NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Draft date: 4/17/24

Virtual Meeting

CAPITAL ADEQUACY (E) TASK FORCE
Tuesday, April 30, 2024
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

Judith L. French, Chair	Ohio	Kathleen A. Birrane	Maryland
Doug Ommen, Vice Chair	Iowa	Grace Arnold	Minnesota
Mark Fowler	Alabama	Chlora Lindley-Myers	Missouri
Lori K. Wing-Heier	Alaska	Eric Dunning	Nebraska
Peni Itula Sapini Teo	American Samoa	Scott Kipper	Nevada
Ricardo Lara	California	D.J. Bettencourt	New Hampshire
Michael Conway	Colorado	Justin Zimmerman	New Jersey
Andrew N. Mais	Connecticut	Mike Causey	North Carolina
Karima M. Woods	District of Columbia	Jon Godfread	North Dakota
Michael Yaworsky	Florida	Glen Mulready	Oklahoma
Ann Gillespie	Illinois	Michael Wise	South Carolina
Amy L. Beard	Indiana	Cassie Brown	Texas
Vicki Schmidt	Kansas	Mike Kreidler	Washington
Sharon P. Clark	Kentucky	Nathan Houdek	Wisconsin

NAIC Support Staff: Eva Yeung

AGENDA

1. Consider Adoption of Proposal 2024-04-L (TAC for Non-admitted Affiliate)—*Philip Barlow (DC)*   Attachment A

2. Consider Adoption of Proposal 2024-05-L (BA Mortgages Omitted AVR Line)—*Philip Barlow (DC)*   Attachment B

3. Consider Adoption of Proposal 2024-08-CA (Column 12 Affiliated Investment)—*Tom Botsko (OH)*   Attachment C

4. Consider Exposure of Proposal 2024-09-CA (Underwriting Risk Investment Risk Factor)—*Steve Drutz (WA)*   Attachment D

5. Consider Adoption of Proposal 2024-10-P (PR019 Other Health Line)—*Tom Botsko (OH)*   Attachment E

6. Consider Adoption of Proposal 2024-11-P (2024 and 2025 Underwriting Risk Lines 4 and 8 Factors—*Tom Botsko (OH)*   Attachment F

7. Consider Exposure of 2024-13-CA (Receivable for Securities Factors)— *Tom Botsko (OH)*   Attachment G

8. Consider Exposure of 2024-16-CA (Revised Preamble)—*Tom Botsko (OH)*   Attachment H

9. Consider Forwarding the Referral Regarding the Issue of Asset Concentration to the Risk-Based Capital Investment Risk Evaluation (E) Working Group—*Tom Botsko (OH)*   Attachment I

10. Consider Forwarding the Referral Regarding the Issue of Geographic Concentration to the Catastrophe Risk (E) Subgroup—*Tom Botsko (OH)*   Attachment J

11. Consider Exposure of a Referral from the Statutory Accounting Principles (E) Working Group (SAPWG) Regarding the Investments in Tax Credit Structures—*Dale Bruggeman (OH)*   Attachment K

12. Discuss the Possibility of Establishing a New Subgroup to Evaluate the Non-Investment Risk Issues—*Tom Botsko (OH)*

13. Consider Adoption of Proposal 2023-17-CR (Climate Scenario Analysis)— *Wanchin Chou (CT)*   Attachment L

14. Consider Adoption of Proposal 2024-02-CA (Residual Structure PC & Health)—*Tom Botsko (OH)*   Attachment M
    a. Alternative Credit Council (ACC)—*Jiří Król*
    b. American Property Casualty Insurance Association (APCIA)—*Stephen W. Broadie*
    c. Americans for Tax Reform (ATR)—*Bryan Bashur*
    d. Florida State Hispanic Chamber of Commerce—*Julio Fuentes*
    e. National Association of Mutual Insurance Companies (NAMIC)— *Colleen W. Scheele*
    f. American Council of Life Insurers (ACLI)—*Karen Melchert*
    g. State of Connecticut Insurance Department—*Wanchin Chou*

15. Hear Updates from the SAPWG on the Potential Revisions on Schedule BA Collateral Loans Disclosures and Reporting Lines—*Julie Gann (NAIC)*

16. Discuss Any Other Matters Brought Before the Task Force—*Tom Botsko (OH)*

17. Adjournment

Capital Adequacy (E) Task Force
<u>RBC Proposal Form</u>

☐ Capital Adequacy (E) Task Force	☐ Health RBC (E) Working Group	☒ Life RBC (E) Working Group
☐ Catastrophe Risk (E) Subgroup	☐ P/C RBC (E) Working Group	☐ Longevity Risk (A/E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup	☐ Economic Scenarios (E/A) Subgroup	☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: **1/18/2024**	**FOR NAIC USE ONLY**
CONTACT PERSON: **Dave Fleming**	Agenda Item #_2024-04-L_ Year _2024_
TELEPHONE: **816-783-8121**	**DISPOSITION**
EMAIL ADDRESS: **dfleming@naic.org**	**ADOPTED:**
ON BEHALF OF: **Life Risk-Based Capital (E) Working Group**	☐ TASK FORCE (TF) _____ ☒ WORKING GROUP (WG) _04/19/2024_
NAME: **Philip Barlow, Chair**	☐ SUBGROUP (SG) _____ **EXPOSED:**
TITLE: **Associate Commissioner of Insurance**	☐ TASK FORCE (TF) _____
AFFILIATION: **District of Columbia**	☒ WORKING GROUP (WG) _01/25/2024_ ☐ SUBGROUP (SG) _____
ADDRESS: **1050 First Street, NE Suite 801**	**REJECTED:** ☐ TF ☐ WG ☐ SG _____
Washington, DC 20002	**OTHER:** ☐ DEFERRED TO _____ ☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY) _____

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

☐ Health RBC Blanks	☐ Property/Casualty RBC Blanks	☒ Life and Fraternal RBC Blanks
☐ Health RBC Instructions	☐ Property/Casualty RBC Instructions	☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula	☐ Property/Casualty RBC Formula	☐ Life and Fraternal RBC Formula
☐ OTHER _____		

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

This proposal adds a line to LR033, Calculation of Total Adjusted Capital, to address the treatment of non-admitted insurance affiliates. This treatment was adopted as part of proposal 2022-09-CA, the revised treatment of affiliated investments. This line was omitted from the life structure change but was done for 2023 by including it in an existing line. This proposal makes no change in the treatment but makes the life formula consistent with the other RBC formulas.

Additional Staff Comments:

** This section must be completed on all forms.   **Revised 2-2023**

CALCULATION OF TOTAL ADJUSTED CAPITAL
(Including Total Adjusted Capital Tax Sensitivity Test)

Attachment A

		Annual Statement Source	(1) Statement Value	Factor	(2) Adjusted Capital
	Company Amounts				
(1)	Capital and Surplus	Page 3 Column 1 Line 38		X 1.000 =	
(2)	Asset Valuation Reserve	Page 3 Column 1 Line 24.01 §		X 1.000 =	
(3)	Dividends Apportioned for Payment	Page 3 Column 1 Line 6.1, in part		X 0.500 =	
(4)	Dividends Not Yet Apportioned	Page 3 Column 1 Line 6.2, in part		X 0.500 =	
(5)	Hedging Fair Value Adjustment	Company Records		X -1.000 =	
	Life Subsidiary Company Amounts†				
(6)	Asset Valuation Reserve / ~~Carrying Value of Non-Admitted Insurance Affiliates~~	Subsidiaries' Annual Statement Page 3 Column 1 Line 24.01‡ § / ~~Included in LR044 Columns 5 and 7~~		X 1.000 =	
(7)	Dividend Liability	Subsidiaries' Annual Statement Page 3 Column 1 Line 6.1 + Line 6.2‡		X 0.500 =	
(8)	**Carrying Value of Non-Admitted Insurance Affiliates**	**Included in LR044 Columns (5) and (7)**		**X 1.000 =**	
	Property and Casualty and Other Non-U.S. Affiliated Amounts				
(9)	Non-Tabular discount and/or Alien Insurance Subsidiaries: Other	Included in Subsidiaries' Annual Statement Page 3 Column 1 Line 1 + 3‡ and/or Schedule D Part 6, Section 1 Column 8 Line 0599999 and Line 1499999, in part		X 1.000 =	
(10)	Total Adjusted Capital Before Capital Notes	Sum of Lines (1) through **(8)** less Line **(9)**			
	Credit for Capital Notes				
(11.1)	Surplus Notes	Page 3 Column 1 Line 32			
(11.2)	Limitation on Capital Notes	0.5 x [Line **(10)** - Line **(11.1)**] - Line **(11.1)**, but not less than 0			
(11.3)	Capital Notes Before Limitation	LR032 Capital Notes Before Limitation Column (4) Line (18)			
(11.4)	Credit for Capital Notes	Lesser of Column (1) Line **(11.2)** or Line **(11.3)**			
(12)	XXX/AXXX Reinsurance RBC Shortfall	LR037 XXX/AXXX Captive Reinsurance Consolidated Exhibit Column (10) Line (10)			
(13)	Total Adjusted Capital	Line **(10)** + Line **(11.4)** - Line **(12)**			
	Tax Sensitivity Test				
	Company Amounts				
(14)	Deferred Tax Asset (DTA) Value	Page 2 Column 3 Line 18.2		X -1.000 =	
(15)	Deferred Tax Liability (DTL) Value	Page 3 Column 1 Line 15.2		X 1.000 =	
	Subsidiary Amounts				
(16)	Deferred Tax Asset (DTA) Value	Company Records		X -1.000 =	
(17)	Deferred Tax Liability (DTL) Value	Company Records		X 1.000 =	
(18)	Tax Sensitivity Test: Total Adjusted Capital	Line **(13)**+**(14)**+**(15)**+(16)+(17)			
	Ex DTA ACL RBC Ratio Sensitivity Test				
(19)	Deferred Tax Asset-Company Amounts	Page 2 Column 3 Line 18.2		X 1.000 =	
(20)	Total Adjusted Capital Less Deferred Tax Asset Amounts	Line **(13)** less Line **(19)**			
(21)	Authorized Control Level RBC	LR034 Risk-Based Capital Level of Action Line (4)		X 1.000 =	
(22)	Ex DTA ACL RBC Ratio	Line **(20)** / Line **(21)**			0.000%

† Including subsidiaries owned by holding companies.
‡ Multiply statement value by percent of ownership.
§ The portion of the AVR that can be counted as capital is limited to the amount not utilized in asset adequacy testing in support of the Actuarial Opinion for reserves. ~~The amount on line (6) will also include the carrying value of non-admitted insurance affiliates.~~

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

Capital Adequacy (E) Task Force
<u>RBC Proposal Form</u>

☐ Capital Adequacy (E) Task Force	☐ Health RBC (E) Working Group	☒ Life RBC (E) Working Group
☐ Catastrophe Risk (E) Subgroup	☐ P/C RBC (E) Working Group	☐ Longevity Risk (A/E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup	☐ Economic Scenarios (E/A) Subgroup	☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: **1/18/2024**	**FOR NAIC USE ONLY**
CONTACT PERSON: **Dave Fleming**	Agenda Item # 2024-05-L
	Year 2024
TELEPHONE: **816-783-8121**	**DISPOSITION**
EMAIL ADDRESS: **dfleming@naic.org**	**ADOPTED:**
ON BEHALF OF: **Life Risk-Based Capital (E) Working Group**	☐ TASK FORCE (TF)
	☒ WORKING GROUP (WG) 04/19/2024
NAME: **Philip Barlow, Chair**	☐ SUBGROUP (SG)
	EXPOSED:
TITLE: **Associate Commissioner of Insurance**	☐ TASK FORCE (TF)
AFFILIATION: **District of Columbia**	☒ WORKING GROUP (WG) 01/25/2024
	☐ SUBGROUP (SG)
ADDRESS: **1050 First Street, NE Suite 801**	**REJECTED:**
	☐ TF ☐ WG ☐ SG
Washington, DC 20002	**OTHER:**
	☐ DEFERRED TO
	☐ REFERRED TO OTHER NAIC GROUP
	☐ (SPECIFY)

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

☐ Health RBC Blanks	☐ Property/Casualty RBC Blanks	☒ Life and Fraternal RBC Blanks
☐ Health RBC Instructions	☐ Property/Casualty RBC Instructions	☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula	☐ Property/Casualty RBC Formula	☐ Life and Fraternal RBC Formula
☐ OTHER _____		

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

This proposal adds a line to LR009 to specifically address line 44 of the Asset Valuation Reserve (AVR) Equity Component. This AVR line was not included in the LR009 changes made with the mortgage methodology change in 2013. This proposal does not include a factor but facilitates the application of one specific to this category if appropriate.

Additional Staff Comments:

_____

**   This section must be completed on all forms.   **Revised 2-2023**

SCHEDULE BA MORTGAGES

	Annual Statement Source	(1) Book / Adjusted Carrying Value	(2) Involuntary Reserve Adjustment †	(3) RBC Subtotal	(4) Cumulative Writedowns ‡	(5) Average Factor	(6) RBC Requirement
In Good Standing							
(1) Insured or Guaranteed	AVR Equity Component Column 1 Line 43 + Line 45				XXX	X 0.0014 =	
(2) **Residential - All Other**	**AVR Equity Component Column 1 Line 44**				**XXX**	**X TBD =**	
(3) Unaffiliated Mortgages with Covenants	AVR Equity Component Column 1 Line 57				XXX	X * =	
(4) Unaffiliated Mortgages - Defeased with Government Securities	AVR Equity Component Column 1 Line 58				XXX	X 0.0090 =	
(5) Unaffiliated Mortgages - Primarily Senior	AVR Equity Component Column 1 Line 59				XXX	X 0.0175 =	
(6) Unaffiliated Mortgages - All Other	AVR Equity Component Column 1 Line 60				XXX	X 0.0300 =	
(7) Affiliated Mortgages - Category CM1	AVR Equity Component Column 1 Line 38				XXX	X 0.0090 =	
(8) Affiliated Mortgages - Category CM2	AVR Equity Component Column 1 Line 39				XXX	X 0.0175 =	
(9) Affiliated Mortgages - Category CM3	AVR Equity Component Column 1 Line 40				XXX	X 0.0300 =	
(10) Affiliated Mortgages - Category CM4	AVR Equity Component Column 1 Line 41				XXX	X 0.0500 =	
(11) Affiliated Mortgages - Category CM5	AVR Equity Component Column 1 Line 42				XXX	X 0.0750 =	
(12) Total In Good Standing	Sum of Lines (1) through (11)						
90 Days Overdue, Not in Process of Foreclosure							
(13) Insured or Guaranteed 90 Days Overdue	AVR Equity Component Column 1 Line 47 + Line 49				**XXX**	**X 0.0027 =**	
(14) All Other 90 Days Overdue - Unaffiliated	AVR Equity Component Column 1 Line 61				**XXX**	**X 0.1100 =**	
(15) All Other 90 Days Overdue - Affiliated	AVR Equity Component Column 1 Line 48 + Line 50				**XXX**	**X 0.1100 =**	
(16) Total 90 Days Overdue, Not in Process of Foreclosure	Lines (13) + (14) + (15)						
In Process of Foreclosure							
(17) Insured or Guaranteed in Process of Foreclosure	AVR Equity Component Column 1 Line 52 + Line 54				**XXX**	**X 0.0054 =**	
(18) All Other in Process of Foreclosure - Unaffiliated	AVR Equity Component Column 1 Line 62				**XXX**	**X 0.1300 =**	
(19) All Other in Process of Foreclosure - Affiliated	AVR Equity Component Column 1 Line 53 + Line 55				**XXX**	**X 0.1300 =**	
(20) Total In Process of Foreclosure	Lines (17) + (18) + (19)						
(21) Total Schedule BA Mortgages (pre-MODCO/Funds Withheld)	Lines (12) + (16) + (20)						
(22) Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	Company Records (enter a pre-tax amount)						
(23) Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	Company Records (enter a pre-tax amount)						
(24) Total Schedule BA Mortgages (including MODCO/Funds Withheld.)	Lines (21) - (22) + (23)						

† Involuntary reserves are reserves that are held as an offset to a particular asset that is clearly a troubled asset and are included on Page 3 Line 25 of the Annual Statement.

‡ Cumulative writedowns include the total amount of writedowns, non-admissions, and involuntary reserves that have been taken or established with respect to a particular mortgage.

* This will be calculated as Column (6) divided by Column (3).

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

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
☐ Variable Annuities Capital. & Reserve ☐ P/C RBC (E) Working Group ☐ RBC Investment Risk & Evaluation
  (E/A) Subgroup (E) Working Group

DATE: _____**2/8/2024**_____	**FOR NAIC USE ONLY**
CONTACT PERSON: ___**Eva Yeung**___	Agenda Item #_ 2024-08-CA_ Year _____2024_____
TELEPHONE: ___**816-783-8407**___	**DISPOSITION**
EMAIL ADDRESS: ___**eyeung@naic.org**___	**ADOPTED:** ☐ TASK FORCE (TF) _____
ON BEHALF OF: ___**Capital Adequacy (E) Task Force**___	☐ WORKING GROUP (WF) _____
NAME: ___**Tom Botsko**___	☐ SUBGROUP (SG) _____
TITLE: ___**Chair**___	**EXPOSED:** ☒ TASK FORCE (TF) ___3/17/2024___
AFFILIATION: ___**Ohio Department of Insurance**___	☐ WORKING GROUP (WG) _____
ADDRESS: ___**50 West Town Street, Suite 300**___	☐ SUBGROUP (SG) _____
___**Columbus, OH 43215**___	**REJECTED:** ☐ TF ☐ WG ☐ SG _____
	OTHER: ☐ DEFERRED TO _____ ☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY) _____

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

☒ Health RBC Blanks ☒ Property/Casualty RBC Blanks ☐ Life and Fraternal RBC Blanks
☐ Health RBC Instructions ☐ Property/Casualty RBC Instructions ☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula ☐ Property/Casualty RBC Formula ☐ Life and Fraternal RBC Formula
☐ OTHER _ _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

This proposal removes the reference of "H0 Component" and "R0 Component" from the Column 12 heading on pages XR002 and PR003, respectively. The "H0" and "R0" references are misleading in that only affiliate types 1-2 flow into H0 and R0, while affiliate types 3-9 flow into H1 and R2.

