risk, in particular highly structured assets that may not have significant risk at moderately adverse levels but have a very significant potential for loss in tail scenarios.
 - We believe that it is important for the RBC recognize that different asset classes have different characteristics, in particular in terms of loss severity after a default occurs, but also in the pattern of defaults. For example, the loss severity and pattern of default loss can vary significantly among corporate bonds versus government bonds versus structured securities (RMBS, CMBS and ABS), as well as investments not on Schedule D such as mortgage loans. We believe that the regulators should carefully consider the issue of tail risk and how that should be treated across all asset classes.
- We have the following specific comments on individual items exposed:
 - Regarding methodologies for capturing the risk (including tail risk): Different measures of tail risk could be appropriately reflected in different RBC factors while continuing the current process for assigning NAIC Designations. However, given that the exposure is focused on loss severity, this should recognize that bonds that are held at a discount to par also have a different profile from the perspective of risk of loss to surplus. There is also a question of timing of that loss after a default event occurs, which may require a methodology that projects losses over a relatively long time horizon after the occurrence of the event. Use of a conditional tail expectation (which takes an average over the full tail events) rather than Value

at Risk (which looks at a specific point in the tail) may be more appropriate for Complex Assets since, for example, some may not have significant risk charges at a 95th percentile, but would have significant risk charges if the average of the highest 10% of risks were evaluated since it would capture deeper tail risk.

- Regarding use of a consultant: Since capturing tail risk may require more robust modeling approaches such as CTE, it could be helpful to the NAIC to engage a consulting actuary.
- Regarding the need for review outside of Life RBC (Health, P&C): If the E Committee decides that Risk-Based Capital factors should be adjusted to reflect different kinds of tail risk, we believe this should be applicable to the relevant assets and there should not be differences based on insurer type. Asset risk is specific to the asset. That is not to say that investment practices are not different across insurer types, but that is more appropriately adjusted for in the way that the overall RBC formulae work.
- Whether residual tranches in ABS structures can be evaluated in conjunction with and under similar methodologies as the debt tranches: Guidance for residual tranches of all Structured Securities was recently clarified to have those reported on Schedule BA, and not on Schedule D. This reflects appropriately on the fact that these are in a first loss position, much the same as an equity holding, in the capital structure, and are generally not considered securities that can be rated by the Nationally Recognized Statistical Rating Organizations (NRSROs). While they may have some characteristics akin to a debt security, they are more appropriately treated as equity-like and we believe they should take the RBC factor of similar assets that are reported on Schedule BA.
- Specific proposals for addressing RBC treatment of residual tranches to reduce arbitrage incentives: A substantive question is what the actual exposure is across the insurance industry. There are a number of factors that may be worth considering, not just for residual tranches of structured securities (assuming they will be treated as equity) but also other investments that receive equity treatment. Before considering a specific proposal, we recommend addressing a key principle, namely what are the actual exposures and what are the different characteristics of those exposures. The profile of residual tranches differs from publicly traded common stock, which differs from investments in private funds.

Thank you for the opportunity to provide comments on this important initiative. We can be reached at tricia.matson@riskreg.com/(860) 305-0701 and edward.toy@riskreg.com/(917)561-5605 if you or other E Committee members have any questions.

MEMO



To: Risk-Based Capital Investment Risk and Evaluation (E) Working Group

From: Ray Spudeck

cc: Jane Barr, NAIC

Date: February 18, 2022

Re: Response to Request for Comments on RBC project for Certain Asset Back Securities

The Office has been closely following this issue and has been actively involved in the discussion. In response to your request, we would like to reiterate and reinforce some of the thinking we have already expressed.

We continue to believe that the risk, especially tail risk, of this growing class of asset structures cannot be realistically captured in traditional ratings and have been in support of a modeling-based approach as has been adopted for CMBS. These securities share many of the same features that led the NAIC to move to modeling for CMBS, but in many cases are more complex and intricate.

Clearly, outside expertise will be needed to guide the regulatory community toward the “best” answers. Whether it is an actuarial expertise, investment expertise or some combination of the two is an open question. As to whether to publish an NAIC RFP for an outside vendor, or accept the offer of the ACLI to pay for the consultants, using the previous approach, we feel the important concern is to ensure that we are getting the right expertise in a group who is responsive to regulator concerns and issues.

We do believe that while, in the current market, this issue is likely to be more critical in the Life sector, as we are building this structure with a forward looking lens, the other groups (P&C, and Health) should be involved as they may well have to address these as the market evolves and grows.

Lastly, with regard to the residual tranches, we continue to be of the opinion that the ability of the methodologies used for debt tranches to fully capture the unique risks that can be associated with the residual tranches is an open question that will require more detailed research and analysis.

Further, as to specific proposals for addressing these residual tranches, while getting the “right” RBC charge for them is of course essential, we also think that the ability to provide transparency to the regulator as to who is holding these and in what amounts is equally important. And this transparency should be easily identifiable.

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**RBC INVESTMENT RISK AND EVALUATION (E) WORKING GROUP
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
Carryover Items – RBC IR & E							
8	RBC IRE	2	2022 or Later	Supplementary Investment Risks Interrogatories (SIRI)	Referred from CADTF Referral from Blackrock and IL DOI	The Task Force received the referral on Oct. 27. This referral will be tabled until the bond factors have been adopted and the TF will conduct a holistic review all investment referrals.	1/12/2022 11/19/2020
9	RBC IRE	2	2022 or Later	NAIC Designation for Schedule D, Part 2 Section 2 - Common Stocks Equity investments that have an underlying bond characteristic should have a lower RBC charge? Similar to existing guidance for SVO-identified ETFs reported on Schedule D-1, are treated as bonds.	Referred from CADTF Referral from SAPWG 8/13/2018	10/8/19 - Exposed for a 30-day Comment period ending 11/8/2019 3-22-20 - Tabled discussion pending adoption of the bond structure and factors.	1/12/2022 10/11/2018
10	RBC IRE	2	2022 or Later	Structured Notes - defined as an investment that is structured to resemble a debt instrument, where the contractual amount of the instrument to be paid at maturity is at risk for other than the failure of the borrower to pay the contractual amount due. Structured notes reflect derivative instruments (i.e. put option or forward contract) that are wrapped by a debt structure.	Referred from CADTF Referral from SAPWG April 16, 2019	10/8/19 - Exposed for a 30-day Comment period ending 11/8/2019 3-22-20 - Tabled discussion pending adoption of the bond structure and factors.	1/12/2022 8/4/2019
11	RBC IRE	2	2022 or Later	Comprehensive Fund Review for investments reported on Schedule D Pt 2 Sn2	Referred from CADTF Referral from VOSTF 9/21/2018	Discussed during Spring Mtg. NAIC staff to do analysis. 10/8/19 - Exposed for a 30-day comment period ending 11/8/19 3-22-20 - Tabled discussion pending adoption of the bond structure and factors.	1/12/2022 11/16/2018
Ongoing Items – RBC IR&E							
New Items - RBC IR & E							
12			2023 or later	Evaluate the appropriate RBC treatment of Asset-Backed Securites (ABS), including Collateralized Loan Obligations (CLO), collateralized fund obligations (FSOs), or other similar securites carrying similar types of tail risk (Comple Assets).	Request from E Committee, SAPWG, VOSTF	Per the request of E Committee comments were solicited asking if these typs of assets should be considered a part of the RBC framework.	1/12/2022
13			2025 or later	Phase 2 Bond analysis - evaluate and develop an approach to map other ABS to current bond factors following the established principles from Phase I where the collateral has an assigned RBC. This project will likely require an outside consultant and the timeline could exceeds 2-3 years.	Request from E Committee	Per the request of E Committee comcest were solicited requesting the need for outside review.	1/12/2022

Capital Adequacy (E) Task Force RBC Proposal Form

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

DATE: <u>10/25/2021</u>	<u>FOR NAIC USE ONLY</u>
CONTACT PERSON: <u>Crystal Brown</u> TELEPHONE: <u>816-783-8146</u> EMAIL ADDRESS: <u>cbrown@naic.org</u> ON BEHALF OF: <u>Health RBC (E) Working Group</u> NAME: <u>Steve Drutz</u> TITLE: <u>Chief Financial Analyst/Chair</u> AFFILIATION: <u>WA Office of Insurance Commissioner</u> ADDRESS: <u>5000 Capitol Blvd SE</u> <u>Tumwater, WA 98501</u>	Agenda Item # <u>2021-18-H-MOD</u> Year <u>2022</u> <u>DISPOSITION</u> <input checked="" type="checkbox"/> ADOPTED <u>Feb. 25, 2022</u> <input type="checkbox"/> REJECTED _____ <input type="checkbox"/> DEFERRED TO _____ <input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____ <input checked="" type="checkbox"/> EXPOSED <u>Dec. 3, 2021, Jan. 28, 2022</u> <input type="checkbox"/> OTHER (SPECIFY) _____

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

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

DESCRIPTION OF CHANGE(S)

Incorporate benchmarking guidelines for the Working Group to follow in updating the investment income adjustment in the underwriting risk factors for Comprehensive Medical, Medicare Supplement and Dental & Vision.

