



Date: 4/20/22

Virtual Meeting

LIFE RISK-BASED CAPITAL (E) WORKING GROUP

Friday, April 22, 2022

12:00 – 1:00 p.m. ET / 11:00 a.m. – 12:00 p.m. CT / 10:00 – 11:00 a.m. MT / 9:00 – 10:00 a.m. PT

ROLL CALL

| | | | |
|-----------------------------|----------------------|------------------------------|------------|
| Philip Barlow, Chair | District of Columbia | William Leung | Missouri |
| Jennifer Li | Alabama | Derek Wallman | Nebraska |
| Thomas Reedy | California | Seong-min Eom | New Jersey |
| Wanchin Chou | Connecticut | Bill Carmello | New York |
| Sean Collins | Florida | Andrew Schallhorn | Oklahoma |
| Vincent Tsang | Illinois | Mike Boerner/Rachel Hemphill | Texas |
| Mike Yanacheak/Carrie Mears | Iowa | Tomasz Serbinowski | Utah |
| Fred Andersen | Minnesota | | |

NAIC Support Staff: Dave Fleming

AGENDA

1. Discuss the American Academy of Actuaries’ (Academy) C2 Mortality Work Group Recommendation—*Philip Barlow (DC)*
 - Proposed Structural Changes Attachment 1
 - Academy Letter Attachment 2
 - Academy Report Attachment 3
2. Discuss Any Other Matters Brought Before the Working Group—*Philip Barlow (DC)*
3. Adjournment

https://naiconline.sharepoint.com/:f/r/teams/FRSRBC/LRBC/2022Materials/4_22_22Call



AMERICAN ACADEMY *of* ACTUARIES

Objective. Independent. Effective.[™]

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

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

- | | | |
|--|---|---|
| <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 checked="" type="checkbox"/> Life and Fraternal RBC Blanks |
| <input type="checkbox"/> 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
DRAFT - OPTION 1

| | Annual Statement Source | (1) Statement Value | Factor | (2) RBC Requirement |
|--|---|--|------------|---------------------------|
| <u>Individual & Industrial Life Net Amount at Risk</u> | | | | |
| (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)-(2) | Less Ordinary Life Reserves | Exhibit 5 Column 4 Line 0199999 | | |
| (5)-(4) | 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 (1)+(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) | | |
| <u>Group and Credit Life Net Amount at Risk</u> | | | | |
| (21)-(9) | Group Life In Force | Exhibit of Life Insurance Column 9 Line 23 x 1000 | | |
| (22)-(43) | Plus Credit Life In Force | Exhibit of Life Insurance Column 6 Line 23 x 1000 | | |
| (23)-(40) | Less Group FEGLI In Force | Exhibit of Life Insurance Column 4 Line 43 x 1000 | | |
| (24)-(41) | Less Group SGLI In Force | Exhibit of Life Insurance Column 4 Line 44 x 1000 | | |
| (25)-(44) | Less Credit FEGLI In Force | Exhibit of Life Insurance Column 2 Line 43 x 1000 | | |
| (26)-(45) | 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)-(42) | Less Group Life Reserves | Exhibit 5 Column 6 Line 0199999 | | |
| (29)-(42) | Less-Plus Credit Life Reserves | Exhibit 5 Column 5 Line 0199999 | | |
| (30)-(47) | Less-Plus Group Life Separate Accounts | Separate Accounts Exhibit 3 Column 4 Line 0199999 | | |
| (31)-(48) | Less-Plus Group & Credit Life Modified Coinsurance Assumed Reserves | Schedule S Part 1 Section 1 Column 12, in part ‡ | | |
| (32)-(49) | 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)+(13)+(19)-(10)-(11)-(12)-(14)-(15) (27) - (33) - (16)-(17)-(18) | 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 Amount 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)-(24) | 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)-(22) | Total Life | Lines (8)+(20)+(21) (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 |
|--|---|---|--------|---------------------------|
| <u>Individual & Industrial Life Net Amount at Risk</u> | | | | |
| (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)-(2) | Less Ordinary Life Reserves | Exhibit 5 Column 4 Line 0199999 | | |
| (5)-(4) | 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 (1)+(3)+(7)-(2)-(4)-(5)-(6) (3) - (9) | X | ‡ = |
| | Risk | | | |
| (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) | | |
| <u>Group and Credit Life Net Amount at Risk</u> | | | | |
| (21)-(9) | Group Life In Force | Exhibit of Life Insurance Column 9 Line 23 x 1000 | | |
| (22)-(13) | Plus Credit Life In Force | Exhibit of Life Insurance Column 6 Line 23 x 1000 | | |
| (23)-(10) | Less Group FEGLI In Force | Exhibit of Life Insurance Column 4 Line 43 x 1000 | | |
| (24)-(11) | Less Group SGLI In Force | Exhibit of Life Insurance Column 4 Line 44 x 1000 | | |
| (25)-(14) | Less Credit FEGLI In Force | Exhibit of Life Insurance Column 2 Line 43 x 1000 | | |
| (26)-(15) | 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)-(12) | Less Group Life Reserves | Exhibit 5 Column 6 Line 0199999 | | |
| (29)-(12) | Less Plus Credit Life Reserves | Exhibit 5 Column 5 Line 0199999 | | |
| (30)-(17) | Less Plus Group Life Separate Accounts | Separate Accounts Exhibit 3 Column 4 Line 0199999 | | |
| (31)-(18) | Less Plus Group & Credit Life Modified Coinsurance Assumed Reserves | Schedule S Part 1 Section 1 Column 12, in part ‡ | | |
| (32)-(19) | 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)+(13)+(19)-(10)-(11)-(12)-(14)-(15) (27) - (33) - (16)-(17)-(18) | 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 Amount 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)-(21) | 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)-(22) | Total Life | Lines (8)+(20)+(21) (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