Additional Staff Comments:

_____

** This section must be completed on all forms. **Revised 2-2023**

XR002

DETAILS FOR AFFILIATED STOCKS

	(1) Name of Affiliate	(2) Affil Type	(3) NAIC Company Code or Alien ID Number	(4) Affiliate's RBC after Covariance Before Basic Operational Risk XR025 Line (41) PR032 Line (60) LR031 Line (69) + (73)	(5) Book/Adjusted Carrying Value (Statement Value) of Affiliate's Common Stock	(6) Valuation Basis of Col (5) M - Market Value after any "discount" A - All Other	(7) Total Value of Affiliate's Outstanding Common Stock	(8) Statutory Surplus of Affiliate Subject to RBC (Adjusted for % Owned)	(9) Book/Adjusted Carrying Value (Statement Value) of Affiliate's Preferred Stock	(10) Total Value of Affiliate's Outstanding Preferred Stock	(11) Percent Owned *	(12) RBC Required (H0 Component)	(13) Market Value Excess Component Affiliated Common Stock RBC Required (H1 Component)	
(01)											100.000%	0	0	01
(02)											100.000%	0	0	02
(03)											100.000%	0	0	03
(04)											100.000%	0	0	04
(05)											100.000%	0	0	05
(06)											100.000%	0	0	06
(07)											100.000%	0	0	07
(08)											100.000%	0	0	08
(09)											100.000%	0	0	09
(10)											100.000%	0	0	00

PR003

DETAILS FOR AFFILIATED STOCKS   PR003

	(1) Name of Affiliate	(2) Affil Type	(3) NAIC Company Code or Alien ID Number	(4) Affiliate's RBC After Covariance before Basic Operational Risk LR031 L69 + L73 PR032 L60 XR025 L41	(5) Book/Adjusted Carrying Value (statement value) of Affiliate's Common Stock	(6) Valuation Basis of Column (5) M - Market Value after any "discount" A - All Other	(7) Total Value of Affiliate's Outstanding Common Stock	(8) Statutory Surplus of Affiliate Subject to RBC (Adjusted for % Owned)	(9) Book/Adjusted Carrying Value (statement value) of Affiliate's Preferred Stock	(10) Total Value of Affiliate's Outstanding Preferred Stock	(11) Percent Owned*	(12) RBC Required (R0 Component)	(13) Market Value Excess Component Affiliate Common Stock RBC Required (R2 Component)	
0000001											100.000%	0	0	
0000002											100.000%	0	0	
0000003											100.000%	0	0	
0000004											100.000%	0	0	
0000005											100.000%	0	0	
0000006											100.000%	0	0	
0000007											100.000%	0	0	
0000008											100.000%	0	0	
0000009											100.000%	0	0	
0000010											100.000%	0		

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   ☐ P/C RBC (E) Working Group   ☐ Longevity Risk (A/E) Subgroup

☐ Variable Annuities Capital. & Reserve   ☐ Economic Scenarios (E/A) Subgroup   ☐ RBC Investment Risk & Evaluation
   (E/A) Subgroup   (E) Working Group

DATE: 2-12-24	**FOR NAIC USE ONLY**
CONTACT PERSON: Crystal Brown	Agenda Item # 2024-09-CA Year 2024
TELEPHONE: 816-783-8146	**DISPOSITION**
EMAIL ADDRESS: cbrown@naic.org	**ADOPTED:** ☐ TASK FORCE (TF) ☐ WORKING GROUP (WG) ☐ SUBGROUP (SG)
ON BEHALF OF: Health Risk-Based Capital (E) Working Group	**EXPOSED:**
NAME: Steve Drutz	☐ TASK FORCE (TF)
TITLE: Chief Financial Analyst/Chair	☒ WORKING GROUP (WG) Due 3/25/24 ☐ SUBGROUP (SG)
AFFILIATION: WA Office of Insurance Commissioner	**REJECTED:**
ADDRESS: 5000 Capitol Blvd SE	☐ TF ☐ WG ☐ SG
Tumwater, WA 98501	**OTHER:** ☐ DEFERRED TO ☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY)

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

☒ Health RBC Blanks   ☒ Property/Casualty RBC Blanks   ☒ Life and Fraternal RBC Blanks

☒ Health RBC Instructions   ☒ Property/Casualty RBC Instructions   ☒ Life and Fraternal RBC Instructions

☐ Health RBC Formula   ☐ Property/Casualty RBC Formula   ☐ Life and Fraternal RBC Formula

☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

Annual update of the underwriting factors for Comprehensive Medical, Medicare Supplement and Dental & Vision for investment income adjustment.

Update the underwriting factors for Comprehensive Medical, Medicare Supplement and Dental & Vision on pages XR013, LR019, LR020, PR019 and PR020 for the investment income adjustment.

Additional Staff Comments:

_____

** **This section must be completed on all forms.**   **Revised 2-2023**

2024 Investment Yield for Investment Income Adjustment
https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield

Date	1 Mo	2 Mo	3 Mo	4 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
01/02/2024	5.55	5.54	5.46	5.41	5.24	4.80	4.33	4.09	3.93	3.95	3.95	4.25	4.08
01/03/2024	5.54	5.54	5.48	5.41	5.25	4.81	4.33	4.07	3.90	3.92	3.91	4.21	4.05
01/04/2024	5.56	5.48	5.48	5.41	5.25	4.85	4.38	4.14	3.97	3.99	3.99	4.30	4.13
01/05/2024	5.54	5.48	5.47	5.41	5.24	4.84	4.40	4.17	4.02	4.04	4.05	4.37	4.21
01/08/2024	5.54	5.48	5.49	5.39	5.24	4.82	4.36	4.11	3.97	3.99	4.01	4.33	4.17
01/09/2024	5.53	5.46	5.47	5.38	5.24	4.82	4.36	4.09	3.97	4.00	4.02	4.33	4.18
01/10/2024	5.53	5.46	5.46	5.39	5.23	4.82	4.37	4.10	3.99	4.01	4.04	4.35	4.20
01/11/2024	5.54	5.47	5.46	5.38	5.22	4.75	4.26	4.02	3.90	3.95	3.98	4.32	4.18
01/12/2024	5.55	5.47	5.45	5.37	5.16	4.65	4.14	3.92	3.84	3.91	3.96	4.32	4.20
01/16/2024	5.54	5.47	5.45	5.37	5.18	4.70	4.22	4.02	3.95	4.01	4.07	4.43	4.30
01/17/2024	5.54	5.47	5.47	5.40	5.20	4.80	4.34	4.12	4.02	4.07	4.10	4.42	4.31
01/18/2024	5.53	5.48	5.45	5.39	5.20	4.80	4.34	4.13	4.04	4.10	4.14	4.48	4.37
01/19/2024	5.54	5.47	5.45	5.39	5.21	4.84	4.39	4.18	4.08	4.12	4.15	4.47	4.36
01/22/2024	5.53	5.47	5.46	5.39	5.22	4.83	4.37	4.14	4.03	4.07	4.11	4.44	4.32
01/23/2024	5.53	5.46	5.45	5.38	5.21	4.81	4.31	4.16	4.06	4.11	4.14	4.48	4.38
01/24/2024	5.52	5.44	5.44	5.40	5.22	4.83	4.34	4.19	4.06	4.14	4.18	4.52	4.41
01/25/2024	5.54	5.48	5.44	5.39	5.19	4.76	4.28	4.12	4.01	4.07	4.14	4.49	4.38
01/26/2024	5.54	5.45	5.44	5.39	5.19	4.78	4.34	4.15	4.04	4.10	4.15	4.49	4.38
01/29/2024	5.53	5.46	5.42	5.37	5.19	4.76	4.29	4.10	3.97	4.02	4.08	4.42	4.31
01/30/2024	5.53	5.47	5.42	5.38	5.19	4.80	4.36	4.14	4.00	4.03	4.06	4.40	4.28
01/31/2024	5.53	5.46	5.42	5.40	5.18	4.73	4.27	4.05	3.91	3.95	3.99	4.34	4.22

American Academy of Actuaries

February 2, 2023

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

Re: Request for Additional Analysis to Incorporate Investment Income into the Underwriting
Risk Component of the Health Risk-Based Capital (HRBC) Formula

Dear Mr. Drutz:

On behalf of the American Academy of Actuaries[1] Health Solvency Subcommittee (the
subcommittee), I am pleased to provide this response letter to the NAIC's Health Risk-Based
Capital (E) Working Group request to provide additional investment return scenarios within the
subcommittee's summary of the Investment Income Adjusted Health H2 Experience Fluctuation
Risk Factors. These factors are included within the table below.

Investment Income Adjusted Tiered Risk-Based Capital (RBC) Factors

Assumed Investment Return	Comprehensive Medical (CM)	Medicare Supplement	Dental/Vision
High Tier (i.e., less than $3Million (M) or less than $25M)			
0.0%	15.00%	10.50%	12.00%
3.5%	14.53%	10.01%	11.63%
4.0%	14.47%	9.94%	11.58%
4.5%	14.40%	9.87%	11.53%
5.0%	14.34%	9.80%	11.48%
5.5%	14.27%	9.73%	11.43%
6.0%	14.21%	9.67%	11.38%
Low Tier			
0.0%	9.00%	6.70%	7.60%
3.5%	8.56%	6.23%	7.25%
4.0%	8.50%	6.16%	7.20%
4.5%	8.44%	6.09%	7.16%
5.0%	8.38%	6.03%	7.11%
5.5%	8.32%	5.96%	7.06%
6.0%	8.25%	5.90%	7.01%

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[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.

Please note that the subcommittee updated the claims completion pattern assumptions slightly in this analysis. The impact of this change on the RBC factors is approximately 0.01%. Otherwise, the methodology is unchanged.

<div align="center">*****</div>

If you have any questions or would like to discuss further, please contact Matthew Williams, the Academy's senior health policy analyst, at williams@actuary.org.
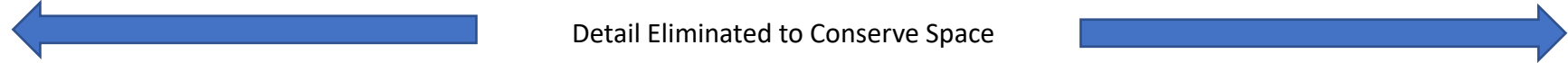
Sincerely,

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

Cc: Crystal Brown, Senior Health RBC Analyst & Education Coordinator, Financial Regulatory Affairs, NAIC

Health Instructions
Page XR013, Line 13

Detail Eliminated to Conserve Space

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 5.05%.

	$0 – $3 Million	$3 – $25 Million	Over $25 Million
Comprehensive (Hospital & Medical) Individual & Group	0.142734	0.142734	0.08328
Medicare Supplement	0.097380	0.0596603	0.0596603
Dental & Vision	0.11438	0.070611	0.070611
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 (Hospital & Medical) individual & group, 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 5.50% adjustment is needed. Any adjustments will be rounded up to the nearest 0.5%.

P/C Instructions
Page PR020, Line 10

Detail Eliminated to Conserve Space

Line (10) Underwriting Risk Factor
A weighted average factor based on the amount reported in Line (5), Underwriting Risk Revenue.

	$0 - $3 Million	$3-$25 Million	Over $25 Million
Comprehensive Medical	0.142734	0.142734	0.08328
Medicare Supplement	0.097380	0.0596603	0.0596603
Dental & Vision	0.11438	0.070611	0.070611
Stand-Alone Medicare Part D Coverage	0.251	0.251	0.151

Life Instructions

LR020, Line 10

← Detail Eliminated to Conserve Space →
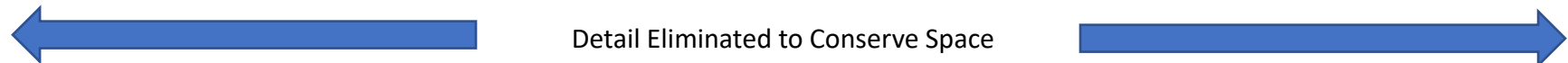
<u>Line (10) Underwriting Risk Factor</u>
A weighted average factor based on the amount reported in Line (5), Underwriting Risk Revenue. The factors for Column 1-3 have incorporated investment income.

	$0 - $3 Million	$3 - $25 Million	Over $25 Million
Comprehensive Medical	0.142<u>27</u>~~34~~	0.142<u>27</u>~~34~~	0.083<u>2</u>~~8~~
Medicare Supplement	0.097<u>38</u>~~0~~	0.0<u>596</u>~~603~~	0.0<u>596</u>~~603~~
Dental	0.114<u>3</u>~~8~~	0.070<u>6</u>~~11~~	0.070<u>6</u>~~11~~
Stand-Alone Medicare Part D Coverage	0.251	0.251	0.151

UNDERWRITING RISK

Experience Fluctuation Risk

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

TIERED RBC FACTORS*						
	Comprehensive (Hospital & Medical) - Individual & Group	Medicare Supplement	Dental & Vision	Stand-Alone Medicare Part D Coverage	Other Health	Other Non-Health
$0 - $3 Million	**0.142734**	**0.09738**	**0.11438**	0.251	0.130	0.130
$3 - $25 Million	**0.142734**	**0.0596603**	**0.070611**	0.251	0.130	0.130
Over $25 Million	**0.08328**	**0.0596603**	**0.070611**	0.151	0.130	0.130

ALTERNATE RISK CHARGE**						
** The Line (18) Alternate Risk Charge is calculated as follows:						
LESSER OF:	$1,500,000 or 2 x Maximum Individual Risk	$50,000 or 2 x Maximum Individual Risk	$50,000 or 2 x Maximum Individual Risk	$150,000 or 6 x Maximum Individual Risk	$50,000 or 2 x Maximum Individual Risk	N/A

Denotes items that must be manually entered on filing software.

† The Annual Statement Sources are found on page XR014.

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

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

UNDERWRITING RISK - PREMIUM RISK FOR COMPREHENSIVE MEDICAL, MEDICARE SUPPLEMENT AN

(Experience Fluctuation Risk in Life RBC Formula)

		(1) Comprehensive Medical	(2) Medicare Supplement	(3) Dental & Vision	(4) Stand-Alone Medicare Part D Coverage	(5) TOTAL
(1.1)	Premium – Individual	0	0	0	0	0
(1.2)	Premium – Group	0	0	0	0	0
(1.3)	Premium – Total = Line (1.1) + Line (1.2)	0	0	0	0	0
(2)	Title XVIII-Medicare†	0	XXX	XXX	XXX	0
(3)	Title XIX-Medicaid†	0	XXX	XXX	XXX	0
(4)	Other Health Risk Revenue†	0	XXX	0	0	0
(5)	Underwriting Risk Revenue = Lines (1.3) + (2) + (3) + (4)	0	0	0	0	0
(6)	Net Incurred Claims	0	0	0	0	0
(7)	Fee-for-Service Offset†	0	XXX	0	0	0
(8)	Underwriting Risk Incurred Claims = Line (6) – Line (7)	0	0	0	0	0
(9)	Underwriting Risk Claims Ratio = Line (8) / Line (5)	0.0000	0.0000	0.0000	0.000	XXX
(10.1)	Underwriting Risk Factor for Initial Amounts Of Premium‡	0.142734	0.09738	0.11438	0.251	XXX
(10.2)	Underwriting Risk Factor for Excess of Initial Amount‡	0.08328	0.0596603	0.070611	0.151	XXX
(10.3)	Composite Underwriting Risk Factor	0.0000	0.0000	0.0000	0.000	XXX
(11)	Base Underwriting Risk RBC = Line (5) x Line (9) x Line (10.3)	0	0	0	0	0
(12)	Managed Care Discount Factor = PR021 Line (12)	0.0000	0.0000	0.0000	0.000	XXX
(13)	Base RBC After Managed Care Discount = Line (11) x Line (12)	0	0	0	0	0
(14)	RBC Adjustment For Individual =					
	[{Line(1.1) x 1.2 + Line (1.2)} / Line (1.3)] x Line (13)§	0	0	0	0	0
(15)	Maximum Per-Individual Risk After Reinsurance†	0	0	0	0	XXX
(16)	Alternate Risk Charge*	0	0	0	0	0
(17)	Net Alternate Risk Charge£	0	0	0	0	0
(18)	Net Underwriting Risk RBC (Maximum of Line (14) or Line (17))	0	0	0	0	0

†   Source is company records unless already included in premiums.

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

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

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

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

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

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

UNDERWRITING RISK

Experience Fluctuation Risk

	Line of Business	(1) Comprehensive Medical	(2) Medicare Supplement	(3) Dental & Vision	(4) Stand-Alone Medicare Part D Coverage	(5) Total
(1.1)	Premium – Individual					
(1.2)	Premium – Group					
(1.3)	Premium – Total = Line (1.1) + Line (1.2)					
(2)	Title XVIII-Medicare†		XXX			
(3)	Title XIX-Medicaid†		XXX			
(4)	Other Health Risk Revenue†		XXX			
(5)	Underwriting Risk Revenue = Lines (1.3) + (2) + (3) + (4)					
(6)	Net Incurred Claims					
(7)	Fee-for-Service Offset†		XXX			
(8)	Underwriting Risk Incurred Claims = Line (6) – Line (7)					
(9)	Underwriting Risk Claims Ratio = Line (8) / Line (5)					XXX
(10.1)	Underwriting Risk Factor for Initial Amounts Of Premium‡	0.142734	0.09738	0.11438	0.251	XXX
(10.2)	Underwriting Risk Factor for Excess of Initial Amount‡	0.08328	0.0596603	0.070611	0.151	XXX
(10.3)	Composite Underwriting Risk Factor					XXX
(11)	Base Underwriting Risk RBC = Line (5) x Line (9) x Line (10.3)					
(12)	Managed Care Discount Factor = LR022 Line (17)					XXX
(13)	Base RBC After Managed Care Discount = Line (11) x Line (12)					
(14)	RBC Adjustment For Individual = [{Line(1.1) x 1.2 + Line (1.2)} / Line (1.3)] x Line (13)§					
(15)	Maximum Per-Individual Risk After Reinsurance†					XXX
(16)	Alternate Risk Charge*					
(17)	Net Alternate Risk Charge£					
(18)	Net Underwriting Risk RBC (Maximum of Line (14) or Line (17))					

†   Source is company records unless already included in premiums.

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

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

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

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

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

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

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

☐ Variable Annuities Capital. & Reserve (E/A) Subgroup   ☒ P/C RBC (E) Working Group   ☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: 1/10/24	**FOR NAIC USE ONLY**
CONTACT PERSON: Eva Yeung	Agenda Item # 2024-10-P Year 2024
TELEPHONE: 816-783-8407	**DISPOSITION**
EMAIL ADDRESS: eyeung@naic.org	**ADOPTED:** ☐ TASK FORCE (TF) ☒ WORKING GROUP (WF) 04/24/2024 ☐ SUBGROUP (SG)
ON BEHALF OF: P/C RBC (E) Working Group	**EXPOSED:**
NAME: Tom Botsko	☐ TASK FORCE (TF) ☒ WORKING GROUP (WG) 03/17/24 ☐ SUBGROUP (SG)
TITLE: Chair	**REJECTED:**
AFFILIATION: Ohio Department of Insurance	☐ TF ☐ WG ☐ SG
ADDRESS: 50 West Town Street, Suite 300	**OTHER:** ☐ DEFERRED TO
Columbus, OH 43215	☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY)

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

☐ Health RBC Blanks   ☒ Property/Casualty RBC Blanks   ☐ Life and Fraternal RBC Blanks

☐ Health RBC Instructions   ☐ Property/Casualty RBC Instructions   ☐ Life and Fraternal RBC Instructions

☐ Health RBC Formula   ☐ Property/Casualty RBC Formula   ☐ Life and Fraternal RBC Formula

☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

This proposal included the following changes:

1) Add "in part" to the Line 25 Annual Statement Source.
2) Update Column 1, Line 25 to "Company Record".