REASON OR JUSTIFICATION FOR CHANGE **

The reason for the change is to clearly identify the frequency and parameters to use in adjusting the underwriting risk factors for investment income in the Comprehensive Medical, Medicare Supplement and Dental & Vision lines.

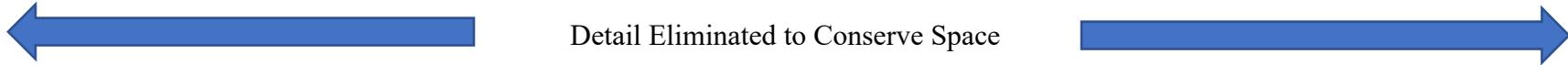
Additional Staff Comments:

11-4-21 cgb The WG exposed for 30-day public comment period ending on Dec. 3, 2021.
 12-16-21 cgb One comment letter received.
 12-16-21 cgb The Working Group adopted the proposal.
 01-28-22 cgb The Working Group re-exposed with alternative language for 15 days. Comments due back on 02-14-22. The purpose of the alternative language is to add further clarity
 02-14-22 cgb No comments received.
 02-25-22 cgb The WG re-adopted the proposal as modified with the alternative language to be used in place of the originally proposed language.

** This section must be completed on all forms.

Revised 11-2013

UNDERWRITING RISK - L(1) THROUGH L(21)
 XR013



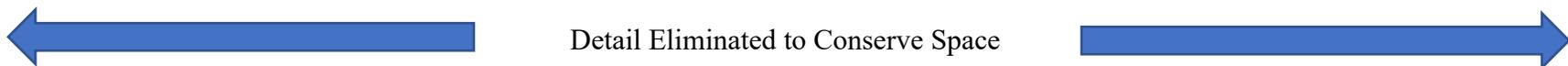
Line (12) Underwriting Risk Claims Ratio. For Columns (1) through (5), Line (11) / Line (6). If either Line (6) or Line (11) is zero or negative, Line (12) is zero.

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

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

The investment income yield was incorporated into the Comprehensive Medical & Hospital, Medicare Supplement and Dental & Vision lines of business. The purpose was to incorporate an offset to reduce the underwriting risk factor for investment income earned by the insurer. The Working Group incorporated a 0.5% income yield that was based on the yield of a 6-month US Treasury Bond. Each year, the Working Group will identify the yield of the 6-month Treasury bond (U.S. Department of the Treasury) on each Monday through the month of January and determine if further modifications to the 0.5% adjustment are needed. Any adjustments will be rounded up to the nearest 0.5%.

Line (14) Base Underwriting Risk RBC. Line (6) x Line (12) x Line (13).



Capital Adequacy (E) Task Force
RBC Proposal Form

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

<p style="text-align: right;">DATE: <u>10/27/21</u></p> <p>CONTACT PERSON: <u>Eva Yeung</u></p> <p>TELEPHONE: <u>816-783-8407</u></p> <p>EMAIL ADDRESS: <u>eveung@naic.org</u></p> <p>ON BEHALF OF: <u>Catastrophe Risk (E) Subgroup</u></p> <p>NAME: <u>Wanchin Chou</u></p> <p>TITLE: <u>Chair</u></p> <p>AFFILIATION: <u>Connecticut Department of Insurance</u></p> <p>ADDRESS: <u>153 Market Street, 7th Floor</u> <u>Hartford, CT 06103</u></p>	<p style="text-align: center;"><u>FOR NAIC USE ONLY</u></p> <p>Agenda Item # <u>2020-15-CR</u></p> <p>Year <u>2022</u></p> <p style="text-align: center;"><u>DISPOSITION</u></p> <p><input type="checkbox"/> ADOPTED _____</p> <p><input type="checkbox"/> REJECTED _____</p> <p><input type="checkbox"/> DEFERRED TO _____</p> <p><input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____</p> <p><input checked="" type="checkbox"/> EXPOSED <u>10/27/21</u></p> <p><input type="checkbox"/> OTHER (SPECIFY) _____</p>
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IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

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

DESCRIPTION OF CHANGE(S)

The proposed change would add the KCC as one of the approved third party commercial vendor catastrophe models.

REASON OR JUSTIFICATION FOR CHANGE **

To keep the consistency with other third party commercial vendors for earthquake and hurricane catastrophe models. KCC has got the approval from the Florida Commission on hurricane loss projection methodology on 6/19/2019 and 6/4/2021.

Additional Staff Comments:

10/27/21 – The Subgroup agreed to expose this proposal for a 30-day public comment period ending Nov. 26.
12/16/21 – The Subgroup adopted this proposal during the Dec. 16, 2021, virtual meeting.

** This section must be completed on all forms.

Revised 2-2019

CALCULATION OF CATASTROPHE RISK CHARGE RCAT PR027

Detail Eliminated To Conserve Space

The projected losses can be modeled using the following NAIC approved third party commercial vendor catastrophe models: AIR, [EQECATCoreLogic](#), RMS, [KCC](#), the ARA HurLoss Model, or the Florida Public Model for hurricane, as well as catastrophe models that are internally developed by the insurer or that are the result of adjustments made by the insurer to vendor models to represent the own view of catastrophe risk (hereinafter “own models”).

However, an insurer seeking to use an own model must first obtain written permission to do so by the domestic or lead state insurance regulator. In the situation where the model output is used to determine the catastrophe risk capital requirement for a single entity, the regulator granting permission to use the own model is the domestic state. In the situation where the model output is used to determine the catastrophe risk capital requirement for a group, the grantor is the lead state regulator. In the situation where the insurer seeking permission is a non-U.S. insurer, the grantor shall be the lead state regulator. Under all scenarios, the regulator that is granting permission should inform other domestic states that have a catastrophe risk exposure and share the results of the review.

To obtain permission to use the own model, the insurer must provide the domestic or lead state insurance regulator with written evidence of each of the following:

1. The use of the own model is reasonable considering the nature, scale, and complexity of the insurer’s catastrophe risk;
2. The own model is used for catastrophe risk management, capital assessment, and the capital allocation process and the model has been used for at least the last 3 years;
3. The perils included in the RBC Catastrophe Risk Charge have been validated by the insurer and that these perils include both US and global exposures, where applicable;
4. The own model has been developed using reasonable data and assumptions and that model results used in determining the RBC Catastrophe Risk Charge reflect exposure data that is no older than six months;
5. The insurer has individuals with experience in developing, testing and validating internal models or engages third parties with such experience. The insurer must provide supporting model documentation and a copy of the latest validation report and the insurer is solely responsible for the relevant cost. For each peril included in the RBC Catastrophe Risk Charge, the validation report should attest that the projected losses are a reasonable quantification of the exposure of the reporting entity. The validation report must provide a description of the scope, content, results and limitations of the validation, the individual qualifications of validation team and the date of the validation. Both the model documentation and the model validation report must be provided at a minimum once every five years, or whenever the lead or domestic state calls an examination; whenever there is a material change in the model; or whenever there is a material change in the insurer’s exposure to catastrophe exposure.
6. The results of the own model should be compared with the results produced by at least one of the following models: AIR, [EQECATCoreLogic](#), RMS, [KCC](#), ARA HurLoss, or the Florida Public Model. The insurer must provide the comparison and an explanation of the drivers of differences between the results produced by the internal model vs. results produced by the selected prescribed model.
7. If the own model has been approved or accepted by the non-U.S. group-wide supervisor for use in the determination of regulatory capital, the insurer must submit evidence, if available, from the non-US group-wide supervisor of the most recent approval/acceptance including the description of scope, content, results and limitations of the approval/acceptance process and dates of any planned future approval/acceptance, if known. The name and the contact information of a contact person at the non-US group-wide supervisor should also be provided for questions on the approval/acceptance process.

If the lead or domestic state determines that permission to use the own model cannot be granted, the insurer shall be required to determine the RBC Catastrophe Risk Charge through the use of one of the third party commercial vendor models (AIR, [EQECATCoreLogic](#), RMS, [KCC](#), ARA HurLoss (hurricane only)), or the Florida Public Model for hurricane, as advised by the lead state or domestic state.

If the lead or domestic state determines that permission to use the own model can be granted to determine the RBC Catastrophe Risk Charge, the model will be subject to additional review through the ongoing examination process. If, as a result of the examination, the lead or domestic state determines that permission to use the own model should be revoked, the insurer may be required to resubmit the risk-based capital filing and any past filings so impacted where own model was used, as directed by the lead state or domestic state.

If the insurer obtains permission to use the own model, it cannot revert back to using third party commercial vendor models to determine the RBC Catastrophe Risk Charge in subsequent reporting periods, unless this is agreed with the lead or domestic state that granted permission.

The contingent credit risk charge should be calculated in a manner consistent with the way the company internally evaluates and manages its modeled net catastrophe risk.

Note that no tax effect offsets or reinstatement premiums should be included in the modeled losses. Further note that the catastrophe risk charge is for earthquake and hurricane risks only.