| | Source | (1) RBC Amount | Tax Factor | (2) RBC Tax Effect |
|---|--|-------------------|------------|-----------------------|
| <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.

Company Name

Confidential when Completed

NAIC Company Code

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

| | | | (1) | | (2) | |
|--------------------------|---|--|------------|------------|----------------|---|
| | | | RBC Amount | Tax Factor | 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.

Company Name

Confidential when Completed

NAIC Company Code

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

| | | | (1) | | (2) | |
|----------------------|--|---|------------|------------|----------------|---|
| | | | RBC Amount | Tax Factor | RBC Tax Effect | |
| (063) | Sch BA Bond NAIC 1 | LR008 Other Long-Term Assets Column (5) Line (2) | | X 0.1575 | = | |
| (064) | Sch BA Bond NAIC 2 | LR008 Other Long-Term Assets Column (5) Line (3) | | X 0.1575 | = | |
| (065) | Sch BA Bond NAIC 3 | LR008 Other Long-Term Assets Column (5) Line (4) | | X 0.1575 | = | |
| (066) | Sch BA Bond NAIC 4 | LR008 Other Long-Term Assets Column (5) Line (5) | | X 0.1575 | = | |
| (067) | Sch BA Bond NAIC 5 | LR008 Other Long-Term Assets Column (5) Line (6) | | X 0.1575 | = | |
| (068) | Sch BA Bond NAIC 6 | LR008 Other Long-Term Assets Column (5) Line (7) | | X 0.2100 | = | |
| (069) | BA Bond Reduction - Reinsurance | LR008 Other Long-Term Assets Column (5) Line (9) | | X 0.2100 | = | † |
| (070) | BA Bond Increase - Reinsurance | LR008 Other Long-Term Assets Column (5) Line (10) | | X 0.2100 | = | |
| (071) | BA Preferred Stock NAIC 1 | LR008 Other Long-Term Assets Column (5) Line (12.3) | | X 0.1575 | = | |
| (072) | BA Preferred Stock NAIC 2 | LR008 Other Long-Term Assets Column (5) Line (13) | | X 0.1575 | = | |
| (073) | BA Preferred Stock NAIC 3 | LR008 Other Long-Term Assets Column (5) Line (14) | | X 0.1575 | = | |
| (074) | BA Preferred Stock NAIC 4 | LR008 Other Long-Term Assets Column (5) Line (15) | | X 0.1575 | = | |
| (075) | BA Preferred Stock NAIC 5 | LR008 Other Long-Term Assets Column (5) Line (16) | | X 0.1575 | = | |
| (076) | BA Preferred Stock NAIC 6 | LR008 Other Long-Term Assets Column (5) Line (17) | | X 0.2100 | = | |
| (077) | BA Preferred Stock Reduction-Reinsurance | LR008 Other Long-Term Assets Column (5) Line (19) | | X 0.2100 | = | † |
| (078) | BA Preferred Stock Increase - Reinsurance | LR008 Other Long-Term Assets Column (5) Line (20) | | X 0.2100 | = | |
| (079) | Rated Surplus Notes | LR008 Other Long-Term Assets Column (5) Line (31) | | X 0.1575 | = | |
| (080) | Rated Capital Notes | LR008 Other Long-Term Assets Column (5) Line (41) | | X 0.1575 | = | |
| (081) | BA Common Stock Affiliated | LR008 Other Long-Term Assets Column (5) Line (48.3) | | X 0.2100 | = | |
| (082) | BA Collateral Loans | LR008 Other Long-Term Assets Column (5) Line (50) | | X 0.1575 | = | |
| (083) | Other BA Assets | LR008 Other Long-Term Assets Column (5) Line (52.3) + LR018 Off-Balance Sheet Collateral Column (3) Line (17) + Line (18) | | X 0.2100 | = | |
| (084) | Other BA Assets Reduction-Reinsurance | LR008 Other Long-Term Assets Column (5) Line (54) | | X 0.2100 | = | † |