The reason for the change is to eliminate the double-counting issue for those companies that have stop-loss premium as the stop loss premium is expected to be entered on Line 9 of PR019.

Additional Staff Comments:

** This section must be completed on all forms.   **Revised 2-2023**

HEALTH PREMIUMS PR019

		Annual Statement Source	(1) Statement Value	Factor	(2) RBC Requirement
	Medical Insurance Premium - Individual				
(1)	Comprehensive (Medical and Hospital)	Earned Premium (Schedule H Part 1 Column 3 Line 2)	0	†	XXX
(2)	Medicare Supplement	Earned Premium (Schedule H Part 1 Column 7 Line 2 in part)	0	†	XXX
(3)	Dental & Vision	Earned Premium (Schedule H Part 1 Columns 9 + 11 Line 2 in part)	0	†	XXX
(3.1)	Stand-Alone Medicare Part D Coverage	Earned Premium (Schedule H Part 1 Line 2 in part)	0	†	XXX
(3.2)	Supplemental Benefits within Stand-Alone Part D Coverage (Claims Incurred)	Company Records	0	0.500	0
(3.3)	Medicaid Pass-Through Payments Reported as Premium	Company Records	0	0.020	0
(4)	Hospital Indemnity and Specified Disease	Earned Premium (Schedule H Part 1 Line 2 in part)	0	0.035 *	0
(5)	AD&D (Maximum Retained Risk Per Life 0)	Earned Premium (Schedule H Part 1 Line 2 in part)	0	‡	0
(6)	Other Accident	Earned Premium (Schedule H Part 1 Line 2 in part)	0	0.050	0
	Medical Insurance Premium - Group and Credit				
(7)	Comprehensive (Medical and Hospital)	Earned Premium (Schedule H Part 1 Column 5 Line 2)	0	†	XXX
(8)	Dental & Vision	Earned Premium (Schedule H Part 1 Columns 9 + 11 Line 2 in part)	0	†	XXX
(9)	Stop Loss and Minimum Premium	Earned Premium (Schedule H Part 1 Line 2 in part)	0	¥	0
(10)	Medicare Supplement	Earned Premium (Schedule H Part 1 Column 7 Line 2 in part)	0	†	XXX
(10.1)	Stand-Alone Medicare Part D Coverage (see instructions for limits)	Earned Premium (Schedule H Part 1 Line 2 in part)	0	†	XXX
(10.2)	Supplemental benefits within Stand-Alone Part D Coverage (Claims Incurred)	Company Records	0	0.500	0
(10.3)	Medicaid Pass-Through Payments Reported as Premium	Company Records	0	0.020	0
(11)	Hospital Indemnity and Specified Disease	Earned Premium (Schedule H Part 1 Line 2 in part)	0	0.035 *	0
(12)	AD&D (Maximum Retained Risk Per Life 0)	Earned Premium (Schedule H Part 1 Line 2 in part)	0	‡	0
(13)	Other Accident	Earned Premium (Schedule H Part 1 Line 2 in part)	0	0.050	0
(14)	Federal Employee Health Benefit Plan	Earned Premium (Schedule H Part 1 Column 13, Line 2)	0	0.000	0
	Disability Income Premium				
(15)	Noncancellable Disability Income - Individual Morbidity	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	0
(16)	Other Disability Income - Individual Morbidity	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	0
(17)	Disability Income - Credit Monthly Balance Plans	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	
(18)	Disability Income - Group Long-Term	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	0
(19)	Disability Income - Credit Single Premium with Additional Reserve	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	0
(20)	Disability Income - Credit Single Premium without Additional Reserve	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	0
(21)	Disability Income - Group Short-Term	Earned Premium (Schedule H Part 1 Column 21 Line 2 in part)	0	‡	0
	Long-Term Care				
(22)	Noncancellable Long-Term Care Premium - Rate Risk**	Earned Premium (Schedule H Part 1 Column 23 Line 2 in part)	0	0.100	0
(23)	Other Long-Term Care Premium ‡ ‡	Earned Premium (Schedule H Part 1 Column 23 Line 2 in part)	0	0.000	0 ‡ ‡
	Health Premium with Limited Underwriting Risk				
(24)	ASC Business with Premium Revenue	Earned Premium (Schedule H Part 1 Line 2 in part)	0	0.000	0
	Other Health				
(25)	Other Health	Earned Premium (Schedule H Part 1 Column 25 Line 2 **in part**)	**0**	0.120	0
(26)	Total Earned Premiums	Sum of Lines (1) through (25)	0		0
	C(1), L(26) should equal Schedule H Part 1 Column 1 Line 2				
(27)	Additional Reserves for Credit Disability Plans	Company records	0	§	
(28)	Additional Reserves for Credit Disability Plans, prior year	Company records	0	§	

† The premium amounts in these lines are transferred to PR020 Underwriting Risk – Premium Risk for Comprehensive Medical, Medicare Supplement, Dental & Vision and Stand-Alone Medicare Part D Coverage Lines (1.1) and (1.2) for the calculation of risk-based capital. The premium amounts are included here to assist in the balancing of total health premium. If managed care arrangements have been entered into, the company may also complete PR021 Underwriting Risk – Managed Care Credit. In which case, the company will also need to complete PR012 Health Credit Risk in the formula.
If there are amounts in any of lines (1), (2), (3), (7), (8) or (10) on page PR019 Health Premiums, the company will also be directed to complete the Health Administrative Expense portion of PR023.

‡ The two tiered calculation is illustrated in the risk-based capital instructions for PR019 Health Premiums.

‡ ‡ The balance of the RBC requirement for Long Term Care - Morbidity Risk is calculated on Page PR023. The premium is shown to allow totals to check to Schedule H.

* If there is premium included on either or both of these lines, the RBC value in Column (2) will include 3.5% of such premium and $50,000 (included in the line with the larger premium).

** The factor applies to all Noncancellable premium.

§ These amounts are used to adjust the premium base for single premium credit disability plans that carry additional tabular reserves.

¥ A factor of .350 will be applied to the first $25,000,000 in Column (1), Line (9) and a factor of .250 will be applied to the remaining premium in excess of $25,000,000.

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

Capital Adequacy (E) Task Force
<u>RBC Proposal Form</u>

☐ 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

☐ Variable Annuities Capital. & Reserve   ☒ P/C RBC (E) Working Group   ☐ RBC Investment Risk & Evaluation
    (E/A) Subgroup   (E) Working Group

	FOR NAIC USE ONLY
DATE: **1/10/24**	**FOR NAIC USE ONLY**
CONTACT PERSON: **Eva Yeung**	Agenda Item # _2024-11-P_ Year **2024 & 2025**
TELEPHONE: **816-783-8407**	**DISPOSITION**
EMAIL ADDRESS: **eyeung@naic.org**	**ADOPTED:** ☐ TASK FORCE (TF)
ON BEHALF OF: **P/C RBC (E) Working Group**	☒WORKING GROUP (WF) 04/25/2024 ☐ SUBGROUP (SG)
NAME: **Tom Botsko**	**EXPOSED:** ☐ TASK FORCE (TF)
TITLE: **Chair**	☒WORKING GROUP (WG) 3/17/24 ☐ SUBGROUP (SG)
AFFILIATION: **Ohio Department of Insurance**	**REJECTED:** ☐ TF ☐ WG ☐ SG
ADDRESS: **50 West Town Street, Suite 300**	**OTHER:** ☐ DEFERRED TO
Columbus, OH 43215	☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY)

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

☐ Health RBC Blanks   ☒ Property/Casualty RBC Blanks   ☐ Life and Fraternal RBC Blanks

☐ Health RBC Instructions   ☐ Property/Casualty RBC Instructions   ☐ Life and Fraternal RBC Instructions

☐ Health RBC Formula   ☐ Property/Casualty RBC Formula   ☐ Life and Fraternal RBC Formula

☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

The Factors are developed based on the 2023 American Academy of Actuaries (Academy) Report for "*Update to Property and Casualty Risk-Based Capital Underwriting Factors and Investment Income Adjustment Factors*" At the 2024 Spring National Meeting, the Working Group agreed to expose the following for a 30-day public comment period ending April 16:

1) Reserve Factors: 2024 Reporting - 50% indicated change with capped international and product liability lines for 2024.
                         2025 Reporting – 100% indicated change with capped international and product liability lines for 2025.

2) Premium Factors: 2024 Reporting - 50% indicated change with capped Financial Mortgage Guaranty line for 2024.
                         2025 Reporting – 100% indicated change with capped Financial Mortgage Guaranty line for 2025.

Additional Staff Comments:

** This section must be completed on all forms.   **Revised 2-2023**

50% Indicated Change with Capped International and Product Liability in 2024
100% Indicated Change with Capped International and Product Liability in 2025

Col.	Line of Business	2024 Factor	2025 Factor		Col.	Line of Business	2024 Factor	2025 Factor
	PR017 Underwriting Risk – Reserves Proposed Line (4), Industry Loss & Expense RBC Factors					**PR017 Underwriting Risk – Reserves** Proposed Line (8), Adjustment for Investment Income		
(1)	H/F	0.220	0.226		(1)	H/F	0.945	0.951
(2)	PPA	0.192	0.205		(2)	PPA	0.933	0.937
(3)	CA	0.318	0.360		(3)	CA	0.919	0.926
(4)	WC	0.363	0.382		(4)	WC	0.807	0.783
(5)	CMP	0.485	0.475		(5)	CMP	0.887	0.898
(6)	MPL Occurrence	0.327	0.271		(6)	MPL Occurrence	0.863	0.861
(7)	MPL Claims Made	0.224	0.172		(7)	MPL Claims Made	0.890	0.896
(8)	SL	0.353	0.401		(8)	SL	0.887	0.884
(9)	OL	0.514	0.496		(9)	OL	0.858	0.864
(10)	Fidelity/Surety	0.479	0.586		(10)	Fidelity/Surety	0.924	0.908
(11)	Special Property	0.259	0.272		(11)	Special Property	0.960	0.954
(12)	Auto Physical Damage	0.146	0.137		(12)	Auto Physical Damage	0.977	0.978
(13)	Other (Credit A&H)	0.223	0.225		(13)	Other (Credit A&H)	0.952	0.936
(14)	Financial/Mortgage Guaranty	0.163	0.146		(14)	Financial/Mortgage Guaranty	0.921	0.916
(15)	INTL	0.514	0.669		(15)	INTL	0.878	0.881
(16)	REIN. P&F Lines	0.367	0.319		(16)	REIN. P&F Lines	0.907	0.913
(17)	REIN. Liability	0.626	0.596		(17)	REIN. Liability	0.816	0.793
(18)	PL	1.014	1.226		(18)	PL	0.843	0.844
(19)	Warranty	0.363	0.355		(19)	Warranty	0.951	0.961
(20)	Pet Insurance	0.259	0.272		(20)	Pet Insurance	0.960	0.954

*Cat Lines

50% Indicated Change with Capped Financial Mortgage Guaranty in 2024
100% Indicated Change with Capped Financial Mortgage Guaranty in 2025

Col.	Line of Business	2024 Factor	2025 Factor
PR018 Underwriting Risk – Premiums Proposed Line (4), Industry Losses & Loss Adjustment Expense Ratio			
(1)	H/F	0.933	0.930
(2)	PPA	0.970	0.970
(3)	CA	1.012	1.014
(4)	WC	1.041	1.037
(5)	CMP	0.878	0.873
(6)	MPL Occurrence	1.531	1.394
(7)	MPL Claims Made	1.138	1.146
(8)	SL	0.908	0.894
(9)	OL	1.003	0.993
(10)	Fidelity/Surety	0.756	0.657
(11)	Special Property	0.829	0.795
(12)	Auto Physical Damage	0.836	0.835
(13)	Other (Credit A&H)	0.931	0.926
(14)	Financial/Mortgage Guaranty	1.805	2.012
(15)	INTL	1.355	1.476
(16)	REIN. P&F Lines	1.072	0.973
(17)	REIN. Liability	1.253	1.183
(18)	PL	1.229	1.194
(19)	Warranty	0.920	0.985
(20)	Pet Insurance	0.829	0.795

Col.	Line of Business	2024 Factor	2025 Factor
PR018 Underwriting Risk – Premiums Proposed Line (7), Adjustment for Investment Income			
(1)*	H/F	0.960	0.966
(2)	PPA	0.931	0.937
(3)	CA	0.897	0.903
(4)	WC	0.836	0.833
(5)*	CMP	0.909	0.921
(6)	MPL Occurrence	0.781	0.795
(7)	MPL Claims Made	0.845	0.863
(8)*	SL	0.911	0.924
(9)	OL	0.827	0.837
(10)	Fidelity/Surety	0.913	0.922
(11)*	Special Property	0.953	0.957
(12)	Auto Physical Damage	0.975	0.979
(13)	Other (Credit A&H)	0.953	0.958
(14)	Financial/Mortgage Guaranty	0.888	0.891
(15)*	INTL	0.915	0.925
(16)*	REIN. P&F Lines	0.906	0.919
(17)*	REIN. Liability	0.794	0.811
(18)	PL	0.788	0.801
(19)	Warranty	0.938	0.972
(20)*	Pet Insurance	0.953	0.957

*Cat Lines

Capital Adequacy (E) Task Force
<u>RBC Proposal Form</u>

☒ Capital Adequacy (E) Task Force   ☐ Health RBC (E) Working Group   ☐ Life RBC (E) Working Group

☐ Catastrophe Risk (E) Subgroup   ☐ P/C RBC (E) Working Group   ☐ Longevity Risk (A/E) Subgroup

☐ Variable Annuities Capital. & Reserve   ☐ Economic Scenarios (E/A) Subgroup   ☐ RBC Investment Risk & Evaluation
     (E/A) Subgroup   (E) Working Group

DATE: 4-8-24	**FOR NAIC USE ONLY**
CONTACT PERSON: **Eva Yeung**	Agenda Item #_2024-13-CA Year 2024
TELEPHONE: **816-783-8407**	**DISPOSITION**
EMAIL ADDRESS: **eyeung@naic.org**	**ADOPTED:** ☐ TASK FORCE (TF)
ON BEHALF OF: **Capital Adequacy (E) Task Force**	☐ WORKING GROUP (WG)
NAME: **Tom Botsko**	☐ SUBGROUP (SG) **EXPOSED:**
TITLE: **Chair**	☒ TASK FORCE (TF) 04/30/2024
AFFILIATION: **Ohio Department of Insurance**	☐ WORKING GROUP (WG) ☐ SUBGROUP (SG)
ADDRESS: **50 West Town Street, Suite 300**	**REJECTED:** ☐ TF ☐ WG ☐ SG
Columbus, OH 43215	**OTHER:** ☐ DEFERRED TO ☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY)

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

☒ Health RBC Blanks   ☒ Property/Casualty RBC Blanks   ☒ Life and Fraternal RBC Blanks
☐ Health RBC Instructions   ☐ Property/Casualty RBC Instructions   ☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula   ☐ Property/Casualty RBC Formula   ☐ Life and Fraternal RBC Formula
☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

Update the RBC factors for Receivables for Securities.

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

Additional Staff Comments:

** This section must be completed on all forms.   **Revised 2-2023**

	Proposed 2024	2021	2018	2016	2014
Life	0.016	0.015	0.014	0.014	0.014
Health	0.024	0.024	0.025	0.024	0.024
P/C	0.025	0.020	0.025	0.023	0.024

Proposed 2024 Life RBC Factor for Receivables for Securities

	(1) Statement Value	(2) Allocation % by Class Type	(3) RBC Factors by Class Type	(4) Weighted Avg RBC Factor by Class type (2)x(3)	(5) Allocation % by Asset type (1)/Total (1)	(6) Weighted Avg RBC by Asset type (4)x(5)	
Bonds and Hybrids							
Exempt Obligations	194,021,789,334	5.24%	0.00000	0.000			
NAIC 1.A	506,148,695,508	13.67%	0.00158	0.000			
NAIC 1.B	90,036,719,503	2.43%	0.00271	0.000			
NAIC 1.C	156,268,586,715	4.22%	0.00419	0.000			
NAIC 1.D	173,081,182,677	4.67%	0.00523	0.000			
NAIC 1.E	204,207,960,748	5.51%	0.00657	0.000			
NAIC 1.F	421,796,587,793	11.39%	0.00816	0.001			
NAIC 1.G	438,737,173,476	11.85%	0.01016	0.001			
NAIC 2.A	442,373,341,861	11.94%	0.01261	0.002			
NAIC 2.B	571,155,764,811	15.42%	0.01523	0.002			
NAIC 2.C	319,838,831,236	8.64%	0.02168	0.002			
NAIC 3.A	40,428,385,027	1.09%	0.03151	0.000			
NAIC 3.B	33,826,609,661	0.91%	0.04537	0.000			
NAIC 3.C	41,859,274,788	1.13%	0.06017	0.001			
NAIC 4.A	17,558,056,343	0.47%	0.07386	0.000			
NAIC 4.B	18,027,424,521	0.49%	0.09535	0.000			
NAIC 4.C	14,980,620,137	0.40%	0.12428	0.001			
NAIC 5.A	4,618,312,997	0.12%	0.16942	0.000			
NAIC 5.B	11,908,785,835	0.32%	0.23798	0.001			
NAIC 5.C	1,008,244,423	0.03%	0.30000	0.000			
NAIC 6	2,087,040,768	0.06%	0.30000	0.000			
Subtotal	**3,703,969,388,162**	**100.00%**		**0.013**	**98.37%**	**0.013**	
Preferred stock							
NAIC 1	3,273,389,198	18.48%	0.0039	0.001			
NAIC 2	10,075,067,030	56.89%	0.0126	0.007			
NAIC 3	2,058,350,579	11.62%	0.0446	0.005			
NAIC 4	980,582,619	5.54%	0.0970	0.005			
NAIC 5	866,090,716	4.89%	0.2231	0.011			
NAIC 6	455,936,493	2.57%	0.3000	0.008			
Subtotal	**17,709,416,635**	**100.00%**		**0.037**	**0.47%**	**0.000**	
Common stock (subtotal)	**43,789,344,739**	**100.00%**	**0.3000**	**0.300**	**1.16%**	**0.003**	
Total	**3,765,468,149,536**				**100.00%**	**0.016**	**RBC Factor Receivables for Securities Life**