As per the footnote on this page, modeled losses to be entered PR027A and PR027B in Lines (1) through (4) are to be calculated using one of the third party commercial vendor models – AIR, [EQECATCorelogic](#), RMS, [KCC](#), ARA HurLoss (hurricane only); or the Florida Public Model (hurricane only) or the insurer’s own catastrophe model; and using the insurance company’s own insured property exposure information as inputs to the model. The insurance company may elect to use the modeled results from any one of the models, or any combination of results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions but will be expected to use the same exposure data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. Any exceptions must be explained in the required *Attestation Re: Catastrophe Modeling Used in RBC Catastrophe Risk Charges* within this RBC Report.

The Grand Total (PR027) page includes an interrogatory to support an exemption from filing the catastrophe risk charge. Any company qualifying for exemption from the earthquake risk charge must identify the particular criteria from among (1a), (1b), (2) and (3) that provides its qualification for exemption, and may leave the other three items from this group of four possible qualifications for exemption blank; except identification of criteria (3) as the basis for the exemption requires a further answer to (3a) and (3b). If an insurer does not write or assume earthquake risks leaving no gross exposure, enter an “X” in interrogatory 3, with no need to fill in (3a) and (3b). Any company qualifying for exemption from the hurricane risk charge must identify the particular criteria from among (4a), (4b), (5) and (6) that provides its qualification for exemption, and may leave the other three items from this second group of four possible qualifications for exemption blank. If the company qualifies for exemption from the earthquake risk charge, page PR027A and line (1) on this page may be left blank. If the company qualifies for exemption from the hurricane risk charge, page PR027B and line (2) on this page may be left blank. If an insurer does not write or assume hurricane risks leaving no gross exposure, enter an “X” in interrogatory 6.

In general, the following conditions will qualify a company for exemption: if it uses an intercompany pooling arrangement or quota share arrangement with U.S. affiliates covering 100% of its earthquake and hurricane risks such that there is no exposure for these risks; if it has a ratio of Insured Value – Property to surplus as regards policyholders of less than 50%; or if it writes Insured Value – Property that includes hurricane and/or earthquake coverage in catastrophe-prone areas representing less than 10% of its surplus as regards policyholders.

“Insured Value – Property” includes aggregate policy limits for structures and contents for policies written and assumed in the following annual statement lines – Fire, Allied Lines, Earthquake, Farmowners, Homeowners, and Commercial Multi-Peril.

“Catastrophe-Prone Areas in the U.S.” include:

- i. For hurricane risks, Hawaii, District of Columbia and states and commonwealths bordering on the Atlantic Ocean and/or the Gulf of Mexico including Puerto Rico.
- ii. For earthquake risk or for fire following earthquake, any of the following commonwealth or states: Alaska, Hawaii, Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, New Mexico, Puerto Rico, and geographic areas in the following states that are in the New Madrid Seismic Zone - Missouri, Arkansas, Mississippi, Tennessee, Illinois and Kentucky.



Detail Eliminated To Conserve Space



CALCULATION OF CATASTROPHE RISK CHARGE FOR EARTHQUAKE PR027A

Earthquake	Reference	<u>Modeled Losses</u>			
		(1) <u>Direct and Assumed</u>	(2) <u>Net</u>	3† <u>Ceded Amounts Recoverable</u>	(4)†† <u>Ceded Amounts Recoverable with zero Credit Risk Charge</u>
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				
				(5) <u>Y/N</u>	
(5) Has the company reported above, its modeled earthquake losses using an occurrence exceedance probability (OEP) basis?					
	<u>Reference</u>			(6) <u>Amount</u>	(7) <u>RBC Requirement (C(6) * Factor)</u>
(6) Net Earthquake Risk	L(2) C(2)			0.1000	0
(7) Contingent Credit Risk for Earthquake Risk	L(2) C(3) - C(4)			0.018	0
(8) Total Earthquake Catastrophe Risk (AEP Basis)	If L(5) C(5) = "N", L(8) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"			0.1000	0
(9) Total Earthquake Catastrophe Risk (OEP Basis)	If L(5) C(5) = "Y", L(9) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"			0.1000	0
(10) Total Earthquake Catastrophe Risk	L(8) C(7) + L(9) C(7)				0

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, Corelogic, RMS, or KCC; the ARA HurLoss Model; or the Florida Public Model for hurricanes; or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

†† Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Denotes items that must be manually entered on the filing software

CALCULATION OF CATASTROPHE RISK CHARGE FOR HURRICANE PR027B

Hurricane	Reference	<u>Modeled Losses</u>			
		(1) <u>Direct and Assumed</u>	(2) <u>Net</u>	3† <u>Ceded Amounts Recoverable</u>	(4)†† <u>Ceded Amounts Recoverable with zero Credit Risk Charge</u>
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				
				(5) <u>Y/N</u>	
(5) Has the company reported above, its modeled hurricane losses using an occurrence exceedance probability (OEP) basis?					
	<u>Reference</u>		(6) <u>Amount</u>	Factor	(7) <u>RBC Requirement (C(6) * Factor)</u>
(6) Net Hurricane Risk	L(2) C(2)		0	1.000	0
(7) Contingent Credit Risk for Hurricane Risk	L(2) C(3) - C(4)		0	0.018	0
(8) Total Hurricane Catastrophe Risk (AEP Basis)	If L(5) C(5) = "N", L(8) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"		0	1.000	0
(9) Total Hurricane Catastrophe Risk (OEP Basis)	If L(5) C(5) = "Y", L(9) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"		0	1.000	0
(10) Total Hurricane Catastrophe Risk	L(8) C(7) + L(9) C(7)				0

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, **CoreLogic**, RMS, **KCC**, the ARA HurLoss Model, or the Florida Public Model for hurricanes; or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

†† Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Denotes items that must be manually entered on the filing software

Capital Adequacy (E) Task Force
RBC Proposal Form

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

<p style="text-align: right;">DATE: <u>12/16/21</u></p> <p>CONTACT PERSON: <u>Eva Yeung</u></p> <p>TELEPHONE: <u>816-783-8407</u></p> <p>EMAIL ADDRESS: <u>eyeung@naic.org</u></p> <p>ON BEHALF OF: <u>Catastrophe Risk (E) Subgroup</u></p> <p>NAME: <u>Wanchin Chou</u></p> <p>TITLE: <u>Chair</u></p> <p>AFFILIATION: <u>Connecticut Department of Insurance</u></p> <p>ADDRESS: <u>153 Market Street, 7th Floor</u> <u>Hartford, CT 06103</u></p>	<p style="text-align: center;"><u>FOR NAIC USE ONLY</u></p> <p>Agenda Item # <u>2021-17-CR</u></p> <p>Year <u>2022</u></p> <p style="text-align: center;"><u>DISPOSITION</u></p> <p><input type="checkbox"/> ADOPTED _____</p> <p><input type="checkbox"/> REJECTED _____</p> <p><input type="checkbox"/> DEFERRED TO _____</p> <p><input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____</p> <p><input checked="" type="checkbox"/> EXPOSED <u>12/16/22</u></p> <p><input checked="" type="checkbox"/> OTHER (SPECIFY) <u>3/22/22 (2022-01-CR MOD)</u></p>
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IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

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

DESCRIPTION OF CHANGE(S)

The proposed change may add wildfire as one of the catastrophe risk perils for informational purposes only in the Rcat component.

REASON OR JUSTIFICATION FOR CHANGE **

While the Catastrophe Risk (E) Subgroup reviewed the possibility of expanding the current catastrophe framework to include other perils that may experience a greater tail risk under projected climate-related trends, the wildfire has been identified as one of the major drivers of the U.S. insured losses. The Subgroup decided to consider adding wildfire as one of the catastrophe perils in the Rcat component.

Additional Staff Comments:

12/16/21 – The Catastrophe Risk (E) Subgroup exposed the proposal for a 60-day comment period ending by 02-13-22.
2/22/22 – The Catastrophe Risk (E) Subgroup adopted this proposal during the Feb. 22, 2022, virtual meeting.
3/22/22 -Modification of this proposal can be found in 2022-01-CR

** This section must be completed on all forms.

Revised 2-2019

CALCULATION OF CATASTROPHE RISK CHARGE RCAT
PR027A, PR027B, PR027C, PR027, AND PR027INT

The catastrophe risk charge for earthquake (PR027A), ~~and~~ hurricane (PR027B), and wildfire for Informational purposes only (PR027C) risks is calculated by multiplying the RBC factors by the corresponding modeled losses and reinsurance recoverables. The risk applies on a net basis with a corresponding contingent credit risk charge for certain categories of reinsurers. Data must be provided for the worst year in 50, 100, 250, and 500; however, only the worst year in 100 will be used in the calculation of the catastrophe risk charge. While projected losses modeled on an Aggregate Exceedance Probability basis is preferred, companies are permitted to report on an Occurrence Exceedance Probability basis if that is consistent with the company's internal risk management process.