| (085) | Other BA Assets Increase - Reinsurance | LR008 Other Long-Term Assets Column (5) Line (55) | | X 0.2100 | = | |
| (086) | BA Mortgages - In Good Standing | LR009 Schedule BA Mortgages Column (6) Line (11) | | X 0.1575 | = | |
| (087) | BA Mortgages - 90 Days Overdue | LR009 Schedule BA Mortgages Column (6) Line (15) | | X 0.1575 | = | |
| (088) | BA Mortgages - In Process of Foreclosure | LR009 Schedule BA Mortgages Column (6) Line (19) | | X 0.1575 | = | |
| (089) | Reduction - Reinsurance | LR009 Schedule BA Mortgages Column (6) Line (21) | | X 0.2100 | = | † |
| (090) | Increase - Reinsurance | LR009 Schedule BA Mortgages Column (6) Line (22) | | X 0.2100 | = | |
| <u>Miscellaneous</u> | | | | | | |
| (091) | Asset Concentration Factor | LR010 Asset Concentration Factor Column (6) Line (62) Grand Total Page | | X 0.1575 | = | |
| (092) | Miscellaneous Assets | LR012 Miscellaneous Assets Column (2) Line (7) | | X 0.1575 | = | |
| (093) | Derivatives - Collateral and Exchange Traded | LR012 Miscellaneous Assets Column (2) Lines (8) + (9) + (10) | | X 0.1575 | = | |
| (094) | Derivatives NAIC 1 | LR012 Miscellaneous Assets Column (2) Line (11) | | X 0.1575 | = | |
| (095) | Derivatives NAIC 2 | LR012 Miscellaneous Assets Column (2) Line (12) | | X 0.1575 | = | |
| (096) | Derivatives NAIC 3 | LR012 Miscellaneous Assets Column (2) Line (13) | | X 0.1575 | = | |
| (097) | Derivatives NAIC 4 | LR012 Miscellaneous Assets Column (2) Line (14) | | X 0.1575 | = | |
| (098) | Derivatives NAIC 5 | LR012 Miscellaneous Assets Column (2) Line (15) | | X 0.1575 | = | |
| (099) | Derivatives NAIC 6 | LR012 Miscellaneous Assets Column (2) Line (16) | | X 0.2100 | = | |
| (100) | Miscellaneous Assets Reduction-Reinsurance | LR012 Miscellaneous Assets Column (2) Line (19) | | X 0.2100 | = | † |
| (101) | Miscellaneous Assets Increase-Reinsurance | LR012 Miscellaneous Assets Column (2) Line (20) | | X 0.2100 | = | |

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

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

Company Name

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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 | = |

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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 (8)-(20) | | X | 0.2100 | = | |
| (136) | Group & Credit Life Insurance C-2 Risk | LR025 Life Insurance Column (2) Lines (20) 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 + L(136b) 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) | | | | = | |

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CALCULATION OF AUTHORIZED CONTROL LEVEL RISK-BASED CAPITAL

Confidential when Completed

NAIC Company Code

| Company Name | Source | (1) 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-1o)</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) | _____ |

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

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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 FEGL/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) + Greatest of [Guardrail Factor * (L(43)+L(44)), Guardrail Factor * L(44b), Square Root of [(L(43) + L(44)) ² + L(44b) ² + 2 * (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.