Proposed 2023 P&C RBC Factor for Receivables for Securities

	(1) Statement Value	(2) Allocation % by Class Type	(3) RBC Factors by Class Type	(4) Weighted Avg RBC Factor by Class type (2)x(3)	(5) Allocation % by Asset type (1)/Total (1)	(6) Weighted Avg RBC by Asset type (4)x(5)	
Bonds and Hybrids							
Exempt Obligations	252,990,862,025	20.57%	0.00000	0.000			
NAIC 1.A	293,555,850,261	23.87%	0.00200	0.000			
NAIC 1.B	57,186,968,605	4.65%	0.00400	0.000			
NAIC 1.C	57,461,059,052	4.67%	0.00600	0.000			
NAIC 1.D	50,141,495,694	4.08%	0.00800	0.000			
NAIC 1.E	61,085,788,433	4.97%	0.01000	0.000			
NAIC 1.F	85,436,350,941	6.95%	0.01300	0.001			
NAIC 1.G	86,898,961,945	7.07%	0.01500	0.001			
NAIC 2.A	79,007,157,871	6.43%	0.01800	0.001			
NAIC 2.B	96,122,789,301	7.82%	0.02100	0.002			
NAIC 2.C	54,436,332,403	4.43%	0.02500	0.001			
NAIC 3.A	7,779,786,778	0.63%	0.05500	0.000			
NAIC 3.B	8,926,659,821	0.73%	0.06000	0.000			
NAIC 3.C	10,342,767,727	0.84%	0.06600	0.001			
NAIC 4.A	7,546,890,280	0.61%	0.07100	0.000			
NAIC 4.B	9,061,773,416	0.74%	0.07700	0.001			
NAIC 4.C	6,003,639,607	0.49%	0.08700	0.000			
NAIC 5.A	1,137,504,077	0.09%	0.09800	0.000			
NAIC 5.B	3,454,683,084	0.28%	0.10900	0.000			
NAIC 5.C	244,917,020	0.02%	0.12000	0.000			
NAIC 6	809,283,663	0.07%	0.30000	0.000			
Subtotal	**1,229,631,522,004**	**100.00%**		**0.011**	**89.38%**	**0.010**	
Preferred stock							
NAIC 1	375,682,422	6.59%	0.0030	0.000			
NAIC 2	3,418,704,780	59.95%	0.0100	0.006			
NAIC 3	1,096,732,027	19.23%	0.0200	0.004			
NAIC 4	102,641,767	1.80%	0.0450	0.001			
NAIC 5	451,218,320	7.91%	0.1000	0.008			
NAIC 6	257,641,690	4.52%	0.3000	0.014			
Subtotal	**5,702,621,006**	**100.00%**		**0.032**	**0.41%**	**0.000**	
Common stock (subtotal)	**140,397,670,137**	**100.00%**	**0.1500**	**0.150**	**10.21%**	**0.015**	
Total	**1,375,731,813,147**				**100.00%**	**0.025**	**RBC Factor Receivables for Securities P/C**

Proposed 2023 Health RBC Factor for Receivables for Securities

	(1) Statement Value	(2) Allocation % by Class Type	(3) RBC Factors by Class Type	(4) Weighted Avg RBC Factor by Class type (2)x(3)	(5) Allocation % by Asset type (1)/Total (1)	(6) Weighted Avg RBC by Asset type (4)x(5)	
Bonds and Hybrids							
Exempt Obligations	52,262,379,200	22.62%	0.00000	0.000			
NAIC 1.A	62,144,903,778	26.90%	0.00200	0.001			
NAIC 1.B	7,492,842,706	3.24%	0.00400	0.000			
NAIC 1.C	7,065,813,766	3.06%	0.00600	0.000			
NAIC 1.D	7,721,775,528	3.34%	0.00800	0.000			
NAIC 1.E	12,240,802,320	5.30%	0.01000	0.001			
NAIC 1.F	13,817,276,206	5.98%	0.01300	0.001			
NAIC 1.G	15,890,795,938	6.88%	0.01500	0.001			
NAIC 2.A	15,262,265,442	6.61%	0.01800	0.001			
NAIC 2.B	15,431,587,412	6.68%	0.02100	0.001			
NAIC 2.C	10,763,397,705	4.66%	0.02500	0.001			
NAIC 3.A	1,673,474,938	0.72%	0.05500	0.000			
NAIC 3.B	2,260,008,331	0.98%	0.06000	0.001			
NAIC 3.C	2,557,378,488	1.11%	0.06600	0.001			
NAIC 4.A	1,324,818,598	0.57%	0.07100	0.000			
NAIC 4.B	1,735,799,906	0.75%	0.07700	0.001			
NAIC 4.C	838,977,643	0.36%	0.08700	0.000			
NAIC 5.A	172,416,227	0.07%	0.09800	0.000			
NAIC 5.B	122,085,597	0.05%	0.10900	0.000			
NAIC 5.C	59,483,949	0.03%	0.12000	0.000			
NAIC 6	163,161,494	0.07%	0.30000	0.000			
Subtotal	**231,001,445,172**	**100.00%**		**0.011**	**90.02%**	**0.010**	
Preferred stock							
NAIC 1	91,479,908	13.53%	0.0030	0.000			
NAIC 2	312,656,134	46.23%	0.0100	0.005			
NAIC 3	130,474,575	19.29%	0.0200	0.004			
NAIC 4	25,557,463	3.78%	0.0450	0.002			
NAIC 5	98,310,363	14.54%	0.1000	0.015			
NAIC 6	17,838,817	2.64%	0.3000	0.008			
Subtotal	**676,317,260**	**100.00%**		**0.033**	**0.26%**	**0.000**	
Common stock (subtotal)	**24,939,438,935**	**100.00%**	**0.1500**	**0.150**	**9.72%**	**0.015**	
Total	**256,617,201,367**				**100.00%**	**0.024**	**RBC Factor Receivables for Securities P/C**

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	☐ P/C RBC (E) Working Group	☐ Longevity Risk (A/E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup	☐ Economic Scenarios (E/A) Subgroup	☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: 4-24-24	**FOR NAIC USE ONLY**
CONTACT PERSON: Eva Yeung	Agenda Item #_2024-16-CA_ Year _2024_
TELEPHONE: 816-783-8407	**DISPOSITION**
EMAIL ADDRESS: eyeung@naic.org	**ADOPTED:**
ON BEHALF OF: Capital Adequacy (E) Task Force	☐ TASK FORCE (TF) _____ ☐ WORKING GROUP (WG) _____
NAME: Tom Botsko	☐ SUBGROUP (SG) _____
TITLE: Chair	**EXPOSED:** ☒ TASK FORCE (TF) _04/30/2024_
AFFILIATION: Ohio Department of Insurance	☐ WORKING GROUP (WG) _____ ☐ SUBGROUP (SG) _____
ADDRESS: 50 West Town Street, Suite 300	**REJECTED:** ☐ TF ☐ WG ☐ SG _____
Columbus, OH 43215	**OTHER:** ☐ DEFERRED TO _____ ☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY) _____

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

☒ Health RBC Blanks	☒ Property/Casualty RBC Blanks	☒ Life and Fraternal RBC Blanks
☐ Health RBC Instructions	☐ Property/Casualty RBC Instructions	☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula	☐ Property/Casualty RBC Formula	☐ Life and Fraternal RBC Formula
☐ OTHER _____		

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

The purpose of this proposal is to provide edits to the RBC Preamble to clarify and emphasize the purposes and the intent of using RBC.

Additional Staff Comments:

_____

** This section must be completed on all forms.   **Revised 2-2023**

Risk-Based Capital
Preamble

History of Risk-Based Capital by the NAIC

A. Background

1. The NAIC, through its committees and working groups, facilitated many projects of importance to state insurance regulators, the industry, and users of statutory financial information in the early 1990s. That was evidenced by the original mission statement and charges given to the Capital Adequacy (E) Task Force (CADTF) of the Financial Condition (E) Committee.

2. From the inception of insurance regulation in the mid-1800s, the limitation of insurance company insolvency risk has been a major goal of the regulatory process. The requirement of adequate capital has been a major tool in limiting insolvency costs throughout the history of insurance regulation. Initially, the states enacted statutes requiring a specified minimum amount of capital and surplus for an insurance company to enter the business or to remain in business.

3. Fixed minimum capital requirements were largely based on the judgment of the drafters of the statutes and varied widely among the states. Those fixed minimum capital and surplus requirements have served to protect the public reasonably well for more than a century. However, they fail to recognize variations in risk between broad categories of key elements of insurance, nor do they recognize differences in the amount of capital appropriate for the size of various insurers.

4. In 1992, the NAIC adopted the life risk-based capital (RBC) formula with an implementation date of year-end 1993. The formula was developed for specific regulatory needs. Four major categories were identified for the life formula: asset risk; insurance risk; interest rate risk; and all other business risk. The property/casualty and health formulas were implemented in 1994 and 1998, respectively. The focus of these two formulas is: asset risk; underwriting risk; credit risk; and business risk (health).

5. The total RBC needed by an insurer to avoid being taken into conservatorship is the Authorized Control Level RBC, which is 50% of the sum of the RBC for the categories, adjusted for covariance. The covariance adjustment is meant to take into account that problems in all risk categories are not likely to occur at the same time.

6. The mission of the CADTF was to determine the amount of capital an insurer should be required to hold to avoid triggering various specific regulatory actions. The RBC formula largely consists of a series of risk factors that are applied to selected assets, liabilities, or other specific company financial data to establish the threshold levels generally needed to bear the risk arising from that item.

7. To carry out its mission, the CADTF was charged with carrying out the following initiatives:
    *   Evaluate emerging "risk" issues for referral to the RBC working groups/subgroups for certain issues involving more than one RBC formula.
    *   Monitor emerging and existing risks relative to their consistent or divergent treatment in the three RBC formulas.
    *   Review and evaluate company submissions for the schedule and corresponding adjustment to total adjusted capital (TAC).
    *   Monitor changes in accounting and reporting requirements resulting from the adoption and continuing maintenance of the *Accounting Practices and Procedures Manual* and the *Valuation Manual* to ensure that model laws, publications, formulas, analysis tools, etc., supported by the CADTF continue to meet regulatory objectives.

8. The RBC forecasting, and instructions were developed and are now maintained in accordance with the mission of the CADTF as a method of measuring the threshold amount of capital appropriate for an insurance company to avoid capital specific regulatory requirements based on its size and risk profile.

B. Purpose of Risk-Based Capital

9. The purpose of RBC is to identify potentially weakly capitalized companies in order to facilitate regulatory actions designed to, in most cases, ensure policyholders will receive the benefits promised without relying on a guaranty association or taxpayer funds. Consequently, the RBC formula calculates capital level trigger points that enable regulatory intervention in the operation of such companies.

10. RBC reports and adjusted report(s) are intended solely for use by the commissioner/state in monitoring the solvency of insurers and the need for possible corrective action with respect to insurers and are considered confidential. All domestic insurers are required to file an RBC report unless exempt by the commissioner. There are no state permitted practices to modify the RBC formula and all insurers are required to abide by the RBC instructions.

11. Comparison of an insurer's TAC to any RBC level is a regulatory tool that may indicate the need for **possible** corrective action with respect to the insurer and is **not intended or appropriate as a means to rank insurers generally**. Therefore—except as otherwise required under the provisions of *Risk-Based Capital (RBC) for Insurers Model Act* (#312) or the *Risk-Based Capital (RBC) for Health Organizations Model Act* (#315)—the making, publishing, disseminating, circulation or placing before the public, or causing, directly or indirectly to be made, published, disseminated, circulated or place before the public, in a newspaper, magazine or other publication, or in a form of a notice, or in any other way, an advertisement, announcement or statement (including but not limited to press releases, earnings releases, webcast materials, or any other earnings presentations or webcasts) containing an assertion, representation or statement with regard to the RBC levels of any insurer or of any component derived in the calculation by any insurer is prohibited.

C. Objectives of Risk-Based Capital Reports

12. The primary responsibility of each state insurance department is to regulate insurance companies in accordance with state laws, with an emphasis on solvency for the protection of policyholders. The ultimate objective of solvency regulation is to ensure that policyholder, contract holder and other legal obligations are met when they come due and that companies maintain capital and surplus at all times and in such forms as required by statute.

To support this role, the RBC reports identify potentially weakly capitalized companies in that each insurer must report situations where the actual TAC is below a threshold amount for any of the several RBC levels. This is known as an "RBC event" and reporting is mandatory. The state regulatory response is likely to be unique to each insurer, as each insurer's risk profile will have some differences from the average risk profile used to develop the RBC formula factors and calculations.

There are several RBC levels with different levels of anticipated additional regulatory oversight following the reporting of an RBC event. Company Action Level (CAL) has the least amount of additional regulatory oversight, as it envisions the company providing to its regulator a plan of action to increase capital or reduce risk or otherwise satisfy the regulator of the adequacy of its capital. Regulatory Action Level (RAL) is the next higher level, where the regulator is more directly involved in the development of the plan of action. Authorized Control Level (ACL) anticipates an even higher amount of regulatory action in implementing the plan of action. Mandatory Control Level (MCL) requires the insurance commissioner to place the reporting entity under regulatory control.

D. Critical Concepts of Risk-Based Capital

13. Over the years, various financial models have been developed to try to measure the "right" amount of capital that an insurance company should hold.[1] "No single formula or ratio can give a complete picture of a company's

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[1] Report of the Industry Advisory Committee to the Life Risk-Based Capital (E) Working Group, p. 6; Nov. 17, 1991.

operations, let alone the operation of an entire industry. However, a properly designed formula will help in the early identification of companies with inadequate capital levels and allow corrective action to begin sooner. This should ultimately lower the number of company failures and reduce the cost of any failures that may occur."

14. Because the NAIC formula develops threshold levels of capitalization rather than a target level, it is neither useful nor appropriate to use the RBC formula to compare the RBC ratio developed by one insurance company to the RBC ratio developed by another. Comparisons of amounts that exceed the threshold standards do not provide a reliable assessment of their relative financial strength. For example, a company with an RBC ratio of 600% is not necessarily financially stronger than a company with an RBC ratio of 400%. For this reason, Model #312 and Model #315 prohibit insurance companies, their agents and others involved in the business of insurance using the company's RBC results to compare competitors.

15. The principal focus of solvency measurement is the determination of financial condition through an analysis of the financial statements and RBC. However, protection of the policyholders can only be maintained through continued monitoring of the financial condition of the insurance enterprise. Operating performance is another indicator of an enterprise's ability to maintain itself as a going concern.

16. The CADTF and its RBC working groups are charged with evaluating refinements to the existing NAIC RBC formula and considering improvements and revisions to the various RBC blanks to 1) conform the RBC blanks to changes made in other areas of the NAIC to promote uniformity (when it is determined to be necessary); and 2) oversee the development of additional reporting formats within the existing RBC blanks as needs are identified.

17. The CADTF and its RBC working groups will monitor and evaluate changes to the annual financial statement blanks and the *Purposes and Procedure Manual of the NAIC Investment Analysis Office* to determine if assets or, specifically, investments evaluated by the NAIC Securities Valuation Office are relevant to the RBC formula in determining the threshold capital and surplus for all insurance companies or whether reporting available to the regulator is a more appropriate means to addressing the risk. The CADTF will consider different methods of determining whether a particular risk should be added as a new risk to be studied and selected for a change to the applicable RBC formula, but due consideration will be given to the materiality of the risk to the industry, as well as the very specific purpose of the RBC formulas to develop regulatory threshold capital levels.

E. Limited use of Risk-Based Capital

18. Use of RBC is limited to identifying potentially weakly capitalized companies to facilitate regulatory action and oversight. Any other application of RBC would be inappropriate to the detriment of policyholders, companies, and investors. While RBC may be used in other components of the regulatory framework, such uses should be in the context of identifying potentially weakly capitalized companies. For example, statutory accounting may leverage RBC in determining the admissibility of certain types of assets, when the benefits of those assets may not be readily available to the policyholders of a troubled company.

19. RBC does not provide a complete, clear, or meaningful ranking of insurers. For example, an insurer voluntarily strengthening assumptions used for reserving would generally reduce an insurer's RBC ratio but does not indicate a weaker position than a similarly situated insurer who did not elect to strengthen assumptions used for reserving. Regulators are able to consider a complete picture of the insurer's financial situation to appropriately follow up on RBC action levels. Using RBC beyond its intended purpose could create perverse incentives for companies that are not at risk of triggering an action level.

20. RBC requirements for particular risk categories were developed based on specific regulatory guidelines and following agreed upon procedures and methodologies. The RBC requirements were developed with regulatory needs in mind. They were not developed or intended for any other use. As such, except where prescribed, RBC requirements would not be appropriate to rely on in other contexts such as reserve setting or risk management or evaluating the risk of investments. While the development of RBC requirements often rely on historical data points, the data used extends over a substantial period of years and the actuarial modeling extends out over a long time horizon. They do not reflect risk at any one point in time. Moreover, the granularity of an analysis for

RBC purposes likely differs from the granularity appropriate for other applications. Therefore, RBC requirements are not appropriate to evaluate the relative or absolute level of risk outside of the context of a regulatory framework for identifying potentially weakly capitalized companies.

21. Because RBC is a broad tool to facilitate regulatory oversight, an insurer's RBC can fluctuate without indicating a corresponding change in the insurer's financial strength.

NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

MEMORANDUM

TO: Philip Barlow, Chair of the Risk-Based Capital Investment Risk and Evaluation
           (E) Working Group

FROM: Tom Botsko, Chair of the Capital Adequacy (E) Task Force

DATE: April 15, 2024

RE: Risk-Based Capital Asset Concentration Modification

Executive Summary and Recommendation

During the 2024 Spring National Meeting, the Capital Adequacy (E) Task Force agreed to: 1) disband the Risk-Based Capital (RBC) Risk Evaluation Asset Concentration Ad Hoc Subgroup; and 2) refer the asset concentration issues to the Risk-Based Capital Investment Risk and Evaluation (E) Working Group. The Ad Hoc Subgroup accomplished two things during its establishment. It created a decision tree to evaluate when an asset concentration element may warrant an RBC solution and performed a walkthrough of the decision tree using sector/industry concentration. The Ad Hoc Subgroup also inventoried a list of potential asset concentration elements. From the discussion at the Spring National Meeting, the Task Force agreed to forward these deliverables to the Risk-Based Capital Investment Risk and Evaluation (E) Working Group and recommends that the Working Group consider the following:

1. Further investigating any potential asset concentration issues and possibly modifying the structure and instructions for all lines of business.

We recommend that the Risk-Based Capital Investment Risk and Evaluation (E) Working Group provides updates on this project at each national meeting until its completion. The Task Force appreciates your time and consideration of this referral. If you have any questions, please contact Tom Botsko at thomas.botsko@insurance.ohio.gov.