The projected losses can be modeled using the following NAIC approved third party commercial vendor catastrophe models: AIR, Corelogic, RMS, KCC, the ARA HurLoss Model, or the Florida Public Model for hurricane, as well as catastrophe models that are internally developed by the insurer or that are the result of adjustments made by the insurer to vendor models to represent the own view of catastrophe risk (hereinafter "own models").

However, an insurer seeking to use an own model must first obtain written permission to do so by the domestic or lead state insurance regulator. In the situation where the model output is used to determine the catastrophe risk capital requirement for a single entity, the regulator granting permission to use the own model is the domestic state. In the situation where the model output is used to determine the catastrophe risk capital requirement for a group, the grantor is the lead state regulator. In the situation where the insurer seeking permission is a non-U.S. insurer, the grantor shall be the lead state regulator. Under all scenarios, the regulator that is granting permission should inform other domestic states that have a catastrophe risk exposure and share the results of the review.

To obtain permission to use the own model, the insurer must provide the domestic or lead state insurance regulator with written evidence of each of the following:

1. The use of the own model is reasonable considering the nature, scale, and complexity of the insurer's catastrophe risk;
2. The own model is used for catastrophe risk management, capital assessment, and the capital allocation process and the model has been used for at least the last 3 years;
3. The perils included in the RBC Catastrophe Risk Charge have been validated by the insurer and that these perils include both US and global exposures, where applicable;
4. The own model has been developed using reasonable data and assumptions and that model results used in determining the RBC Catastrophe Risk Charge reflect exposure data that is no older than six months;
5. The insurer has individuals with experience in developing, testing and validating internal models or engages third parties with such experience. The insurer must provide supporting model documentation and a copy of the latest validation report and the insurer is solely responsible for the relevant cost. For each peril included in the RBC Catastrophe Risk Charge, the validation report should attest that the projected losses are a reasonable quantification of the exposure of the reporting entity. The validation report must provide a description of the scope, content, results and limitations of the validation, the individual qualifications of validation team and the date of the validation. Both the model documentation and the model validation report must be provided at a minimum once every five years, or whenever the lead or domestic state calls an examination; whenever there is a material change in the model; or whenever there is a material change in the insurer's exposure to catastrophe exposure.
6. The results of the own model should be compared with the results produced by at least one of the following models: AIR, Corelogic, RMS, KCC, ARA HurLoss, or the Florida Public Model. The insurer must provide the comparison and an explanation of the drivers of differences between the results produced by the internal model vs. results produced by the selected prescribed model.
7. If the own model has been approved or accepted by the non-U.S. group-wide supervisor for use in the determination of regulatory capital, the insurer must submit evidence, if available, from the non-US group-wide supervisor of the most recent approval/acceptance including the description of scope, content, results and limitations of the approval/acceptance process and dates of any planned future approval/acceptance, if known. The name and the contact information of a contact person at the non-US group-wide supervisor should also be provided for questions on the approval/acceptance process.

If the lead or domestic state determines that permission to use the own model cannot be granted, the insurer shall be required to determine the RBC Catastrophe Risk Charge through the use of one of the third-party commercial vendor models (AIR, Corelogic, RMS, KCC, ARA HurLoss (hurricane only)), or the Florida Public Model for hurricane, as advised by the lead state or domestic state.

If the lead or domestic state determines that permission to use the own model can be granted to determine the RBC Catastrophe Risk Charge, the model will be subject to additional review through the ongoing examination process. If, as a result of the examination, the lead or domestic state determines that permission to use the own model should be revoked, the insurer may be required to resubmit the risk-based capital filing and any past filings so impacted where own model was used, as directed by the lead state or domestic state. If the insurer obtains permission to use the own model, it cannot revert back to using third party commercial vendor models to determine the RBC Catastrophe Risk Charge in subsequent reporting periods, unless this is agreed with the lead or domestic state that granted permission.

The contingent credit risk charge should be calculated in a manner consistent with the way the company internally evaluates and manages its modeled net catastrophe risk.

Note that no tax effect offsets or reinstatement premiums should be included in the modeled losses. Further note that the catastrophe risk charge is for earthquake and hurricane risks only.

As per the footnote on this page, modeled losses to be entered PR027A, ~~and~~ PR027B and PR027C in Lines (1) through (4) are to be calculated using one of the third party commercial vendor models – AIR, Corelogic, RMS, KCC, ARA HurLoss (hurricane only); or the Florida Public Model (hurricane only) or the insurer’s own catastrophe model; and using the insurance company’s own insured property exposure information as inputs to the model. The insurance company may elect to use the modeled results from any one of the models, or any combination of results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions but will be expected to use the same exposure data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. Any exceptions must be explained in the required *Attestation Re: Catastrophe Modeling Used in RBC Catastrophe Risk Charges* within this RBC Report.

The ~~Grand Total (PR027) page includes an i~~Interrogatory on page (PR027INT) ~~to~~ supports an exemption from filing the catastrophe risk charge.

Any company qualifying for exemption from the earthquake risk charge must identify the particular criteria from among (1a), (1b), (2) and (3) that provides its qualification for exemption and may leave the other three items from this group of four possible qualifications for exemption blank; except identification of criteria (3) as the basis for the exemption requires a further answer to (3a) and (3b). If an insurer does not write or assume earthquake risks leaving no gross exposure, enter an “X” in PR027INT interrogatory 3, with no need to fill in (3a) and (3b). If the company qualifies for exemption from the earthquake risk charge, page PR027A and line (1) on ~~this page~~ PR027 may be left blank.

Any company qualifying for exemption from the hurricane risk charge must identify the particular criteria from among (4a), (4b), (5) and (6) that provides its qualification for exemption and may leave the other three items from this second group of four possible qualifications for exemption blank. If an insurer does not write or assume hurricane risks leaving no gross exposure, enter an “X” in PR027INT interrogatory 6. If the company qualifies for exemption from the hurricane risk charge, page PR027B and line (2) on ~~this page~~ PR027 may be left blank.

Any company qualifying for exemption from the wildfire risk charge must identify the particular criteria from among (7a), (7b), (8) and (9) that provides its qualification for exemption and may leave the other three items from this third group of four possible qualifications for exemption blank. If an insurer does not write or assume hurricane risks leaving no gross exposure, enter an “X” in PR027INT interrogatory 9. If the company qualifies for exemption from the wildfire risk charge, page PR027C and line (3) on PR027 may be left blank.

In general, the following conditions will qualify a company for exemption: if it uses an intercompany pooling arrangement or quota share arrangement with U.S. affiliates covering 100% of its earthquake, ~~and~~ hurricane and wildfire risks such that there is no exposure for these risks; if it has a ratio of Insured Value – Property to surplus as regards policyholders of less than 50%; or if it writes Insured Value – Property that includes hurricane ~~and/or~~ earthquake and/or wildfire coverage in catastrophe-prone areas representing less than 10% of its surplus as regards policyholders.

“Insured Value – Property” includes aggregate policy limits for structures and contents for policies written and assumed in the following annual statement lines – Fire, Allied Lines, Earthquake, Farmowners, Homeowners, and Commercial Multi-Peril.

“Catastrophe-Prone Areas in the U.S.” include:

- i. For hurricane risks, Hawaii, District of Columbia and states and commonwealths bordering on the Atlantic Ocean and/or the Gulf of Mexico including Puerto Rico.
- ii. For earthquake risk or for fire following earthquake, any of the following commonwealth or states: Alaska, Hawaii, Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, New Mexico, Puerto Rico, and geographic areas in the following states that are in the New Madrid Seismic Zone - Missouri, Arkansas, Mississippi, Tennessee, Illinois and Kentucky.
- iii. For wildfire risk, California, Idaho, Montana, Oregon, Nevada, Wyoming, Colorado, New Mexico, Washington, Arizona, and Utah.

Specific Instructions for Application of the Formula

Column (1) – Direct and Assumed Modeled Losses

These are the direct and assumed modeled losses per the first footnote. Include losses only; no loss adjustment expenses. For companies that are part of an inter-company pooling arrangement, the losses in this column should be consistent with those reported in Schedule P, i.e. losses reported in this column should be the gross losses for the pool multiplied by the company’s share of the pool.

Column (2) – Net Modeled Losses

These are the net modeled losses per the footnote. Include losses only; no loss adjustment expenses.

Column (3) - Ceded Amounts Recoverable

These are the modeled losses ceded under any reinsurance contract. Include losses only, no loss adjustment expenses, and should be associated with the Net Modeled Losses.

Column (4) - Ceded Amounts with Zero Credit Risk Charge

Per the footnote, modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Column (6) – Amount

These are automatically calculated based on the previous columns.

Column (7) - RBC Requirement

A factor of 1.000 is applied to the reported modeled catastrophe losses calculated on both AEP and OEP basis, and a factor of 0.018 is applied to the reinsurance recoverables. The RBC Requirement is based on either AEP reported results or OEP reported results (not both), consistent with the way the company internally evaluates and manages its modeled net catastrophe risk.

Column (5) – Y/N

Please indicate “Y” for OEP basis and “N” for AEP basis. This column should not be blank.