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

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NAIC Company Code

| Company Name | Source | (1) RBC Requirement |
|--|---|---------------------------|
| <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) $C-0 + C-4a + \text{Square Root of } [(C-1o + C-3a)^2 + (C-1cs + C-3c)^2 + (C-2)^2 + (C-3b)^2 + (C-4b)^2]$ | 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 x 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.

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) | Factor | (2) |
|---|------------------------|--------|------------------------|
| <u>Individual & Industrial ULSG</u> | <u>Statement Value</u> | | <u>RBC Requirement</u> |
| | | | |

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| | | | | |
|--------------|--------------------------------|-------|-----------------------|-------|
| <u>(813)</u> | 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 _____

| | | | | |
|------------------|---------------------------|------------------------|---------------|------------------------|
| <u>Line (20)</u> | <u>Group & Credit</u> | <u>Statement Value</u> | <u>Factor</u> | <u>RBC Requirement</u> |
| | 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.

| | | | | |
|------------------|---|--------------------------------------|---------------|--------------------------------------|
| <u>Line (16)</u> | <u>Term Life</u> | <u>(1)</u> <u>Statement Value</u> | <u>Factor</u> | <u>(2)</u> <u>RBC Requirement</u> |
| | 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.

| | | | | |
|------------------|--|--------------------------------------|---------------|--------------------------------------|
| <u>Line (19)</u> | <u>All Other Life</u> | <u>(1)</u> <u>Statement Value</u> | <u>Factor</u> | <u>(2)</u> <u>RBC Requirement</u> |
| | First 500 Million | _____ | X 0.00190 = | _____ |
| | Next 24,500 Million | _____ | X 0.00075 = | _____ |
| | Over 25,000 Million | _____ | X 0.00050 = | _____ |
| | <u>Total All Other Life 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.

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

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

| Line (41) | | (1) Statement Value | Factor | (2) RBC Requirement |
|-----------|----------------------------|------------------------|-------------|------------------------|
| | <u>FEGLI/SGLI In Force</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.

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 (FGLI) 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.

| Line (813) | Individual & Industrial Life Policies with Pricing Flexibility | (1) | | (2) |
|---------------|---|-----------------|----------------|-----------------|
| | | Statement Value | Factor | 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.

| Line (16) | Term Life Policies without Pricing Flexibility | (1) | | (2) |
|-----------|---|-----------------|-------------|-----------------|
| | | Statement Value | Factor | 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.

| Line (19) | Permanent Life Policies without Pricing Flexibility | (1) | | (2) |
|-----------|---|-----------------|-------------|-----------------|
| | | Statement Value | Factor | 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.

| <u>Line (37)</u> | <u>Group & Credit Life with Remaining Rate Terms 36 Months and Under</u> | <u>(1)</u> <u>Statement Value</u> | <u>Factor</u> | <u>(2)</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.

| <u>Line (40)</u> | <u>Group & Credit Life with Remaining Rate Terms Over 36 Months</u> | <u>(1)</u> <u>Statement Value</u> | <u>Factor</u> | <u>(2)</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.

| <u>Line (41)</u> | <u>FEGLI/SGLI In Force</u> | <u>(1)</u> <u>Statement Value</u> | <u>Factor</u> | <u>(2)</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.



AMERICAN ACADEMY of ACTUARIES

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April 22, 2022

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

Via email: Dave Fleming (dfleming@naic.org)

Re: Follow Up Items from the April 7, 2022, Life LRBCWG Meeting

Dear Philip,

On behalf of the C-2 Mortality Work Group of the American Academy of Actuaries, we are providing follow up items from the April 7, 2022, Working Group meeting. This includes the following which is discussed in the attached report.