Cc: Eva Yeung, Maggie Chang, Dave Fleming, Kazeem Okosun, Julie Gann

Washington, DC 444 North Capitol Street NW, Suite 700, Washington, DC 20001-1509   p | 202 471 3990   f | 816 460 7493

Kansas City 1100 Walnut Street NW, Suite 1500, Kansas City, MO 64106-2197   p | 816 842 3600   f | 816 783 8175

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MEMORANDUM

TO: Wanchin Chou, Chair of the Catastrophe Risk (E) Subgroup

FROM: Tom Botsko, Chair of the Capital Adequacy (E) Task Force

DATE: April 16, 2024

RE: Risk-Based Capital Geographic Concentration Issue

Executive Summary and Recommendation

During the Spring National Meeting, the Capital Adequacy (E) Task Force agreed to: 1) disband the Geographic Concentration Ad Hoc Subgroup; and 2) refer the geographic concentration issue to the Catastrophe Risk (E) Subgroup. The Geographic Concentration Ad Hoc Subgroup heard several presentations from different rating agencies, as well as the Florida and Louisiana Departments of Insurance (DOIs), on how they measured the geographic concentration issue when hurricanes hit heavily populated regions in the past few months. Based on the findings, the Task Force believed that the Catastrophe Risk (E) Subgroup would be the appropriate group to address this issue. From the discussion at the Spring National Meeting, the Task Force agreed to forward this issue to the Catastrophe Risk (E) Subgroup and recommends that the Subgroup consider the following:

1. Further investigating all outstanding issues and possibly changing the property and casualty (P/C) risk-based capital (RBC) formula to address the risk.

We recommend that the Catastrophe Risk (E) Subgroup provides updates on this project at each national meeting until its completion. The Task Force appreciates your time and consideration of this referral. If you have any questions, please contact Tom Botsko.

Cc: Eva Yeung

MEMORANDUM

TO: Tom Botsko, representing Judith L. French, Chair of the Capital Adequacy (E) Task Force
                Mike Yanacheak, representing Doub Ommen, Vice-Chair of the Capital Adequacy (E) Task Force
                Philip Barlow, Chair of the Life Risk-Based Capital (E) Working Group
                Ben Slutsker, Vice-Chair of the Life Risk-Based Capital (E) Working Group

FROM: Dale Bruggeman, Chair of the Statutory Accounting Principles (E) Working Group
                Kevin Clark, Vice-Chair of the Statutory Accounting Principles (E) Working Group

DATE: March 27, 2024

RE: SAPWG Referral for Investments in Tax Credit Structures

During the 2024 Spring National Meeting, the Statutory Accounting Principles (E) Working Group (SAPWG) adopted agenda item *2022-14: New Market Tax Credits*, a new SAP concept to replace *SSAP No. 93—Low-Income Housing Tax Credit Property Investments* with *SSAP No. 93R—Investments in Tax Credit Structures* which expands the scope of statutory guidance to include all qualifying tax credit investments regardless of structure or the underlying state/federal tax credit program. The new guidance will be effective on Jan. 1, 2025.

With this adoption, the Working Group directed NAIC staff to send a referral to both the Capital Adequacy (E) Task Force and Life Risk-Based Capital (E) Working Group to inform them of the impending changes to reporting lines. Per the Blanks (E) Working Group proposal (Ref #2024-11BWG), the reporting line, for federal guaranteed programs is proposed to be deleted because these types of tax credit investment structures were substantially eliminated by the Historic Boardwalk Hall, LLC v. Comm of Internal Revenue court decision in 2012. The remaining existing Low-Income Housing Tax Credit (LIHTC) Investment Asset Valuation Reserve (AVR) reporting lines are proposed to be renamed and would continue to include LIHTC investments but would also be expanded to include any type of state or federal tax credit program assuming the investment meets the criteria described in paragraph 2 of SSAP No. 93R.

As the current RBC factors were specifically developed for investments in LIHTC programs, this change may indicate the need for a review to update new RBC factors and/or reporting lines which would include new tax credit programs which are not real estate based. Attachment A summarizes both the original LIHTC investment AVR reporting lines and the proposed AVR reporting lines for tax credit investments for your reference. (see Note 1)

The Working Group appreciates your time and consideration of this referral. If you have any questions, please contact Dale Bruggeman, or Kevin Clark, SAPWG Chair and Vice Chair, with any questions.

Cc: Julie Gann, Robin Marcotte, Jake Stultz, Jason Farr, Wil Oden, Eva Yeung, Dave Fleming, Maggie Chang, Kazeem Okosun

Note 1: Attachment A summarizes proposed changes to AVR reporting lines. Note that P/C and Health RBC formulas do not use AVR reporting lines. Yet, the proposed reporting lines for Schedule BA (Ref #2024-11BWG) use the same structure as proposed AVR reporting lines. For brevity, the proposed changes to Schedule BA are omitted herein.

https://naiconline.sharepoint.com/teams/FRSStatutoryAccounting/Stat Acctg_Statutory_Referrals/2024/SAPWG to CATF and LRBCWG - 3-26-24.docx

AVR reporting lines under SSAP No. 93—Low-Income Housing Tax Credit Property Investments

Line Number	NAIC Desig-nation	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 5 Factor	6 Amount (Cols. 4x5)	Reserve Objective 7 Factor	8 Amount (Cols. 4x7)	Maximum Reserve 9 Factor	10 Amount (Cols. 4x9)
		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	

Proposed AVR reporting lines under SSAP No. 93R— Investments in Tax Credit Structures

Line Number	NAIC Desig-nation	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 5 Factor	6 Amount (Cols. 4x5)	Reserve Objective 7 Factor	8 Amount (Cols. 4x7)	Maximum Reserve 9 Factor	10 Amount (Cols. 4x9)
		INVESTMENTS IN TAX CREDIT STRUCTURES										
75		Tax Credit Investments – Federal Non-guaranteed......................................	....	....	....	....	0.0063	....	0.0120	....	0.0190	....
76		Tax Credit Investments – State Guaranteed..	....	....	....	....	0.0003	....	0.0006	....	0.0010	....
77		Tax Credit Investments – State Non-guaranteed	....	....	....	....	0.0063	....	0.0120	....	0.0190	....
78		Tax Credit Investments - Other					0.0273		0.0600		0.0975	
79		Total Tax Credit Investments (Sum of Lines 75 through 78)					XXX		XXX		XXX	

Capital Adequacy (E) Task Force
<u>RBC Proposal Form</u>

☐ Capital Adequacy (E) Task Force ☐ Health RBC (E) Working Group ☐ Life RBC (E) Working Group

☒ Catastrophe Risk (E) Subgroup ☐ P/C RBC (E) Working Group ☐ Longevity Risk (A/E) Subgroup

☐ Variable Annuities Capital. & Reserve (E/A) Subgroup ☐ Economic Scenarios (E/A) Subgroup ☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: 1/23/24	**FOR NAIC USE ONLY**
CONTACT PERSON: Dan Daveline	Agenda Item #_2023-17-CR_ Year _____2024_____
TELEPHONE:	**DISPOSITION**
EMAIL ADDRESS: ddaveline@naic.org	**ADOPTED:** ☐ TASK FORCE (TF) ☒ WORKING GROUP (WG) _04/25/2024_ ☒ SUBGROUP (SG) _04/23/2024_
ON BEHALF OF: **Solvency Workstream of the Climate & Resiliency (EX) Task Force**	**EXPOSED:** ☐ TASK FORCE (TF) ☐ WORKING GROUP (WG) _____ ☒SUBGROUP (SG) 01/29/2024 03/17/24
NAME:	**REJECTED:** ☐ TF ☐ WG ☐ SG
TITLE:	**OTHER:**
AFFILIATION:	☐ DEFERRED TO
ADDRESS:	☐ REFERRED TO OTHER NAIC GROUP ☐ (SPECIFY)

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

☐ Health RBC Blanks ☒ Property/Casualty RBC Blanks ☐ Life and Fraternal RBC Blanks

☐ Health RBC Instructions ☒ Property/Casualty RBC Instructions ☐ Life and Fraternal RBC Instructions

☐ Health RBC Formula ☒ Property/Casualty RBC Formula ☐ Life and Fraternal RBC Formula

☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

The Solvency Workstream of the Climate & Resiliency (EX) Task Force was tasked with considering the development of climate scenario analysis. The workstream held three public panels on the topic in 2022 and in 2023 learned that commercial CAT modelers have products known as "Climate Conditioned Catalogs" that reflect adjusted frequency and severity for certain time horizons (e.g. 2040 or 2050) that if compared side by side with existing RBC data in PR027 would provide an estimate of climate change for hurricane and wildfire. The information is intended to be useful for domestic regulators holding conversations with insurers that may have a greater degree of risk levels for these perils.

Additional Staff Comments:

4/22/24 – the proposal was revised based on the regulator inputs.

** This section must be completed on all forms.   **Revised 2-2023**

CALCULATION OF CATASTROPHE RISK CHARGE RCAT
PR027A, PR027B, PR027C, PR027, PR027B2, PR027C2 AND PR027INT

Detail Eliminated to Conserve

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE
PR027B2, PR027C2

These disclosures aim at collecting the impact of climate related risks on the modeled losses for the perils of hurricane and wildfire that have been used in PR027B and PR027C respectively. These disclosures will be effective for YE 2024, YE 2025 and YE 2026 reporting .The intent of these disclosures is for informational purposes only and not to determine a new RCAT charge. The impact should be estimated using the following specific instructions:

- Representative Concentration Pathway (RCP) represents a set of projections that are meant to serve as an input for climate modeling, pattern scaling and atmospheric chemistry modeling. For purposes of these instructions, companies should utilize an RCP of 4.5 (or equivalent SSP).
- The impact should be assessed separately under two-time horizons 2040 and 2050.
- Assume a static in-force book of business at year end (no changes to book of business, to reinsurance strategy or to total insured value (TIV) inflation over the projected time horizon).
- The impact can be modeled using either a Climate Conditioned Catalog developed by a commercial CAT model vendor or equivalent view of climate risk internally developed by the insurer or that is the result of adjustments made by the insurer to vendor provided catalogs to represent the own view of climate risk.

The same basic information is required to be completed for this PR027B2 and PR027C2 as the previous pages PR027B and PR027C, including specifically as follows:

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.

In addition, the insurer should provide the following information about the view of climate risk used to determine the climate conditioned modeled losses under each time horizon:

- If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog.
- If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used

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CALCULATION OF CATASTROPHE RISK CHARGE FOR HURRICANE   PR027B

Modeled Losses

Hurricane	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	(4)†† Ceded Amounts Recoverable with zero Credit Risk Charge
(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) Worst Year in 1000	**Company Records**				

		(5) Y/N
(6) Has the company reported above, its modeled hurricane losses using an occurrence exceedance probability (OEP) basis?		

	Reference	(6) Amount	Factor	(7) RBC Requirement (C(6) * Factor)
(7) Net Hurricane Risk	L(2) C(2)	0	1.000	0
(8) Contingent Credit Risk for Hurricane Risk	L(2) C(3) - C(4)	0	0.018	0
(9) Total Hurricane Catastrophe Risk (AEP Basis)	If L(**6**) C(5) = "N", L(**9**) C(6) = L(**7**) C(7)+ L(**8**) C(7), otherwise "0"	0	1.000	0
(10) Total Hurricane Catastrophe Risk (OEP Basis)	If L(**6**) C(5) = "Y", L(**10**) C(6) = L(**7**) C(7)+ L(**8**) C(7), otherwise "0"	0	1.000	0
(11) Total Hurricane Catastrophe Risk	L(**9**) C(7) + L(**10**) C(7)			0

Lines (1)-(**5**): 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 hurricane; 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 WILDFIRE   PR027C
(For Informational Purposes Only)

Modeled Losses

Wildfire	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	(4)†† Ceded Amounts Recoverable with zero Credit Risk Charge
(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) Worst Year in 1000	**Company Records**				

		(5) Y/N
(6) Has the company reported above, its modeled wildfire losses using an occurrence exceedance probability (OEP) basis?		

	Reference	(6) Amount	Factor	(7) RBC Requirement (C(6) * Factor)
(7) Net Wildfire Risk	L(2) C(2)	0	1.000	0
(8) Contingent Credit Risk for Wildfire Risk	L(2) C(3) - C(4)	0	0.018	0
(9) Total Wildfire Catastrophe Risk (AEP Basis)	If L(6) C(5) = "N", L(9) C(6) = L(7) C(7)+ L(8) C(7), otherwise "0"	0	1.000	0
(10) Total Wildfire Catastrophe Risk (OEP Basis)	If L(6) C(5) = "Y", L(10) C(6) = L(7) C(7)+ L(8) C(7), otherwise "0"	0	1.000	0
(11) Total Wildfire Catastrophe Risk	L(9) C(7) + L(10) C(7)			0

Disclosure in lieu of model-based reporting:

		(8) Direct and Assumed	(9) Net
(12) For a company qualifying for the exemption under PR027INT C (10), complete 11a through 11c below:			
a. Provide the company's gross and net 1-in-100-year wildfire losses on a best estimate basis in lieu of model-based reporting.			
b. Provide details on how the company estimated the amounts shown in 11a.			

c. Provide a narrative disclosure about how the company manages its wildfire risk.

Lines (1)-(5): 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.

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR HURRICANE   PR027BI
(For Informational Purposes Only)

Climate Conditioned Modeled Losses for 2040

Hurricane	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(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) Worst Year in 1000	Company Records			

View of climate risk used

(6) **If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog**

(7) **If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:**

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor-catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† 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).

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

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR HURRICANE   PR027BII
(For Informational Purposes Only)

Climate Conditioned Modeled Losses for 2050

Hurricane	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(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) Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† 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).

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

PR027BII

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR WILDFIRE   PR027CI
(For Informational Purposes Only)

Climate Conditioned Modeled Losses for 2040

Wildfire	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(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) Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† 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).

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

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR WILDFIRE   PR027CII
(For Informational Purposes Only)

Climate Conditioned Modeled Losses for 2050

Wildfire	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(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) Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† 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).

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

ALTERNATIVE CREDIT COUNCIL
LENDING FOR GROWTH

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Mr. Tom Botsko
Chair, Capital Adequacy Task Force ("CATF")
National Association of Insurance Commissioners ("NAIC")
via email to Eva Yeung (eyeung@naic.org)

April 16, 2024

Dear Chair Botsko:

Re: Proposal 2024-02-CA (Residual Structure PC & Health)

The Alternative Credit Council ("ACC")[1], the private credit affiliate of the Alternative Investment Management Association Ltd ("AIMA"), appreciates the opportunity to comment on CATF's proposal to increase the capital charge for the residual tranches of asset-backed securities ("ABS") contained in Proposal 2024-02-CA. For CATF members that are not members of the Risk-Based Capital Investment Risk and Evaluation (E) Working Group ("RBC-IRE"), on February 26, the ACC submitted an independent study conducted by Oliver Wyman ("OW") that compared the 45% ABS residual charge to similar investments that have already received an NAIC capital charge.[2]

The study concludes that, on a portfolio basis, ABS residuals perform better than common equity under all modeled stress scenarios. Further, common stock losses are 30 percent higher than ABS residuals in the Deep-Tail stress scenario and 35-50 percent

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1   The Alternative Credit Council (ACC) is a global body that represents asset management firms in the private credit and direct lending space. It currently represents 250 members that manage over $1trn of private credit assets. The ACC is an affiliate of AIMA and is governed by its own board which ultimately reports to the AIMA Council. ACC members provide an important source of funding to the economy. They provide finance to mid-market corporates, SMEs, commercial and residential real estate developments, infrastructure, and the trade and receivables business. The ACC's core objectives are to provide guidance on policy and regulatory matters, support wider advocacy and educational efforts and generate industry research with the view to strengthening the sector's sustainability and wider economic and financial benefits. Alternative credit, private debt or direct lending funds have grown substantially in recent years and are becoming a key segment of the asset management industry. The ACC seeks to explain the value of private credit by highlighting the sector's wider economic and financial stability benefits.

2   A copy of the February 26, 2024, ACC letter to the RBC-IRE can be found on pages 11-13 of the RBC-IRE March 17, 2024 meeting materials and the OW report can be found on pages 14-65 at rbcire-materials-20240317.pdf (naic.org)

Alternative Credit Council (ACC)

The ACC is the private credit affiliate of the Alternative Investment Management Association Limited (AIMA)
AIMA is registered in England as a Company Limited by Guarantee, No. 4437037. VAT Registration no. 577 5913 90. Registered Office as above.

AIMA
ALTERNATIVE CREDIT COUNCIL

higher than ABS residuals in the Mid-Tail stress scenarios. This conclusion is shown in Figure 22 on page 30 of the Oliver Wyman research paper (copied below).

Figure 22: Capital charges compared to modeled scenario losses for selected asset classes[30]

Loss in value/Impairment
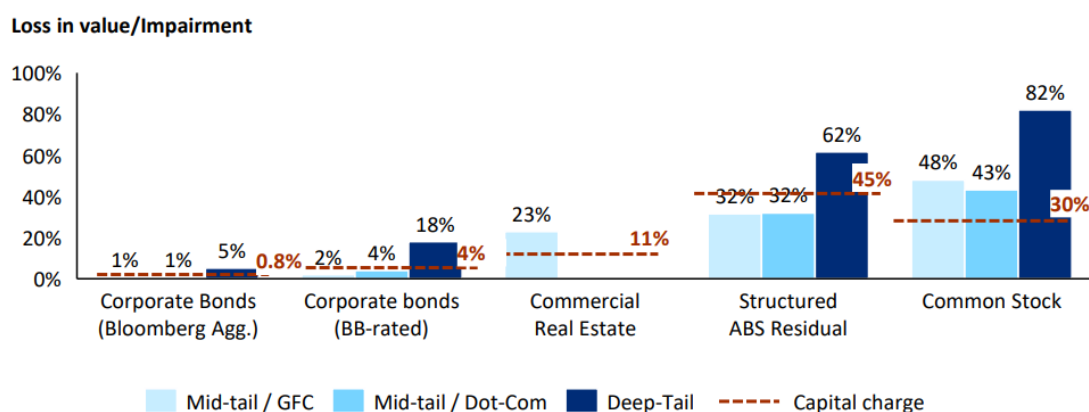
The OW analysis indicates that a 45% charge would not be consistent with the capital charge imposed on similar equity investments such as commercial real estate equity and common stock. In addition to this OW study, in this letter we provide additional data analyses that demonstrate the relative safety and outperformance of CLO equity tranches compared to common stock.