ATTESTATION RE: CATASTROPHE MODELING USED IN RBC CATASTROPHE RISK CHARGES PR002

(1) [Redacted Company Name] hereby certifies that the modeled catastrophe losses for earthquake risk, hurricane risk, and wildfire risk entered on lines 1 through 4 of Schedule PR027 of this Risk-Based Capital Report were applying the same catastrophe models or combination of models to the same underlying exposure data, and using the same modeling assumptions, as the company uses in its own internal risk management process, with the following exceptions:

(1a) [Redacted]

These exceptions, if any, are made for the following reasons:

(1b) [Redacted]

The following describes the company's application of catastrophe modeling to the determination of the Reat risk charges: (Include which models are used in what combinations for each of the Reat charges; what key modeling assumptions are used, including but not limited to time dependency, secondary uncertainty, storm surge, demand surge, and fire following earthquake; and the rationale for treatment of each issue or item): (provide attachments if necessary):

(2) [Redacted]

The company further certifies that the underlying exposure data used in the catastrophe modeling process is accurate and complete to the best of our knowledge and ability, with the following limitations:

(3) [Redacted]

The following describes the extent to which the exposure location data is accurate to GPS coordinates; to zip code; and to a level less accurate than zip code: (provide attachments if necessary):

(4) [Redacted]

The following describes the steps taken to validate, to the best of the Company's knowledge and belief, the accuracy and completeness of the exposure data used in the modeling process to determine the Reat catastrophe risk charges (provide attachments if necessary):

(5) [Redacted]

Provide an explanation of the methodology used to derive the amounts in columns 3 and 4 of page PR027A, PR027B and PR027C.

(6) [Redacted]

(7) Completed on behalf of: [Redacted] (7) Completed By: [Redacted] [Redacted] [Redacted] [Redacted]
Last First Middle Title

(7) Email: [Redacted] (7) Phone: [Redacted] Date: [Redacted]

CALCULATION OF CATASTROPHE RISK CHARGE FOR WILDFIRE PR027C FOR INFORMATIONAL PURPOSES ONLY

Wildfire	Reference	<u>Modeled Losses</u>			
		(1) <u>Direct and Assumed</u>	(2) <u>Net</u>	3† <u>Ceded Amounts Recoverable</u>	(4)†† <u>Ceded Amounts Recoverable with zero Credit Risk Charge</u>
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				
				(5) <u>Y/N</u>	
(5) Has the company reported above, its modeled wildfire losses using an occurrence exceedance probability (OEP) basis?					
	<u>Reference</u>		(6) <u>Amount</u>	Factor	(7) <u>RBC Requirement (C(6) * Factor)</u>
(6) Net Wildfire Risk	L(2) C(2)		0	1.000	0
(7) Contingent Credit Risk for Wildfire Risk	L(2) C(3) - C(4)		0	0.018	0
(8) Total Wildfire Catastrophe Risk (AEP Basis)	If L(5) C(5) = "N", L(8) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"		0	1.000	0
(9) Total Wildfire Catastrophe Risk (OEP Basis)	If L(5) C(5) = "Y", L(9) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"		0	1.000	0
(10) Total Wildfire Catastrophe Risk	L(8) C(7) + L(9) C(7)				0

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, RMS, or KCC; or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

††Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

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

CALCULATION OF CATASTROPHE RISK CHARGE PR027

	<u>Reference</u>	<u>(1)</u> <u>RBC Amount</u>
(1) Total Earthquake Catastrophe Risk	PR027A L(10) C(7)	0
(2) Total Hurricane Catastrophe Risk	PR027B L(10) C(7)	0
(3) Total Wildfire Catastrophe Risk	PR027C L(10)C(7)	0
(4) Total Catastrophe Risk (R _{cat})	SQRT(L(1) ² + L(2) ²)	0
(4a) Total Catastrophe Risk (R _{cat} For Informational Purposes Only)	SQRT(L(1) ² + L(2) ² + L(3) ²)	0

Lines 3 and 4a are for informational purposes only

INTERROGATORY TO SUPPORT EXEMPTION FROM COMPLETING PR027 (To be completed by companies reporting no RBC charge in either Lines 1 through 3) PR027INT

Place an "X" in the appropriate cell
for the criteria under which the
company is claiming an exemption

A Earthquake Exemption (To be completed by companies reporting no RBC charge in PR027 Line 1) -

- (1) The company has not entered into a reinsurance agreement covering earthquake exposure with a non-affiliate or a non-US affiliate and, either
 - (1a) the company participates in an inter-company pooling arrangement with 0% participation, leaving no net exposure for earthquake risks; Or
 - (1b) the company cedes 100% of its earthquake exposures to its US affiliate(s), leaving no net exposure for earthquake risks
- (2) The Company's Ratio of Insured Value - Property to surplus as regards policyholders is less than 50%
- (3) The company has written Insured Value - Property that includes earthquake coverage in the Earthquake-Prone areas representing less than 10% of its surplus as regards policyholders

For any company qualifying for the exemption under 3 provide details about how the "geographic areas in the New Madrid Seismic Zone" were determined.

(3a) What resource was used to define the New Madrid Seismic Zone?

--

(3b) Was exposure determined based on zip codes or counties in the zone, was it based on all of the earthquake exposure in the identified states or was another methodology used? Describe any other methodology used.

Note: "Earthquake-Prone areas" include any of the following states or commonwealths: Alaska, Hawaii, Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, New Mexico, Puerto Rico, and geographic areas in the following states that are in the New Madrid Seismic Zone - Missouri, Arkansas, Mississippi, Tennessee, Illinois and Kentucky.

B Hurricane Exemption (To be completed by companies reporting no RBC charge in PR027 Line 2) -

- (4) The company has not entered into a reinsurance agreement covering hurricane exposure with a non-affiliate or a non-US affiliate and, either
 - (4a) the company participates in an inter-company pooling arrangement with 0% participation, leaving no net exposure for hurricane risks; Or
 - (4b) the company cedes 100% of its hurricane exposures to its US affiliate(s), leaving no net exposure for hurricane risks
- (5) The Company's Ratio of Insured Value - Property to surplus as regards policyholders is less than 50%
- (6) The company has written Insured Value - Property that includes hurricane coverage in the Hurricane-Prone areas representing less than 10% of its surplus as regards policyholders

Note: "Hurricane-Prone areas" include Hawaii, District of Columbia and states and commonwealths bordering on the Atlantic Ocean, and/or Gulf of Mexico including Puerto Rico.

C Wildfire Exemption (To be completed by companies reporting no RBC charge in PR027 Line 3) -

- (7) The company has not entered into a reinsurance agreement covering wildfire exposure with a non-affiliate or a non-US affiliate and, either
 - (7a) the company participates in an inter-company pooling arrangement with 0% participation, leaving no net exposure for wildfire risks; Or
 - (7b) the company cedes 100% of its wildfire exposures to its US affiliate(s), leaving no net exposure for wildfire risks
- (8) The Company's Ratio of Insured Value - Property to surplus as regards policyholders is less than 50%
- (9) The company has written Insured Value - Property that includes wildfire coverage in the wildfire-Prone areas representing less than 10% of its surplus as regards policyholders

Note: "Wildfire-Prone areas" include any of the following states: California, Idaho, Montana, Oregon, Nevada, Wyoming, Colorado, New Mexico, Washington, Arizona, and Utah.

Denotes items that must be manually entered on the filing software.
* Item C is for informational purposes only.

Calculation of Total Risk-Based Capital After Covariance PR032 R4-Rcat

		(1)	
R4 - Underwriting Risk - Reserves		PRBC O&I Reference	RBC Amount
(56)	One half of Reinsurance RBC	If R4 L(57)>(R3 L(51) + R3 L(52)), R3 L(52), otherwise, 0	0
(57)	Total Adjusted Unpaid Loss/Expense Reserve RBC	PR017 L(15)C(20)	0
(58)	Excessive Premium Growth - Loss/Expense Reserve	PR016 L(13) C(8)	0
(59)	A&H Claims Reserves Adjusted for LCF	PR024 L(5) C(2) + PR023 L(6) C(4)	0
(60)	Total R4	L(56)+L(57)+L(58)+L(59)	0
R5 - Underwriting Risk - Net Written Premium			
(61)	Total Adjusted NWP RBC	PR018 L(15)C(20)	0
(62)	Excessive Premium Growth - Written Premiums Charge	PR016 L(14)C(8)	0
(63)	Total Net Health Premium RBC	PR022 L(21)C(2)	0
(64)	Health Stabilization Reserves	PR025 L(8)C(2) + PR023 L(3) C(2)	0
(65)	Total R5	L(61)+L(62)+L(63)+L(64)	0
Rcat - Catastrophe Risk			
(66)	Total Rcat	PR027 L(4) C(1)	0
(67)	Total RBC After Covariance Before Basic Operational Risk = $R0 + \text{SQRT}(R1^2 + R2^2 + R3^2 + R4^2 + R5^2 + Rcat^2)$		0
(68)	Basic Operational Risk = $0.030 \times L(67)$		0
(69)	C-4a of U.S. Life Insurance Subsidiaries (from Company records)		0
(70)	Net Basic Operational Risk = Line (68) - Line (69) (Not less than zero)		0
(71)	Total RBC After Covariance including Basic Operational Risk = L(67)+ L(70)		0
(72)	Authorized Control Level RBC including Basic Operational Risk = $.5 \times L(71)$		0