1. The likelihood of zero mortality improvement based on the trend risk distribution
2. The insured population pandemic risk distribution relative to U.S. general population COVID-19 mortality experience

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

Life Risk-Based Capital (RBC) – C-2 Mortality Risk

Regarding follow up items from the April 7, 2022, Life RBC (E) Working Group (LRBCWG) Meeting

To: National Association of Insurance Commissioners (NAIC) LRBCWG

From: American Academy of Actuaries, C-2 Mortality Work Group

Date: April 22, 2022

Contents

| | |
|---|---|
| Trend Risk Distribution and Zero Mortality Improvement..... | 2 |
| Pandemic Risk Distribution..... | 2 |

LIFE RISK-BASED CAPITAL (RBC) – C-2 MORTALITY RISK

Trend Risk Distribution and Zero Mortality Improvement

A question was asked at the April 7 meeting about where zero mortality improvement would fall within the trend risk distribution assumed in the C-2 modeling. The expected mortality improvement rates across ages 21-82 from the 2017 Society of Actuaries (SOA) mortality improvement scale are a gender-weighted overall 0.79% per year. The likelihood of experiencing zero mortality improvement varies by the length of the risk exposure period and are shown in the table below.

| Length of Risk Exposure: | 5 years | 10 years | 20 years |
|---|---------|----------|----------|
| Likelihood of zero or lower average mortality improvement over the length of the risk exposure period | 12% | 5% | 1% |

The results indicate that based on expected mortality improvement and the trend risk distribution calibrated to historical U.S. Social Security data, there is low likelihood of extended periods of zero improvement.

The C-2 Mortality Work Group has noted that the trend risk component is driven more by the volatility around the expected mortality improvement than the expected mortality improvement level. The capital factors are more insensitive to the expected mortality improvement level as highlighted in the sensitivity below which was shared in the report for the April 7 meeting.

Pandemic Risk Distribution

There was discussion at the April 7 meeting on the severity of the COVID-19 pandemic based on general population statistics relative to the pandemic catastrophe probability distribution developed by the Academy's C-2 Mortality Work Group. Generally, the comparisons made were using general population rather than insured mortality.

The C-2 Mortality Work Group believes that applying general population mortality experience to assumptions for insured population mortality experience is not appropriate for the following reasons.

- The age distribution of COVID-19 deaths is a critical variable in explaining why the general population mortality rate is much higher than what has been experience in the insured population.

LIFE RISK-BASED CAPITAL (RBC) – C-2 MORTALITY RISK

Based on U.S. Centers for Disease Control and Prevention (CDC) data by age, 75% of reported COVID-19 deaths are attributable to ages 65 and older. The life insurance industry has low net amount of risk exposure at these ages due to term life and employer group policies expiring before these older ages, and permanent life policies building higher reserves relative to face amounts at older ages.

- Insured population mortality rates are a small fraction of general population mortality rates due to the impacts of socioeconomic factors and underwriting. The overall mortality rate of the U.S. population for 2019 (pre-pandemic) was 8.7 deaths per thousand based on U.S. CDC data. This overall death rate can serve as a reference point for comparing the cumulative COVID-19 death rate of about 3.0 deaths per thousand (982,809 total deaths reported by the U.S. CDC as of April 10, 2022 relative to the U.S. population of about 330 million). On this basis, the excess deaths are 34% on a percentage basis. The insured population pandemic distribution developed for the RBC C-2 modeling provides for pandemics with excess mortality greater than 34%. At the most severe level, the insured population modeled pandemic distribution provides for excess deaths ranging from approximately 60%-110%.

The C-2 Mortality Work Group would like to clarify that the statistics used from the SOA individual and group life studies on experience during the COVID-19 pandemic include mortality from all causes including both COVID-19 and non-COVID-19 deaths. For individual life, based on modeled mortality rates, this translates to estimated excess deaths of 0.5-0.7 per thousand from the COVID-19 pandemic. For group life, based on modeled mortality rates, this translates to estimated excess deaths of 0.8-1.2 per thousand from the COVID-19 pandemic. This demonstrates that the insured population has experienced significantly lower excess deaths from all causes during the COVID -19 pandemic than the CDC data shows for the U.S population. Both of these estimated outcomes, which include COVID-19 and non-COVID-19 deaths, are within the 1.5 deaths per thousand assumed at the most severe level.

The C-2 Mortality Work Group believes that the pandemic modeling includes a distribution of potential outcomes providing for excess mortality for the insured population at least as severe as the COVID-19 pandemic. In addition, the pandemic risk component is one of three catastrophe risks included in the development of C-2 factors along with the terrorism and unknown risk components.