Claims of 100% cliff losses versus historical track record

One concern raised by regulators is whether ABS residual tail losses during periods of market stress could be 100% in absolute terms and much greater in comparison to public equities. However, Larry Cordell, an economist at the Federal Reserve Bank of Philadelphia, along with Professor Michael Roberts of the Wharton School at the University of Pennsylvania, performed a detailed analysis of CLO residuals from 1997-2021. The results of their analysis were published in the Journal of Finance and found that CLO equity outperformed the S&P 500 during that time period.[3] Their study also found that on a risk-adjusted basis, CLO equity outperformed equity "against a variety of public benchmarks."[4] A key finding of this study was the relative stability of CLO equity during two periods of significant market instability, namely the 2001 dot-com bubble and the 2008 Great Financial Crisis. The authors noted that CLOs' "equity performance highlights the resilience of CLOs to market volatility."[5] The authors attributed the outperformance of CLO equity to several of the structural features of CLOs, including "their closed-end structure, long-term funding, and embedded options to reinvest principal proceeds."[6]

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3   Cordell, R, and Schwert, M, CLO Performance, Journal of Finance, 2023. https://doi.org/10.1111/jofi.13224

4   *Id.* at 2. "Our central finding is that CLO equity tranches provide statistically and economically significant abnormal returns, or "alpha," against a variety of public benchmarks…"

5   *Id.* at 20.

6   *Id.* at 1. *See also* Jeff Helsing, Can CLO Equity Outperform if the Economy Tips into Recession?, September 26, 2022, Can CLO Equity Outperform If the Economy Tips Into Recession? | Western Asset

The Cordell study provides a clear historical track record that CLO residuals do not suffer complete losses during periods of financial stress. In addition to the reasons cited above, residuals are priced well below par (unlike corporate bonds), reflecting both the high discount rates and an expectation of some credit losses. As a result, the interest payments are a meaningful contributor to the overall value--again, unlike corporate bonds. Even in a severe stress, both the Cordell and OW studies demonstrate that CLO equity investors can still expect to receive cash flows.

CTE 90 vs VAR 95-99 percentile

Some RBC-IRE members have asked about the difference between contingent tail exposure ("CTE") 90 and Value at Risk ("VaR") at the 95th or 99th percentile. While CTE represents the average probability-weighted loss above a certain probability level, VaR represents the loss at a specific probability level. The American Academy of Actuaries is using a CTE approach, so if the CTE 90 level is what becomes adopted, that would calculate the average of losses above the 90th percentile. The OW study examined losses at both the 95th and 99th percentiles. Those are both specific percentile points of the loss distribution but are at the higher end of the CTE 90 average range. This difference can also be explained by the fact that the OW study used stress tests during three different periods of financial stress, which is not compatible with the kind of Monte Carlo simulation used to calculate CTE. Also, the purpose of the OW study was to compare the interim capital charge for ABS residuals to that of established NAIC capital charges for similar assets, and the NAIC has historically used a 94-96th percentile VaR to establish capital charges.

BSL residuals vs. the other ABS residuals in the OW study

The OW study clearly demonstrates that all three analyzed types of ABS equity outperformed common stock during periods of market stress, including the 2001 dot-com bubble, the 2008 Great Financial Crisis, and the 1930s Great Depression. However, given that the equity of one sub-type of collateralized loans ("CLOs"), namely broadly syndicated loans ("BSLs"), performed better overall than common stock but similar in the two medium-tail stresses, we asked finance Professor Daniel Svogun to perform a beta analysis to determine whether or not BSL equity has lower volatility than common stock.[7]

Professor Svogun was able to use time series data from Bank of America on CLO BSLs monthly median equity prices to calculate BSL equity beta using the NAIC's formula for measuring monthly volatility over a 60-month rolling window. The results of Professor Svogun's analysis (see chart below) demonstrate that the 60-month rolling beta of BSL

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7 Professor Daniel Svogun is a professor of finance at the Busch School of Business, Catholic University of America, whose research specializes in the "time value of money, ratio analysis, [and] the valuation of stock and bonds."
https://business.catholic.edu/faculty-and-research/faculty-profiles/svogun-daniel/index.html

equity is well below 1 (any beta result lower than 1 indicates less volatility relative to the S&P 500). This beta analysis compared the monthly CLO equity price change to the S&P 500 index performance each month. The beta of the full period studied (Dec. 2013 – Feb. 2024) with over 750 BSL CLOs included is .4989, which is well below the NAIC's .75 beta threshold for the lowest charge of 20%. The chart shows the 60-month rolling average beta following the NAIC's formula. During that time period, the beta of BSL equity remains below the .75 threshold in all but one month, where it reaches .7564. Note the time indicated in the x-axis is the ending period of the 60-month rolling beta. As a result, to be consistent with the principle of equal capital for equal risk, it would be more appropriate for the NAIC RBC charge for BSL equity to be adjusted to 20% using the NAIC's formula to adjust the equity capital charge according to its level of volatility compared to the S&P 500.
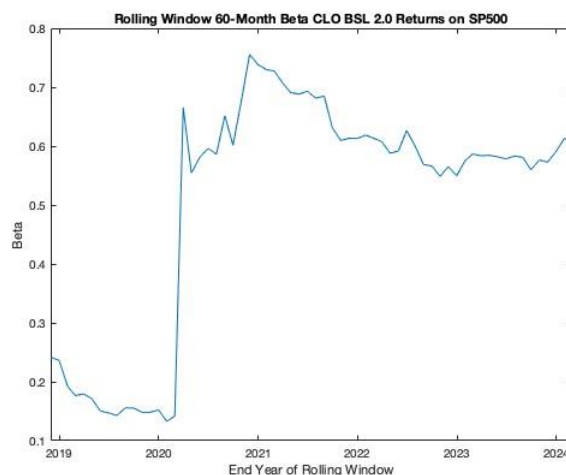
Bank of America CLO data; calculations from finance professor Daniel Svogun, Ph.D., Busch School of Business, CUA

This finding that BSL equity is less volatile than the S&P 500 should not be a surprise because it is consistent with the results of both the OW study and the Cordell CLO equity research paper. Furthermore, it provides additional evidence of the relative outperformance of BSL CLO equity compared to common stock.

The overly conservative nature of a single 45% ABS residual charge
In response to regulators' requests, we were able to anecdotally confirm that insurers invest in CLOs, investment-grade auto loan and student loan ABS residuals. However, several of our insurance and investment members noted that they invest in other types of ABS as well and expressed concerns about the inequity of a single residual C-1 charge of 45% for all ABS regardless of the type or quality of the underlying collateral.

One specific example where a 45% residual C-1 factor would be unwarranted is for

Commercial Property Assessed Clean Energy (C-PACE) ABS[8]. C-PACE ABS are backed by loans to U.S. commercial property owners that finance energy efficiency, water conservation and renewable energy projects. C-PACE loans are high-quality, super senior to a mortgage loan on a property, given that the loans are repaid as a benefit assessment on the property tax bill. However, it is uneconomic and unfeasible to rate or invest in individual C-PACE loans at scale due to the relatively small average ticket size.

As a result, C-PACE loans are aggregated in a securitization or structured product so that insurers can invest in the C-PACE asset class. However, the 45% C-1 charge on the residual tranche, even if it is a small part of the structure, can negatively impact the capital-adjusted risk-return profile of a C-PACE ABS. Insurance investors in C-PACE ABS are already subject to higher capital charges compared to investing directly in the underlying, so the interim 45% residual charge makes it even harder to justify the relative risk-reward analysis for an insurance investment. Investors are aware that the 45% residual charge is meant to be an interim one, but the reality is that it may be in place for many years, particularly for smaller ABS asset classes. This would, in effect, significantly disincentivize insurers from investing in high-quality and sustainable C-PACE assets.

Conclusion
At a high level, the OW analysis and findings demonstrate that expected losses in stress scenarios can vary depending on the underlying collateral and structure, which makes a single 45% residual charge inappropriate. As more information is gained on insurers' residual exposure, there are likely other types of ABS besides student loan ABS, auto loan ABS and C-PACE ABS for which a 45% charge would not be appropriate based on their specific level of risk. As a result, we respectfully request the NAIC to reconsider imposing the highest capital charge level in its history until the impact of this charge on all ABS residuals is better understood and determined to be appropriate.

We welcome the opportunity to discuss these supplementary comments and additional data analyses. From our perspective, there are now only two data-driven analyses available to you, both of which demonstrate that a single 45% charge on ABS residuals would not correspond to the actual levels of risk.

If you have any questions about the OW study, the Cordell paper or any other points made in this letter, please contact me or Joe Engelhard, Head of Private Credit & Asset Management Policy, Americas, at 202-304-0311 or jengelhard@aima.org. The ACC has

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8   C-PACE loans are used by commercial property owners to finance climate and environment-related projects, including climate resiliency, renewable energy, and water and energy efficiency improvements. *See generally*, "Credit FAQ: ABS Frontiers: The C-PACE Space Explained", (2024) at https://www.spglobal.com/ratings/en/research/articles/231213-credit-faq-abs-frontiers-the-c-pace-space-explained-12943764.

provided two similar comment letters to the RBC-IRE regarding the Oliver Wyman study (copy attached). All of the points in those two comment letters are summarized in this updated version.

Respectfully,

Jiří Król
Global Head of Alternative Credit Council

OliverWyman

RESIDUAL TRANCHE RISK ANALYSIS

February 26, 2024

Confidentiality

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Contents

1. Executive Summary

This report presents a quantitative analysis of the relative risk of residual tranches of Asset-Backed Securities (ABS). We analyzed the potential losses under historically-calibrated stress scenarios, considering both "mid-tail" (~95th percentile) and "deep-tail" stress scenarios, on a portfolios of residual tranche deals. This analysis then enables us to compare the decline in valuation of these assets to the losses experienced by other asset classes in the corresponding stress periods.

In Section 1, we observe the growing significance of structured products to insurer balance sheets. We then outline the primary objectives of this report: to conduct a fact-based assessment of ABS residual tranches that enables objective comparisons to other common assets and provides data to help inform the calibration of the capital charge of residual tranches. We then outline the guiding principles on which we based our analytical approach, including aligning our approach with the approaches taken by the NAIC in its calibration of the capital charges for other investment assets.

In Section 2, we describe our methodological approach to assessing the risk associated with residual tranches ABS deals. We begin by describing the process by which we determine the scope of assets for our analysis, namely CLOs, auto loans, and student loans, and the selection of the specific deals in our analysis. Next, we present our modeling approach, a scenario-based approach that considered the cash flows available to these tranches. We then describe, for each asset type, the method used to calibrate our base scenario, mid-tail (95th percentile), and deep-tail stress scenarios, including the choice of historical data. We conclude this section with a discussion of the balance sheet treatment of residual tranches and the output metrics examined.

In Section 3, we discuss the results of our analysis. Our analysis focused on the decline in fair-value, measures as the net present value of the cash flows available to the residual tranche under each scenario. We find that these losses vary, among other factors, based on the underlying collateral and residual thickness. For the asset types examined, losses at a portfolio-level ranged from -42% for broadly syndicated CLOs to -6% for prime auto loans under mid-tail scenario.

In Section 4, we compare the observed losses, on both an aggregate basis and for each asset type, with those of other common assets, specifically common stock, commercial real estate, and corporate bond. We find that ABS residual tranches realize lower losses on a portfolio-level than does common stock under corresponding levels of macroeconomic stress, though ABS residual tranches realize greater losses than do commercial real estate and low-rated corporate bonds.

The subsequent report is intended to provide a data-driven and objective analysis to bring fact-based insight into an under-researched topic within the insurance industry.

2.   Introduction

2.1.   Context

In recent years, insurance companies have increased their allocation assets to structured products – including Asset-Backed Securities (ABS) – in efforts to build an attractive investment portfolio to support policy obligations. These insurers strategically allocate a portion of their assets to these securities, typically with the dual goals of enhancing their investment returns and diversifying their portfolio by accessing a broader spectrum of investment opportunities. Figure 1[1] illustrates this growth in CLO exposure across insurers as a percentage of bonds and of cash and invested assets. The complexity of structured ABS, particularly the residual tranches, have raised concerns about the value of these assets during stress periods.

Figure 1: US insurer CLO exposure, % (annual 2018-2022)
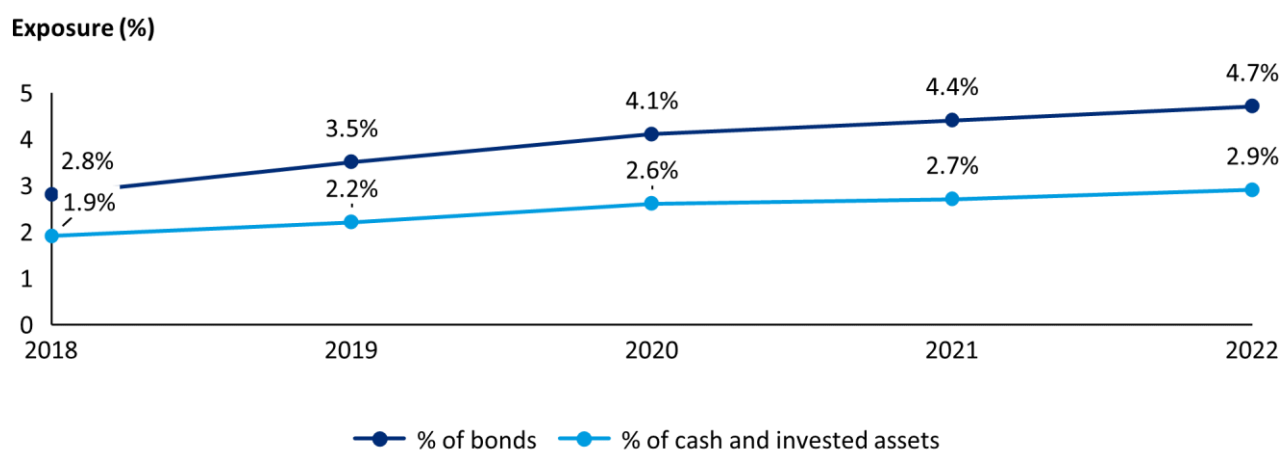
Exposure (%)

Structured products are financial instruments crafted to offer investors exposure to a wide range of underlying collateral including, but not limited to, corporate loans, auto loans, and student loans. The specific mechanics of these products have evolved over time and vary by sector. However, the products most often have different tranches, ranging from most-senior (often AAA-rated) to most junior (residual equity), to meet the risk appetite and return requirements of different types of investors. The relative risk of the tranches is largely determined by the order of the cash flows paid from the underlying collateral; that is, senior tranches receive cash flows first, and subsequent payments cascade down the deal's "waterfall" until they reach the equity tranche, which is paid last. This payment hierarchy ensures that investors in different tranches are treated fairly and receive their payments according to the predetermined order.

The complexity of structured ABS, particularly the residual tranches, combined with their increased prevalence, has raised concerns about the potential losses on these assets during stress periods and resulted in an increase in scrutiny from regulators and other industry stakeholders. The NAIC recently begun to undertake a broader review in 2023 of its capital approach for structured products, including ongoing efforts around CLOs. However, as an intermediate measure, it has proposed applying a 45% capital charge for residual

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[1] U.S. insurer CLO exposure to bonds and cash & invested assets from 2018 - 2022 (%): *NAIC, "Continued Double-Digit Increase in U.S. Insurers' Collateralized Loan Obligation Exposure in 2022" (2022)*

tranches. The NAIC has indicated an interest in receiving quantitative analysis of the risk profile of residual tranches from industry participants to inform its calibration of the factor applied to these assets.

2.2.   Objective of report

In this report, we focus on the residual equity tranche of asset-backed securities (ABS), which generally have the lowest-priority entitlement to cash flows within the broader deal waterfall. Limited rigorous quantitative analysis has been performed to evaluate the risk associated with these assets and support a calibration of a capital charge for use within the NAIC's Risk-Based Capital framework. This report seeks to remedy this gap by:

- Applying a fact-based assessment to evaluate the risk profile of residual tranches of ABS

- Enabling an objective comparison of the risk profile of residual tranches to other commonly held assets, such as equities, real estate, or corporate bonds

- Providing data to help inform the calibration of the capital charge of residual equity tranches

2.3.   Guiding Principles

We designed our analytical approach based on three guiding principles:

- First, our modeling approach was, to the extent possible, based on the NAIC's own methodology to calibrate RBC charges for other investment assets

- Second, our approach aimed to capture the substantial variation in the underlying collateral as well as structuring between asset classes.

- Third, we designed our approach to be based on projected cash flows isolating losses due to credit risk, as opposed to other risks such as interest rate or liquidity risk

2.4.   Precedents

Historically, the NAIC has used a range of similar methodologies to calibrate the capital charge of different asset classes. To inform the analysis undertaken in this paper, we surveyed these approaches to identify the methodologies and approaches applied. **Table 1** shows the approach the NAIC has taken in determining the RBC charges for corporate bonds, equities, and real estate.