SCHEDULE P PART IX - LINE OF BUSINESS PR1XX

Column 28III = Column 28C - Column 28I - Column 28II

	(3) Premiums	(24) Total Net Losses and Expenses		Earthquake and Hurricane Experience*				(28C) Total Losses and Expenses Incurred, Net excluding Earthquake and Hurricane Losses	Wildfire Catastrophe Experience*				(28III) Total Losses and Expenses Incurred, Net excluding Earthquake, Hurricane and Wildfire Losses
		Earned, Net	Unpaid	(28) Total Losses and Expenses Incurred, Net	(24A) Total U.S. Net Losses Unpaid	(28A) Total U.S. Losses Incurred, Net	(24B) Total Non-U.S. Net Losses Unpaid		(28B) Total Non-U.S. Losses Incurred, Net	(24I) Total U.S. Net Losses Unpaid	(28I) Total U.S. Losses Incurred, Net	(24II) Total Non-U.S. Net Losses Unpaid	
(2) 2013	0	0	0	0	0	0	0	0	0	0	0	0	0
(3) 2014	0	0	0	0	0	0	0	0	0	0	0	0	0
(4) 2015	0	0	0	0	0	0	0	0	0	0	0	0	0
(5) 2016	0	0	0	0	0	0	0	0	0	0	0	0	0
(6) 2017	0	0	0	0	0	0	0	0	0	0	0	0	0
(7) 2018	0	0	0	0	0	0	0	0	0	0	0	0	0
(8) 2019	0	0	0	0	0	0	0	0	0	0	0	0	0
(9) 2020	0	0	0	0	0	0	0	0	0	0	0	0	0
(10) 2021	0	0	0	0	0	0	0	0	0	0	0	0	0
(11) 2022	0	0	0	0	0	0	0	0	0	0	0	0	0
(12) Totals	0	0	0	0	0	0	0	0	0	0	0	0	0

Vendor link items
 manual data entry items

*Please provide losses only; no expenses. Catastrophe losses should 1.) be the net losses incurred for the reporting entity, not net losses incurred for the group; 2.) be a subset of, and therefore, less than, total net losses reported in Column (28); 3.) be reported in 000s to be consistent with all values reported in this exhibit; and 4.) not be reported as negative amounts.
 **If this line of business has incurred U.S. catastrophe losses arising from events either included on the list of U.S. catastrophe events approved by the Catastrophe Risk Subgroup as available on the NAIC's website or numbered and labeled by PCS as a hurricane, tropical storm, or earthquake, provide only the amount of those catastrophe losses in Catastrophe Experience columns (24A) and (28A).
 ***If this line of business has incurred non-U.S. catastrophe losses arising from a hurricane, tropical storm, or earthquake from an event included on the list of non-U.S. catastrophe events approved by the Catastrophe Risk Subgroup as available on the NAIC's website, provide only the amount of those catastrophe losses in Catastrophe Experience Columns (24B) and (28B).
 ****Columns 24I through 28III are for informational purposes only.

Capital Adequacy (E) Task Force RBC Proposal Form

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

DATE: <u>10/1/2021</u>	<u>FOR NAIC USE ONLY</u>
CONTACT PERSON: <u>Eva Yeung</u> TELEPHONE: <u>816-783-8407</u> EMAIL ADDRESS: <u>eyeung@naic.org</u> ON BEHALF OF: <u>P/C RBC (E) Working Group</u> NAME: <u>Tom Botsko</u> TITLE: <u>Chair</u> AFFILIATION: <u>Ohio Department of Insurance</u> ADDRESS: <u>50 W. Town Street, Third Floor – Suite 300</u> <u>Columbus, OH 43215</u>	Agenda Item # <u>2021-14-P</u> Year <u>2022</u> <b style="text-align: center;"><u>DISPOSITION</u> <input type="checkbox"/> ADOPTED _____ <input type="checkbox"/> REJECTED _____ <input type="checkbox"/> DEFERRED TO _____ <input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____ <input checked="" type="checkbox"/> EXPOSED <u>10/25/21</u> _____ <input type="checkbox"/> OTHER (SPECIFY) _____

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

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

DESCRIPTION OF CHANGE(S)

The proposed change would remove the embedded 2% operational risk contained in the R3 credit risk component.

REASON OR JUSTIFICATION FOR CHANGE **

When the reinsurance recoverable credit risk charge was implemented in 2018, a load of operational risk was embedded in the charge. Now, the operational risk is separately addressed in RBC as a standard-alone capital add-on, it results with duplication of the operational risk charge on the reinsurance recoverable component. This proposal intends to eliminate the double-counting effect of the operational risk charge on the component.

Additional Staff Comments:

10/25/21 – The PCRBC WG exposed it for a 30-day public comment period ending Nov. 24.

** This section must be completed on all forms.

Revised 2-2019

PR012 – Credit Risk for Receivables

Reinsurance Recoverables

Detail Eliminated To Conserve Space

Reinsurer Designation Equivalent Rating Category and Corresponding Factors—For RBC R3 Credit Risk Charge						
Description	Secure 1	Secure 2	Secure 3	Secure 4	Secure 5	Vulnerable 6 or Unrated
A.M. Best	A++	A+	A	A-	B++, B+	B, B-, C++, C+, C, C-, D, E, F
Standard & Poor's	AAA	AA+, AA, AA-	A+, A	A-	BBB+, BBB, BBB-	BB+, BB, BB-, B+, B, B-, CCC, CC, C, D, R
Moody's	Aaa	Aa1, Aa2, Aa3	A1, A2	A3	Baa1, Baa2, Baa3	Ba1, Ba2, Ba3, B1, B2, B3, Caa, Ca, C
Fitch	AAA	AA+, AA, AA-	A+, A	A-	BBB+, BBB, BBB-	BB+, BB, BB-, B+, B, B-, CCC, CC, C, D, R
Collateralized Amounts Factors	1.6%	2.1%	2.8%	3.0%	3.0%	3.0%
Uncollateralized Amounts Factors	1.6%	2.1%	2.8%	3.3%	5.1%	12.0%

Detail Eliminated To Conserve Space

2020 P&C RBC - Comparison of Action Levels
Current RBC Action Levels vs Alternative RBC Action Level
 Alternative RBC: 2% Reduction on Reinsurance Recoverable RBC Charge for ALL Reinsurance Designation Equivalents

(Excluding Companies with Negative TAC)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL	9						9
	ACL		2					2
	RAL		1	2				3
	CAL			1	13			14
	Trend Test				2	22		24
	No Action			1			2,420	2,423
	Total		9	3	4	15	24	2,420

(Companies with TAC Between \$0 and \$5 Million)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL	6						6
	ACL		1					1
	RAL			2				2
	CAL				6			6
	Trend Test				1	5		6
	No Action			1			236	237
	Total		6	1	3	7	5	236

(Companies with TAC Between \$5 and \$25 Million)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL	3						3
	ACL							0
	RAL							0
	CAL			1	5			6
	Trend Test				1	8		9
	No Action						761	762
	Total		3	0	1	6	9	761

(Companies with TAC Between \$25 Million and \$75 Million)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL							0
	ACL		1					1
	RAL		1					1
	CAL							0
	Trend Test					5		5
	No Action						578	579
	Total		0	2	0	0	6	578

(Companies with TAC Between \$75 Million and \$250 Million)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL							0
	ACL							0
	RAL							0
	CAL				2			2
	Trend Test					2		2
	No Action						430	430
	Total		0	0	0	2	2	430

(Companies with TAC Between \$250 Million and \$1 Billion)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL							0
	ACL							0
	RAL							0
	CAL							0
	Trend Test					1		1
	No Action						267	267
	Total		0	0	0	0	1	267

(Companies with TAC Greater Than \$1 Billion)

		2020 RBC Action Level under Current RBC Formula						Total
		MCL	ACL	RAL	CAL	Trend Test	No Action	
2020 RBC Action Level under Alternative RBC Formula	MCL							0
	ACL							0
	RAL							0
	CAL							0
	Trend Test					1		1
	No Action						148	148
	Total		0	0	0	0	1	148

Distributions of Percentage Change in 2020 RBC Ratios by Company Size under Alternative RBC Formula
Alternative RBC: 2.0% Reduction on Reinsurance Recoverable RBC Charge for ALL Reinsurance Designation Equivalents

RBC Ratio Change\TAC Range	\$0 to \$5	\$5 to \$25	\$25 to \$75	\$75 to \$250	\$250 to \$1,000	Over \$1,000	Total
Less than -50%	0	0	0	0	0	0	0
-50% to -25%	0	0	0	0	0	0	0
-25% to -15%	0	0	0	0	0	0	0
-15% to -5%	0	0	0	0	0	0	0
-5% to 5%	227	662	494	381	249	140	2,153
5% to 15%	12	56	33	22	9	8	140
15% to 25%	9	21	15	11	2		58
25% to 50%	5	18	21	12	5	1	62
Greater than 50%	5	23	23	8	3		62
Subtotal	258	780	586	434	268	149	2,475

Comparison of 2020 RBC Charge under Alternative RBC Formula
Alternative RBC: 2.0% Reduction on Reinsurance Recoverable RBC Charge for ALL Reinsurance Designation Equivalents

TAC Range (\$ Million)	\$0 to \$5	\$5 to \$25	\$25 to \$75	\$75 to \$250	\$250 to \$1,000	Over \$1,000	Total
R3 - Current	71,884,508	267,078,272	829,927,624	1,471,721,675	1,935,441,255	5,794,628,606	10,370,681,940
R3 - Alternative	56,439,676	183,797,021	536,125,852	916,477,625	1,278,922,632	4,052,194,696	7,023,957,502
Percentage Change	-21.5%	-31.2%	-35.4%	-37.7%	-33.9%	-30.1%	-32.3%
R4 - Current	394,872,924	798,332,703	2,428,351,877	7,678,683,209	19,336,240,504	99,340,612,630	129,977,093,847
R4 - Alternative	385,941,326	773,790,796	2,382,242,619	7,519,699,697	19,005,250,705	97,621,362,500	127,688,287,643
Percentage Change	-2.3%	-3.1%	-1.9%	-2.1%	-1.7%	-1.7%	-1.8%
RBC After Covariance (incl. Oper Risk) - Current	562,635,300	1,914,873,807	5,366,308,507	14,478,094,005	36,933,609,966	314,404,511,521	373,660,033,106
RBC After Covariance (incl. Oper Risk) - Alternative	547,596,925	1,852,681,348	5,154,973,034	14,028,875,322	36,390,326,203	312,701,382,248	370,675,835,080
Percentage Change	-2.7%	-3.2%	-3.9%	-3.1%	-1.5%	-0.5%	-0.8%

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
Ongoing Items – Life RBC							
1	Life RBC WG	Ongoing	Ongoing	Make technical corrections to Life RBC instructions, blank and /or methods to provide for consistent treatment among asset types and among the various components of the RBC calculations for a single asset type.			
2	Life RBC WG	1	2022 or later	1. Monitor the impact of the changes to the variable annuities reserve framework and risk-based capital (RBC) calculation and determine if additional revisions need to be made. 2. Develop and recommend appropriate changes including those to improve accuracy and clarity of variable annuity (VA) capital and reserve requirements.	CATF	Being addressed by the Variable Annuities Capital and Reserve (E/A) Subgroup	
3	Life RBC WG	1	2022 or later	Provide recommendations for the appropriate treatment of longevity risk transfers by the new longevity factors.	New Jersey	Being addressed by the Longevity (E/A) Subgroup	
Carry-Over Items Currently being Addressed – Life RBC							
4	Life RBC WG	1	2022 or later	Update the current C-3 Phase I or C-3 Phase II methodology to include indexed annuities with consideration of contingent deferred annuities as well	AAA		
5	Life RBC WG	1	2022 or later	Work with the Life Actuarial (A) Task Force and Conning to develop the economic scenario generator for implementation.			
6	Life RBC WG	4	2021	Develop guidance for regulators as it relates to the potential impact of the bond factor changes on 2021 RBC results and the trend test			
6	Life RBC WG	1	2022 or later	Review companies at action levels, including previous years, to determine what drivers of the events are and consider whether changes to the RBC statistics are warranted.			
7	Life RBC WG	1	2022	Update the C-2 mortality treatment based on the Academy's recommendation.			
Carryover Items – RBC IR & E							
8	RBC IRE	2	2022 or Later	Supplementary Investment Risks Interrogatories (SIRI)	Referred from CADTF Referral from Blackrock and IL DOI	The Task Force received the referral on Oct. 27. This referral will be tabled until the bond factors have been adopted and the TF will conduct a holistic review all investment referrals.	1/12/2022 11/19/2020
9	RBC IRE	2	2022 or Later	NAIC Designation for Schedule D, Part 2 Section 2 - Common Stocks Equity investments that have an underlying bond characteristic should have a lower RBC charge? Similar to existing guidance for SVO-identified ETFs reported on Schedule D-1, are treated as bonds.	Referred from CADTF Referral from SAPWG 8/13/2018	10/8/19 - Exposed for a 30-day Comment period ending 11/8/2019 3-22-20 - Tabled discussion pending adoption of the bond structure and factors.	1/12/2022 10/11/2018
10	RBC IRE	2	2022 or Later	Structured Notes - defined as an investment that is structured to resemble a debt instrument, where the contractual amount of the instrument to be paid at maturity is at risk for other than the failure of the borrower to pay the contractual amount due. Structured notes reflect derivative instruments (i.e. put option or forward contract) that are wrapped by a debt structure.	Referred from CADTF Referral from SAPWG April 16, 2019	10/8/19 - Exposed for a 30-day Comment period ending 11/8/2019 3-22-20 - Tabled discussion pending adoption of the bond structure and factors.	1/12/2022 8/4/2019
11	RBC IRE	2	2022 or Later	Comprehensive Fund Review for investments reported on Schedule D Pt 2 Sn2	Referred from CADTF Referral from VOSTF 9/21/2018	Discussed during Spring Mtg. NAIC staff to do analysis. 10/8/19 - Exposed for a 30-day comment period ending 11/8/19 3-22-20 - Tabled discussion pending adoption of the bond structure and factors.	1/12/2022 11/16/2018
Ongoing Items – RBC IR&E							

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
				New Items - RBC IR &E			
12			2023 or later	Evaluate the appropriate RBC treatment of Asset-Backed Securites (ABS), including Collateralized Loan Obligations (CLO), collateralized fund obligations (CFOs), or other similar securites carrying similar types of tail risk (Complex Assets).	Request from E Committee, SAPWG, VOSTF	Per the request of E Committee comments were solicited asking if these types of assets should be considered a part of the RBC framework.	1/12/2022
13			2025 or later	Phase 2 Bond analysis - evaluate and develop an approach to map other ABS to current bond factors following the established principles from Phase 1 where the collateral has an assigned RBC. This project will likely require an outside consultant and the timeline could exceeds 2-3 years.	Request from E Committee	Per the request of E Committee comment were solicited requesting the need for outside review.	1/12/2022

Carry-Over Items Currently being Addressed – P&C RBC

14	Cat Risk SG	1	Year-end 2022 or later	<p>Continue development of RBC formula revisions to include a risk charge based on catastrophe model output:</p> <p>a) Evaluate other catastrophe risks for possible inclusion in the charge - determine whether to recommend developing charges for any additional perils, and which perils or perils those should be.</p>	Referral from the Climate and Resiliency Task Force. March 2021	<p>4/26/21 - The SG exposed the referral for a 30-day period.</p> <p>6/1/21 - The SG forwarded the response to the Climate and Resiliency Task Force.</p> <p>2/22/22 - The SG adopted proposal 2021-17-CR (adding the wildfire peril for informational purposes only). The SG continues reviewing other perils for possible inclusion in the Rcat</p>	4/26/2021
15	P&C RBC WG	1	Year-end 2020 or later	Evaluate a) the current growth risk methodology whether it is adequately reflects both operational risk and underwriting risk; b) the premium and reserve based growth risk factors either as a stand-alone task or in conjunction with the ongoing underwriting risk factor review with consideration of the operational risk component of excessive growth; c) whether the application of the growth factors to NET proxies adequately accounts for growth risk that is ceded to reinsures that do not trigger growth risk in their own right.	Refer from Operational Risk Subgroup	1) Sent a referral to the Academy on 6/14/18 conference call.	1/25/2018

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
16	P&C RBC WG	1	2020 Summer Meeting or later	Continue development of RBC formula revisions based on the Covered Agreement: consider whether the factor for uncollateralized, unrated reinsurers, runoff and captive companies should be adjusted		12/5/19 - The WG exposed Proposal 2018-19-P (Vulnerable 6 or unrated risk charge) for a 30-day exposure period. 2/3/20 - The WG adopted Proposal 2018-19-P. However, the WG intended to evaluate the data annually until reaching any agreed upon change to the factor and the structure. 3/15/21 - The WG exposed Proposal 2021-03-P (Credit Risk Instruction Modification) for a 30-day exposure period. 4/27/21 - The WG adopted proposal 2021-03-P. 6/30/21- The CADTF adopted this proposal.	8/4/2018
17	P&C RBC WG	1	Year-end 2021 2022 or later	Evaluate the proposed changes from the Affiliated Investment Ad Hoc Group related to P/C RBC Affiliated Investments			6/10/2019
18	P&C RBC WG	1	2021 2023 Summer Meeting or later	Continue working with the Academy to review the methodology and revise the underwriting (Investment Income Adjustment, Loss Concentration, LOB UW risk) charges in the PRBC formula as appropriate.			6/10/2019
19	Cat Risk SG	1	Year-end 2022 or later	Evaluate the possibility of allowing additional third party models or adjustments to the vendor models to calculate the cat model losses		7/15/21 - The SG is continue evaluating this item. 10/27/21 - The SG exposed the proposal 2021-15-CR (adding KCC model). 12/16/21 - The SG adopted the proposal 2021-15-CR. 3/23/22 - The WG adopted this proposal.	12/6/2019
20	P&C RBC WG	1	2022 2023 Spring Meeting	Evaluate if changes should be made to the P/C formula to better assess companies in runoff.		1/29/20 - received a referral from the Restructuring Mechanisms (E) WG 4/27/21 - The WG forwarded a response to the Restructuring Mechanism (E) WG.	2/3/2020
21	P&C RBC WG	1	2021 2023 Summer Meeting or later	Evaluate the Underwriting Risk Line 1 Factors in the P/C formula.			7/30/2020