Table 1: Select RBC charge calibration approaches

Asset		RBC charge	Timing	Severity	Calibration approach
Corporate bonds	NAIC 1	0.16%-1%	10-year loss horizon	96th percentile (for the entire bond portfolio)	Simulation (cumulative defaults under 2,000 stochastic trials)
	NAIC 2	1%-2%			
	NAIC 3	3%-6%			
	NAIC 4	7%-12%			
	NAIC 5	16%-30%			

	NAIC 6	30%			
Equities		30%[2]	2-year loss horizon	94th percentile	Historical data (S&P 500 from 1960-1991)
Real Estate		11%-13%	2-year loss horizon (to capture economic cycle)	96.8[th] percentile confidence level	Historical data (national database of real property and mortgage securities data from 1978-2020)

Based on this survey, we identified five components of the prior calibration efforts that informed our methodological approach:

- Capital charges were calibrated at a 94-96th percentile
- Calibration was based on historical data (period and length vary by asset class)
- Calibration considered a multi-year window to capture full length of an adverse event
- Losses were measured on an aggregated basis for the relevant asset class, by examining performance of an index or diversified portfolio
- Metrics used to measure losses, while varying, reflect the balance sheet treatment for asset type

Our methodology is consistent with these observations by:

- Evaluating losses at the 95th percentile event or "mid-tail" (vs. Deep-tail)
- Using historical experience for underlying collateral to calibrate potential losses
- Calibrating losses over the full credit cycle
- Considering aggregate performance of a representative portfolio of assets
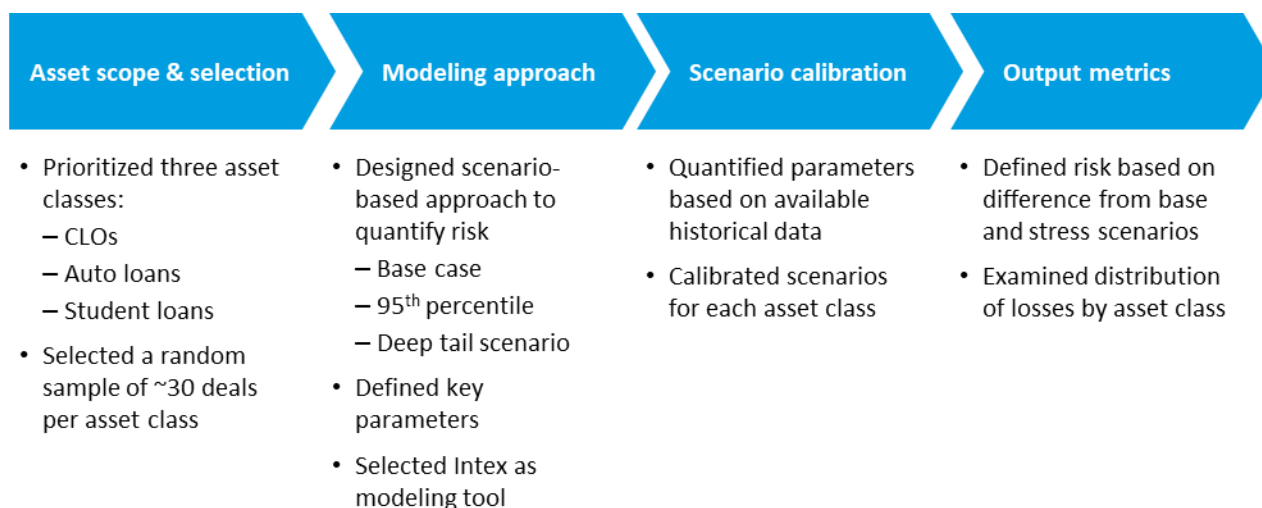- Defining risk metrics consistent with balance sheet treatment

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[2] For $\beta = 1$

3.   Methodology

We structured our methodological approach into four primary steps. First, we determined the asset scope and selection of deals for modeling. Second, we determined our modeling approach, which utilized a scenario-based methodology to quantify the relative risk of these assets. Third, we calibrated specific stress scenarios to simulate against these deals. Fourth, we defined the output metrics to measure the impact of these stress scenarios on the portfolio of in-scope deals. **Figure 2** provides an overview of this approach.

Figure 2: Overview of approach

Asset scope & selection	Modeling approach	Scenario calibration	Output metrics
• Prioritized three asset classes: — CLOs — Auto loans — Student loans • Selected a random sample of ~30 deals per asset class	• Designed scenario-based approach to quantify risk — Base case — 95th percentile — Deep tail scenario • Defined key parameters • Selected Intex as modeling tool	• Quantified parameters based on available historical data • Calibrated scenarios for each asset class	• Defined risk based on difference from base and stress scenarios • Examined distribution of losses by asset class

The following sections provide additional information on the asset scope & selection, modeling approach, scenario calibration, and chosen metrics.

3.1. Asset Scope & Selection

3.1.1. Asset Scope:

We selected three classes of ABS on which to focus our analysis: CLOs, auto loans, and student loans. These classes were chosen as they compose the largest share of outstanding ABS volume. We further segmented CLOs into Middle-Market (MM) and Broadly Syndicated Loan (BSL) CLOs and auto loan ABS into prime and subprime auto loan ABS. **Figure 3** illustrates the total ABS outstanding volume by asset class.

Figure 3: ABS total outstanding volume by asset class, $B (%) (2021)[3]
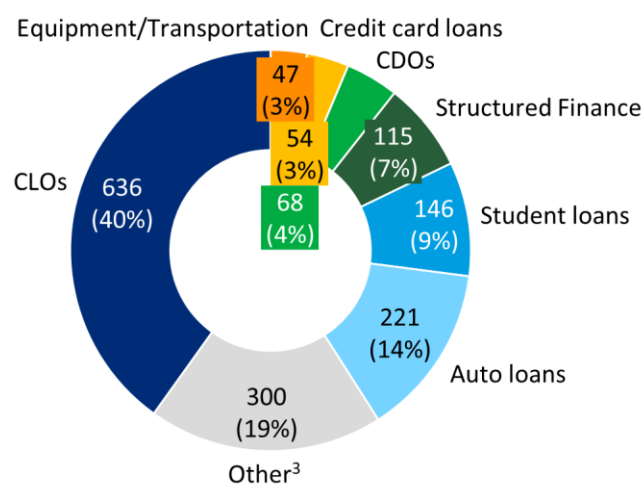
The figure shows that CLOs represent the plurality of the total US ABS market (40%), while auto and student loan ABS represent the next largest shares among individual asset classes (14% and 9%, respectively). Asset classes such as Collateralized Debt Obligations (CDO), credit card loans, and equipment/transportation represent a small share of the ABS market (4%, 3%, and 3%, respectively).

We examined the two largest segments of the CLO market: Middle-Market (MM) and Broadly Syndicated Loan (BSL) CLOs (which make up roughly 90% of the CLO market). Similarly, we examined the two largest segments of the auto loan ABS market: prime and subprime (which make up roughly 75% of the Auto ABS market).

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[3] ABS total outstanding volume by asset class in 2021 (%): *SIFMA US ABS Securities*

3.1.2. Selection Process:

For each subclass of ABS, we followed the steps below in **Figure 4** to select an appropriate set of securities to model.

Figure 4: Overview of asset selection process

Filter deal pool	Draw random sample	Compare characteristics	Adjust sample for technical limitations

• **Vintage:** Limited sample to vintages from 2021-2023
 	
• **Geography:** Limited sample to US deals
	• Selected random sample of 30 deals from total pool	• Compared the characteristics of sample to total pool (e.g., deal value, residual thickness, issuer)	• Excluded deals subject to technical limitations:
			  – Insufficient or restricted data in Intex
			  – Non-standard structuring that limited ability to model
			
			• Replaced with new, randomly sampled deal

We selected a random sample of deals to model within each subclass: CLOs (both MM and BSL), auto loans (both prime and subprime), and student loans. The selection process was consistent across all the asset classes in scope. This process, although random, controlled for two factors: vintage and geography. First, we limited our sample to vintages originated between 2021 and 2023. This approach was taken to reflect current deal structures and because these deals comprise a greater portion of the outstanding issuance – and will thus be most relevant to future implementations of proposed capital rules. Additionally, we only included US deals, as these are the most relevant for US-based life insurers. After applying the two filters to the broader deal universe of each respective asset class, we selected a random sample of thirty deals from the total pool of deals modeled in Intex[4]. This sample size was chosen to achieve sufficient statistical breadth while maintaining a manageable volume of deals. We assumed that the process of random sampling would yield a statistically representative sample. After selecting a random sample of deals, we compared summary statistics of our sample with the full universe of US deals originated between 2021 and 2023, which can be seen in Section A.4 of the Appendix, and in all cases observe similar distributions across the examined characteristics. Finally, we adjusted the sample as needed on a case-by-case basis, due to either technical constraints (e.g., insufficient or restricted data on the deal in Intex) or individual deal characteristics (e.g., nonstandard structuring). **Table 35** provides a list of all deals excluded from our analysis.

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[4] See Section A.4 of appendix for summary statistics of sample compared to total deal universe

3.2. Modeling Approach

We utilized a scenario-based approach to measure the relative risk of ABS residuals across simulated base and stress cases in Intex. We chose to use Intex due to the breadth of ABS deals accessible within the platform, the thorough coverage of the specific legal terms of our in-scope ABS, and Intex's capability to generate resulting cash flows of deals based on assumptions about the underlying collateral behavior.

Several decisions guided our modeling approach:

- We evaluated multiple historical, stress scenarios which was consistent with NAIC's methodology of calibrating the RBC charges of other asset classes based on observed historical experience (e.g., equities and real estate). We did not use a stochastic methodology to estimate the impact of stress on the value of residuals because of a lack of historical data of the underlying investment sufficient to make such a complex statistical models robust.

- We designed three stress scenarios to simulate the impact of a range of severities in adverse economic conditions on the in-scope asset classes.

- We applied stress to the underlying collateral of the assets rather than the bonds comprising the ABS. This is because the value of equity tranches is derived from the value of the underlying assets, for which there is more robust available data.

- We determined the severity of our scenarios based on several factors. To maintain consistency with how the NAIC has calibrated capital charges historically, we created two stress scenarios of approximately 95th percentile severity[5], considering relative historical and economic significance events with different default timing profiles. In addition, to understand the potential for losses in a deep-tail event, we also considered a "Deep-tail" scenario, modeled after the Great Depression, and intended to reflect approximately a 99th percentile severity. We did not have sufficient data to conduct a robust statistical analysis to directly model the severity for this scenario. Rather, we used default rates of Corporate Bonds from Moody's Investors Service as a proxy for increase in credit losses under the Deep-tail scenario. **Figure 5** illustrates annual corporate bond default rates from 1920-2021. During this approximately 100-year period, we observed four large spikes in default rates: the Great Depression (1931-1940), Savings & Loan Crisis (1986-1992), the Dot-Com Crisis (1998-2003), and the Global Financial Crisis (2008-2010). This experience suggests that the spikes observed in these events are approximately 1-in-20 events in terms of excess defaults. The Great Depression, by contrast, is closer to a 1-in-100 event in terms of excess defaults.

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[5] This approach differs from the methodology that the American Academy of Actuaries is applying in its work on CLOs, which uses CTE90 as the risk metric. For a normal distribution, CTE90 is equivalent to approximately the 95th percentile. The choice of CTE90 reflected in part concerns around the performance of residual tranche ABS in more severe, or "Deep-tail" scenarios. The analysis in this report also considers the performance of these assets in a deep-tail scenario.

Figure 5: US corporate bond default rates, % (annual 1920-2021)[6]
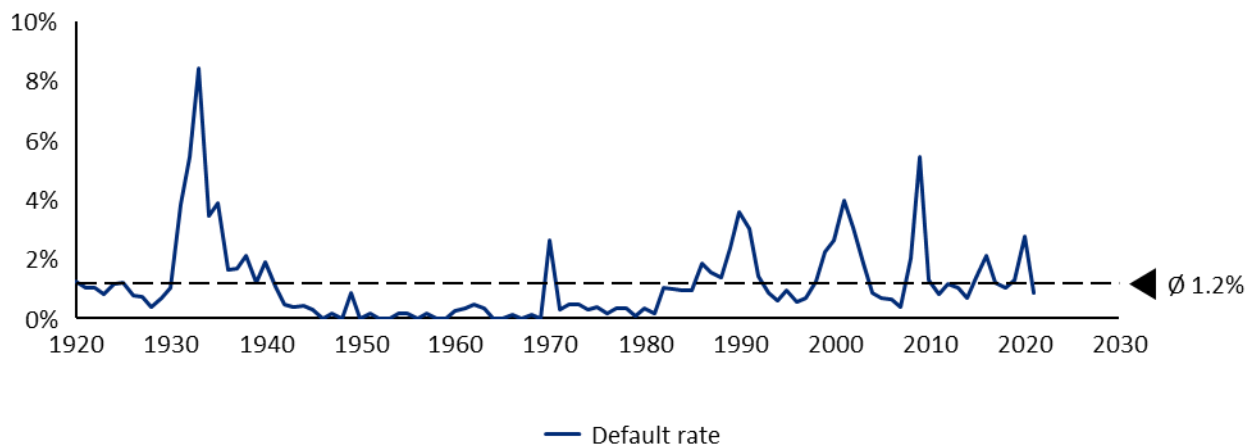
- Additionally, we observed that excess default losses (i.e., principal in default above the long-term average) for the US LSTA 100 were both higher than 95th percentile excess default losses for the relevant loss horizons (2 years for GFC and 4 years for Dot-Com bubble), as depicted in **Figure 6**. This analysis applies a similar approach to that used by the NAIC in its calibration of the capital charges for common stock and real estate, namely determining the percentile losses based on a rolling window, and the approach was chosen to reflect our guiding principle of consistency. While this analysis is based on a 24-year time series, it supports use of the GFC and Dot-Com stresses as suitable 95th percentile stress scenarios.

Figure 6: US LSTA 100 95th percentile excess defaults by loss horizon, % (1999-2022)[7]

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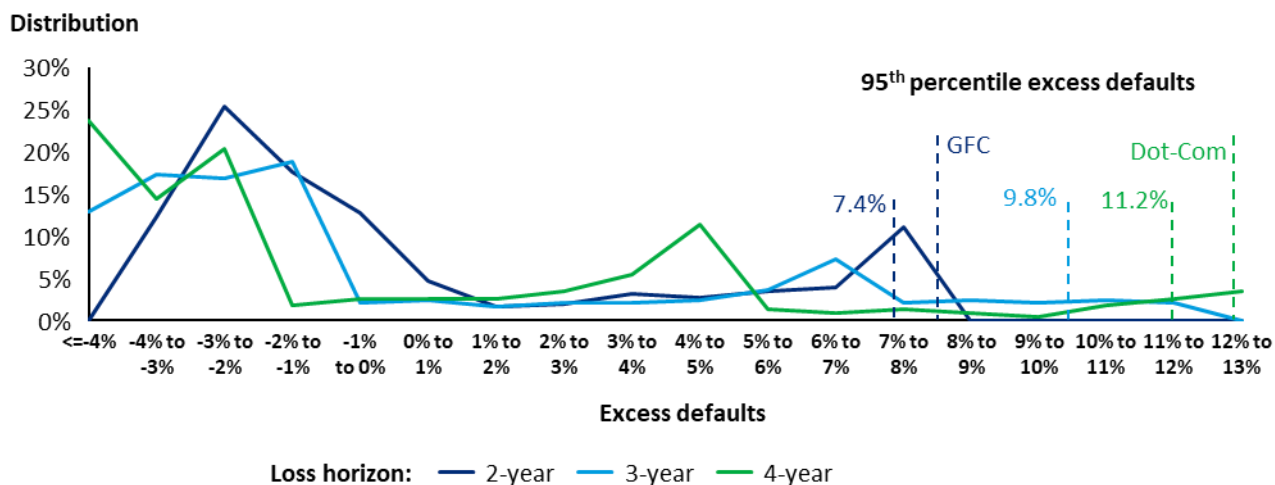
[6] Annual U.S. corporate bond default rates from 1920 - 2021 (%): *Moody's Investors Service, "Corporate Default and Recovery Rates" (2021)*

[7] Excess defaults are defined as the defaults in excess of the long-term average (1999 – 2022). The 95th percentile excess defaults are calculated for each loss horizon from 1999-2022 (%): *S&P, U.S. LSTA*

- Our selection of parameters was determined based on relevance to the underlying assets being stressed. We used available historical data to derive parameters which we used as inputs in Intex. We used these parameters to build stress scenarios and applied those scenarios to a portfolio of randomly selected deals within each in-scope asset class. The subsequent section provides more detail on specific parameters used for each segment.

3.3. Scenario Calibration

This section discusses the methodology used to calibrate scenario-level modeling parameters, including default rates, recovery rates, prepayment rates, recovery lags, delinquency rates (for auto loans), and reinvestment period assumptions. In the calibration of the scenarios, the intention was to reflect both the severity and duration of a Mid-tail (~95 percentile) and Deep-tail event. As such, we consider the level of excess defaults over the credit cycle. A limitation of this approach is that no historical time series on the relevant underlying collateral included a Deep-tail event (that is, an event of similar severity to the Great Depression). As a result, we relied on the experience of corporate bonds during this period to serve as a proxy for the potential performance of the underlying collateral and applied a similar increase in default rates and/or level of excess defaults.

3.3.1. CLOs

Table 2 shows the calibration of scenario-specific modeling parameters. With the exception of the default rate, which was calibrated separately to account for difference in the credit quality of the underlying loans, common parameters were used for the BSL and MM segments.

**Table 2: Scenario-level parameters for CLOs**

| Parameter	Base	Mid-tail (~95th percentile)		Deep-tail
		Dot-Com	GFC	
Peak default rate *(BSL)*	2.6%	2.7x multiplier *(peak)*	3.9x multiplier *(peak)*	5.9x multiplier *(peak)*
Peak default rate *(MM)*	4.1%			
Excess defaults *(BSL)*	N/A	11.9%	7.6%	33.7%
Excess defaults *(MM)*	N/A	18.4%	11.8%	52.2%
Recovery rate	66.4%	61.1%	58.0%	55.9%
Prepayment rates	24.8%	18.4%	14.0%	10.0%
Recovery lag	18 months	18 months	18 months	18 months
Reinvestment	None	None	None	None

3.3.1.1. Baseline scenario

We constructed a baseline scenario for CLOs by calculating long-term averages of the applicable parameters based on available historical data. For default rates, we primarily relied on historical data from the S&P Loan Syndications and Trading Association (LSTA) 100 index series from 1999-2022, which is shown in **Figure 7** below. Additional adjustments were made to account for differences in the underlying collateral quality of BSL and MM and discussed later.

Figure 7: Default rates, % of principal (monthly 1999-2022)[8]
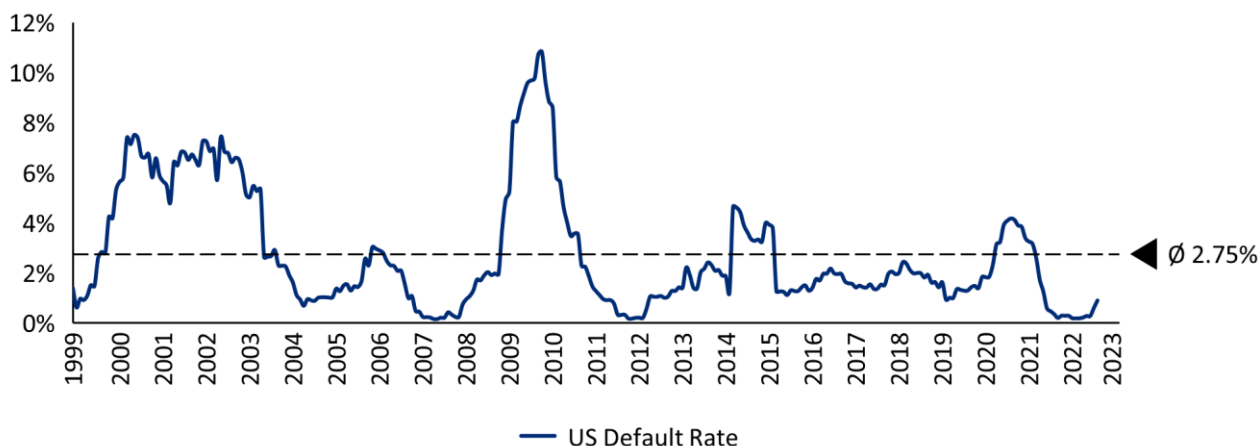
For recovery rates, we set a baseline recovery rate of 66.4%, which is the long-term average rate of the LSTA series from 2001 to 2023),[9] as shown in **Figure 8**.