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
22	Cat Risk SG	1	2021 Spring Meeting	Modify instructions to PR027 Interrogatories that clarify how insurers with no gross exposure to earthquake or hurricane should complete the interrogatories		10/27/20 – expose the proposal for 30 day comment period 3/8/21 – The SG adopted the proposal- 2020-08-CR at the Spring National Meeting. 3/15/21 – The WG adopted this proposal. 3/23/21 – The CADTF adopted this proposal.	10/19/2020
23	P&C-RBC WG	1	2022 Summer Meeting	Evaluate R3 Adjustment for Operational Risk Charge		10/25/21 – The WG exposed Proposal- 2021-14-P (R3 Factor Adjustment) for a 30-day exposure period. 3/23/22 – The WG adopted proposal- 2021-14-P.	10/27/2020
22	Cat Risk SG	1	2022 Spring Meeting or later	Implement Wildfire Peril in the Rcat component (For Informational Purpose Only)		7/15/21 - The SG is continue studying this item. 2/22/22 - The SG adopted the proposal 2021-17-CR. 3/23/22 - The WG adopted the proposal.	3/8/2021
New Items – P&C RBC							
23	Cat Risk SG	1	Jun-22	Evaluate the possibility of modifying exemption criteria for different cat perils in the PR027 Interrogatories.		3/22/22 - The SG exposed proposal MOD 2021-17-CR for 14 day comment period.	3/22/2022
24	Cat Risk SG	2	2023 Spring Meeting or later	Evaluate the possibility of enhancing the Independent Model Instructions.			3/22/2022
25	P&C RBC WG	1	Jun-22	Remove the trend test footnote in PR033.		3/23/2022 - The WG exposed proposal 2022-02-P for 30 day comment period.	3/22/2022
Ongoing Items – Health RBC							
26	Health RBC WG	Yearly	Yearly	Evaluate the yield of the 6-month U.S. Treasury Bond as of Jan. 1 each year to determine if further modification to the 0.5% adjustment to the Comprehensive Medical, Medicare Supplement and Dental and Vision underwriting risk factors is required. Any adjustments will be rounded up to the nearest 0.5%.	HRBCWG		11/4/2021

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
27	Health RBC WG	3	Year-end-2022 RBC or later Ongoing	Continue to monitor-Evaluate the impact of Federal Health Care Law or any other development of federal level programs and actions (e.g. state reinsurance programs, associaton health plans, mandated benefits, and cross-border) for future changes that may have an impact on the Health RBC Formula.	4/13/2010 CATF Call	Adopted 2014-01H Adopted 2014-02H Adopted 2014-05H Adopted 2014-06H Adopted 2014-24H Adopted 2014-25H Adopted 2016-01-H Adopted 2017-09-CA Adopted 2017-10-H The Working Group will continually evaluate any changes to the health formula as a result of ongoing federal discussions and legislation. Discuss and monitor the development of federal level programs and the potential impact on the HRBC formula.	1/11/2018
28	Health-RBC WG	3	Year-end-2022 RBC or later	Discuss and monitor the development of federal level programs and actions and the potential impact of these changes to the HRBC formula:- ----- Development of the state reinsurance programs; ----- Association Health Plans; ----- Cross border sales	HRBCWG	Discuss and monitor the development of federal level programs and the potential impact on the HRBC formula.	1/11/2018
Carry-Over Items Currently being Addressed – Health RBC							
28	Health RBC WG	2	Year-End 2024 RBC or Later	Consider changes for stop-loss insurance or reinsurance.	AAA Report at Dec. 2006 Meeting	(Based on Academy report expected to be received at YE-2016) 2016-17-CA	
29	Health RBC WG	2	Year-end 2023 RBC or later	Review the individual factors for each health care receivables line within the Credit Risk H3 component of the RBC formula.	HRBC WG	Adopted 2016-06-H Rejected 2019-04-H Annual Statement Guidance (Year-End 2020) and Annual Statement Blanks Proposal (Year-End 2021) referred to the Blanks (E) Working Group	
30	Health RBC WG	1	Year-end 2023 or later	Conitnue to review the: premium and reserve ratio in the Health Test Ad Hoc Group in the Health Test and Establish an Ad Hoc Group to review the Health Test and review possible annual statement changes for reporting health business in the Life and P/C Blanks.	HRBCWG	Evaluate the applicability of the current Health Test in the Annual Statement instructions in today's health insurance market. Discuss ways to gather additional information for health business reported in other blanks. Referred Proposal 2022-06BWG to Blanks Working Group for exposure and consideration.	8/4/2018 2/25/2022

Priority 1 – High priority
Priority 2 – Medium priority
Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
31	Health RBC WG	1	Year-end 2023 RBC or later	<p>Work with the Academy to perform a comprehensive review of the H2 - Underwriting Risk component of the Health RBC formula including the Managed Care Credit review (Item 18 above)</p> <p>Review the Managed Care Credit calculation in the Health RBC formula - specifically Category 2a and 2b.</p> <p>Review Managed Care Credit across formulas.</p> <p>As part of the H2 - Underwriting Risk review, determine if other lines of business should include investment income and how investment income would be incorporated to the existing lines if there are changes to the structure.</p>	HRBCWG	<p>Review the Managed Care Category and the credit calculated, more specifically the credit calculated when moving from Category 0 & 1 to 2a and 2b.</p>	<p>4/23/2021</p> <p>12/3/2018</p>
32	Health RBC WG	1	Year-end 2023 or later	Review referral letter from the Operational Risk (E) Subgroup on the excessive growth charge and the development of an Ad Hoc group to charge.	HRBCWG	Review if changes are required to the Health RBC Formula	4/7/2019
33	Health RBC WG	2	Year-End 2023 or later	Consider impact of COVID-19 and pandemic risk in the Health RBC formula.	HRBCWG		7/30/2020
34	Health-RBC WG	1	Year-End 2021 or later	<p>Work with the Academy to evaluate incorporating and including investment income in the Underwriting Risk component of the Health RBC formula.</p> <p>* Develop a process for reviewing investment income in the underwriting risk factors.</p> <p>* Determine the frequency for which the adjustment should be updated.</p> <p>* Determine if other lines of business should include investment income.</p>	HRBCWG	<p>Referral Letter was sent to the Academy on Sept 21. Adopted 5/25/21 by the WG</p> <p>Added instructional changes for annual review. Adopted 2/25/22 by WG</p>	8/18/2020
34	Health RBC WG	3	Year-End 2023 or later	Discuss and determine the re-evaluation of the bond factors for the 20 designations.	Referral from Investment RBC July/2020	Working Group will use two- and five-year time horizon factors in 2020 impact analysis. Proposal 2021-09-H - Adopted 5/25/21 by the WG	9/11/2020
New Items – Health RBC							
35	Health-RBC WG	1	Year-End 2022 or later	Work with the Academy to perform a comprehensive review of the H2 – Underwriting Risk component of the Health RBC formula including the Managed Care Credit review (Item 18 above)	HRBCWG		4/23/2021
New Items – Task Force							
Ongoing Items – Task Force							
35	CADTF	2	2023	Affiliated Investment Subsidiaries Referral Ad Hoc group formed Sept. 2016	Ad Hoc Group	Structural and instructions changes will be exposed by each individual working group for comment in 2022 with an anticipated effective date of 2023.	
Carry-Over Items not Currently being Addressed – Task Force							
				All investment related items referred to the RBC Investment Risk & Evaluation (E) Working Group			1/12/2022

Priority 1 – High priority
 Priority 2 – Medium priority
 Priority 3 – Low priority

**CAPITAL ADEQUACY (E) TASK FORCE
 WORKING AGENDA ITEMS FOR CALENDAR YEAR 2022**

Capital Adequacy (E) Task Force

2022 #	Owner	2022 Priority	Expected Completion Date	Working Agenda Item	Source	Comments	Date Added to Agenda
36	CADTF	3	2021	Receivable for Securities factor		Consider evaluating the factor every 3 years. (2021, 2024, 2027, etc.) Factors are exposed for comment. Comments due May 28, 2021 for consideration on June 30th. Factors Adopted for 2021.	

Carry-Over Items Currently being Addressed – Task Force

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