Figure 8: Recovery rates (1st lien loans), % of principal, (monthly 2001-2023)[10]

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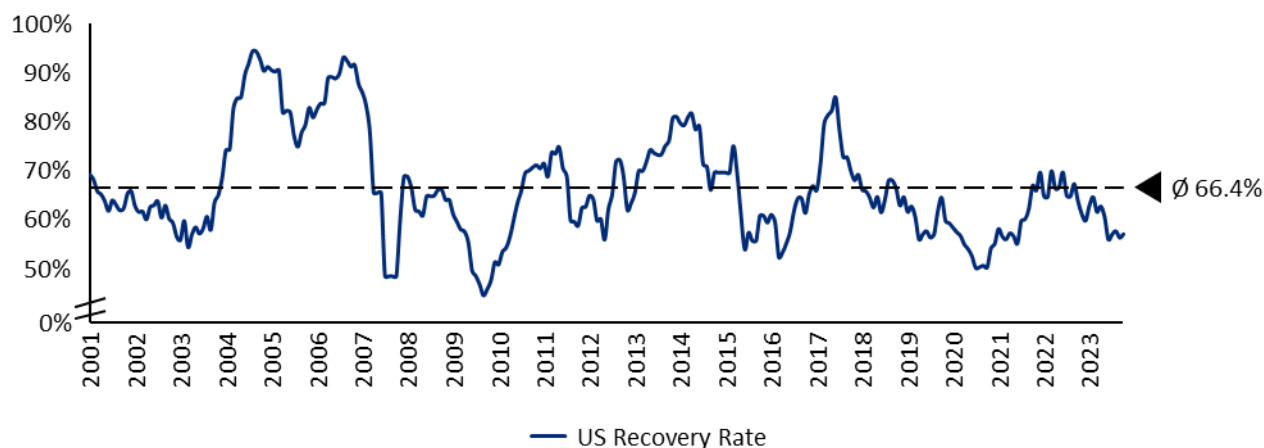
[8] Bank loan default rates from 1999 - 2022 (% of principal): *S&P, U.S. LSTA*

[9] Monthly 1st lien loan recovery rates from 2001 - 2023 (% of principal): *BofA Global Research, LCD, Moody's*

[10] Monthly 1st lien loan recovery rates from 2001 - 2023 (% of principal): *BofA Global Research, LCD, Moody's*

Although our assumptions for MM and BSL CLOs were similar for most parameters, they varied with regard to the assumed baseline default rate, which was derived as a weighted average based on the credit rating distribution of the two CLO types. We assume that rating-adjusted corporate bond default rates are approximately equal to rating-adjusted bank loan default rates. The ratings, which were sourced from S&P Global, can be seen in **Figure 9**, while the market shares can be seen in **Figure 10.**

Figure 9: Ratings distribution of CLO obligors, % (2023)[11]
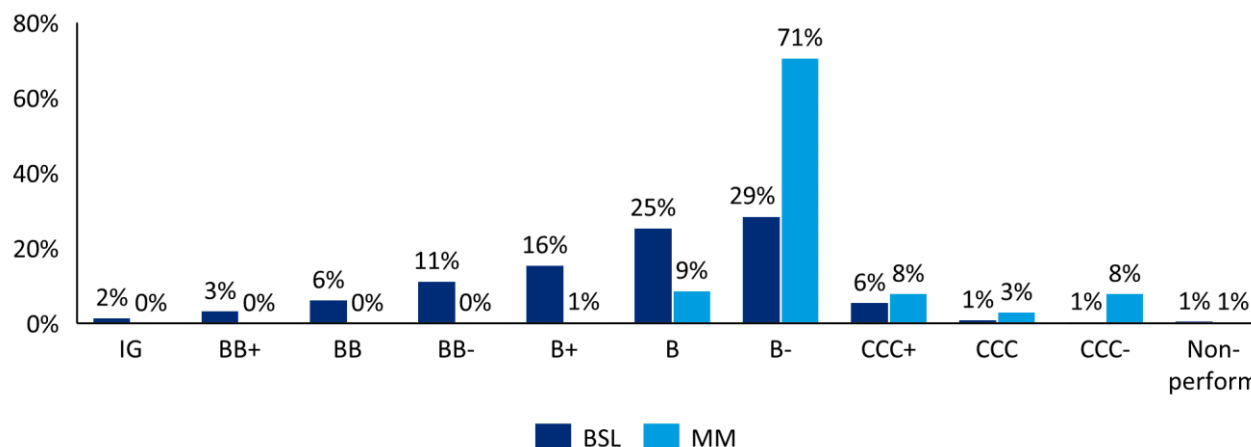
Figure 10: CLO market shares by type, % (2023)[12]

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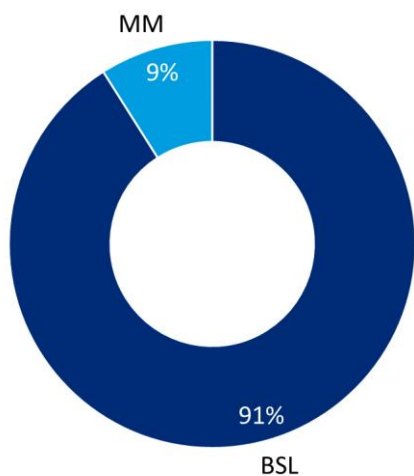
[11] Ratings distribution of CLO obligors in 2023 (%): *S&P Global Ratings, "Middle-Market CLO and Private Credit Quarterly (Q4 2023)"*
[12] MM CLO and BSL market share in 2023 (%): *S&P Global Ratings, "Middle-Market CLO and Private Credit Quarterly (Q4 2023)"*

Ultimately, this approach yielded a baseline default rate of 4.1% for MM CLOs and 2.6% for BSL CLOs. As a check on this methodology, we compared our aggregated weighted average default rate (2.80%) with that of the average default rate of the S&P LSTA index (2.75%) based on the available time series data (1999-2021). The remaining parameters were consistent across both MM and BSL CLOs.

Our prepayment rate of 24.8% was derived from the average 1m annualized CPR based on the accessible historical data from BofA Global Research (2002-2023)[13]. We assumed an 18-month recovery lag across the base scenario based on an industry standard assumption; for example, Moody's[14] assumes an 18-month recovery lag in their CLO modeling. We assumed no reinvestment in all scenario; this approach is more conservative than typical market practice that assumes reinvestment at market rates. Additionally, sensitivity testing was conducted on these assumptions and is discussed later.

3.3.1.2.   Mid-tail (~95th percentile) scenarios

To calibrate the default rates under the "Mid-tail" scenarios, we examined the level of defaults under two adverse credit cycles, the GFC and Dot-Com Crisis, for the S&P LSTA. While both credit events had similar levels of "excess defaults", that is the volume of defaults that occurred over the adverse portion of the credit cycle compared with the long-term average, the shape of these events differed significantly. The GFC represented a shorter, but deeper credit shock (22 months of excess defaults); the Dot-Com Crisis was a longer event (45 months of excess defaults). For both events, we applied the ratio of the default rate to the long-term average from the start of the adverse credit period (that is, when the default rate above the long-term average) until it returned to the long-term average. This path was then applied as a multiplier to the Base default rates for both BSL and MM to match the shape and scale of the two stress scenarios. This approach also allowed us to assess the sensitivity of our results to the shape of shock (short and deep vs. long and shallower).

Figure 11 below shows the historical default rate for the LSTA.

Figure 11: Bank loan default rates, % (monthly 1999-2021)[15]

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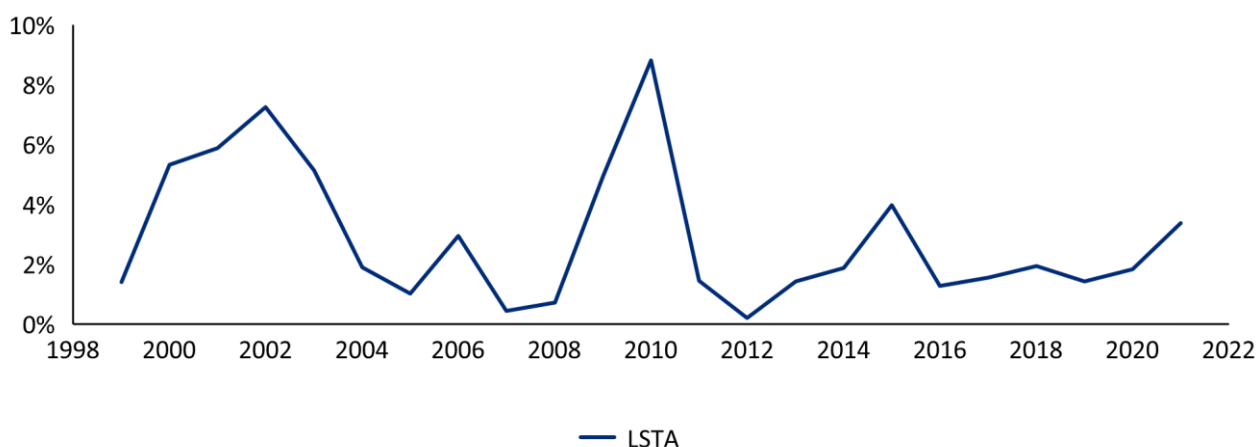
[13] 1m Annualized CPR from 2002 - 2023: *BofA Global Research, LCD, Moody's*

[14] *Moody's Investors Service, "Moody's Global Approach to Rating Collateralized Loan Obligations" (2021)*

[15] Monthly bank loan default rates from 1999 - 2021 (%): *S&P, U.S. LSTA*

We calibrated recovery rates by using the average recovery rate throughout the stress cycle that followed the Dot-Com Crisis (61.1%) and GFC (58.0%), respectively, then reverting to the long-term average value (66.4%) in the periods that followed the stress. To calibrate prepayment rates, we calculated the average 1m annualized CPR for the duration of the stress (defined as periods in which the prepayment rate was less than the long-term average) for the Dot-Com Crisis and GFC, respectively. This approach yielded a prepayment rate of 18.4% for Dot-Com and 14.0% for GFC. We applied those prepayment rates for the duration of the stress, then reverted the rates back to the long-term average (24.8%) in the post-stress periods. Similar to the baseline scenario, we assumed an 18-month recovery lag based on the industry standard assumption and, for conservatism, no reinvestment.

3.3.1.3.   Deep-tail scenario

As direct historical information is more limited for the "Deep-tail" scenario, we utilized historical performance data of corporate bonds during the Great Depression as a proxy for the relative losses accumulated during the modeled stress period.

To calibrate our default rates, we examined the experience for corporate bonds during the Great Depression and quantified the increase in default rates relative to the long-term average default rates. This default rate path (defined as percentage increase over the long-term average) was then applied to the baseline defaults for CLOs.

We determined stress recovery rates (55.9%) based on the lowest two-year average recovery rates within the available data range (which corresponds to June 2019 – June 2021[16]) and applied this value for a ten-year period (to match the duration of the Great Depression default curve) before reverting to the long-term average.

To calibrate our prepayment rates, we used the lowest two-year average CLO 1m Annualized CPR rate data (which corresponds to September 2007 – September 2009[17]) and applied this value (10.0%) for the ten-year stress period before reverting to the long-term average (24.8%). Similar to the baseline assumption, we assumed an 18-month recovery lag based on the industry standard assumption and, to be conservative, no reinvestment.
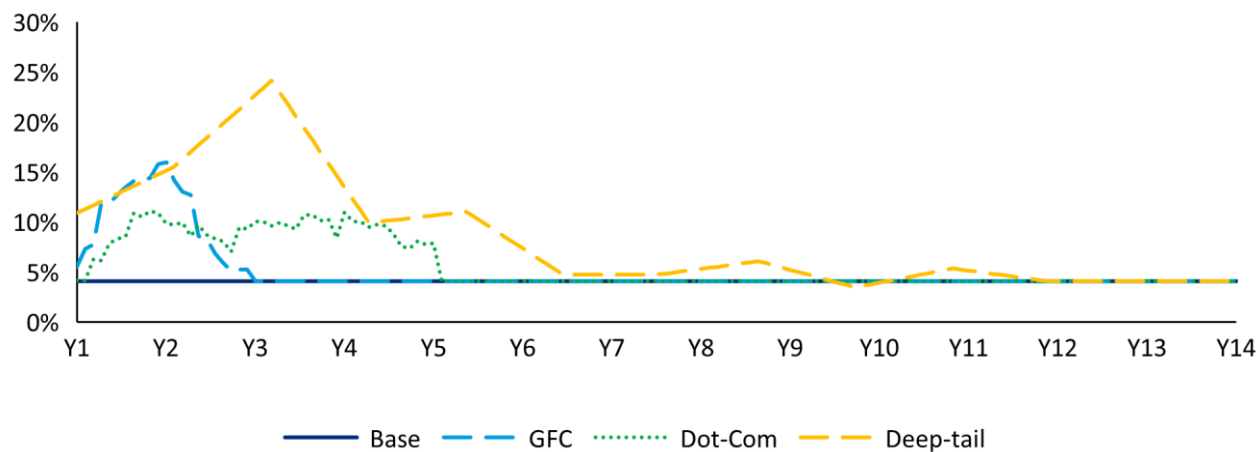
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[16] Recovery rates from June 2019 - June 2021: *BofA Global Research, LCD, Moody's*

[17] CLO 1m annualized CPR rate from September 2007 - September 2009: *BofA Global Research, LCD, Moody's*

Figure 12: Broadly syndicated CLO annualized CDR curves, %
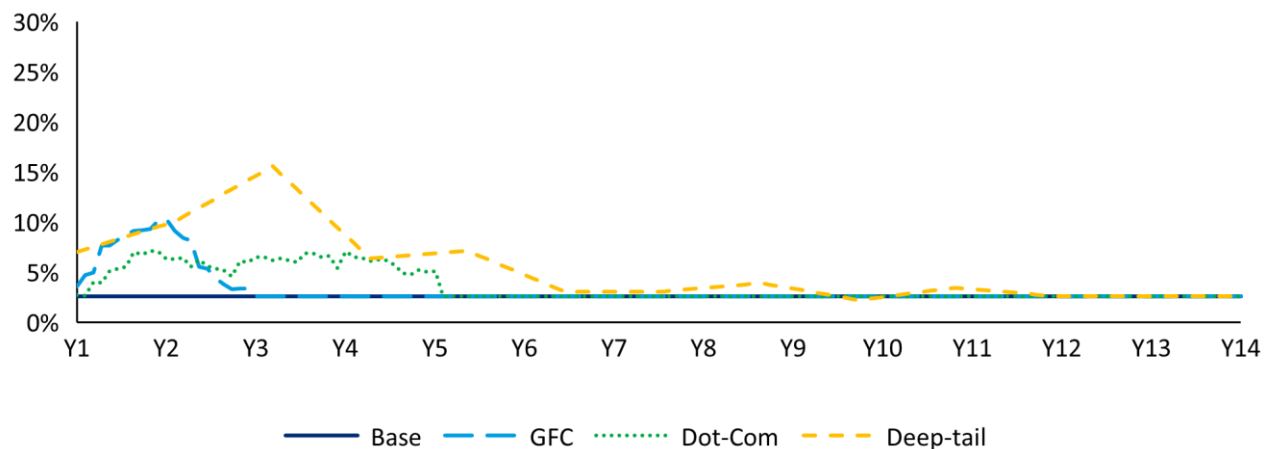
Figure 13: Middle-market CLO annualized CDR curves, %

3.3.2. Prime and subprime auto loan ABS

To calibrate scenario-level parameters for auto loan ABS, we followed a similar methodology as was followed for CLOs. Parameters were calibrated separately for prime and subprime auto loan ABS. We relied primarily on historical data on prime and subprime auto loan performance from Fitch Ratings; selected as it provided the longest time series from a reputable source.

Table 3: Prime auto loan ABS scenario parameters

Parameter	Base	Mid-tail	GFC	Deep-tail
Peak default rate	1.6%	3.2%	4.4%	6.8%
Excess defaults	N/A	7%	5%	30%
Severity	41%	52%	52%	54%
Delinquency rate	0.4%	0.6%	0.6%	0.6%
Prepayment rate	1.5%	1.5%	1.5%	1.5%
Recovery lag	6 months	6 months	6 months	6 months

Table 4: Subprime auto ABS scenario parameters

Parameter	Base	Mid-tail	GFC	Deep-tail
Peak default rate	12%	16%	19%	41%
Excess defaults	N/A	14%	4%	27%
Severity	55%	61%	61%	62%
Prepayment rate	1%	1%	1%	1%
Recovery lag	6 months	6 months	6 months	6 months

Figure 14: Auto loan TTM annualized default rate, % (2005-2023)[18]
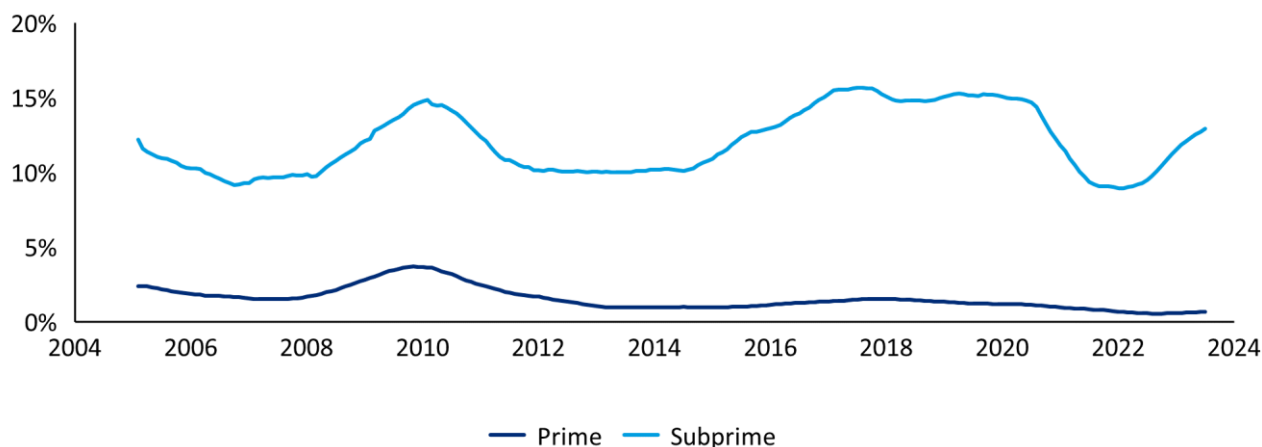
3.3.2.1. Base scenario

Our base scenario was constructed using the long-term average default rate and severity for prime and subprime for data from Fitch Ratings. Base prime delinquency rates were also determined by taking the average prime delinquency rate across the entire time series (from 2004 - 2023). Base prepayment rates were assumed based on deal-level data[19] and held constant across scenarios. Recovery lag was assumed based on rating agency auto loan ABS stress testing methodology[20] and held constant across scenarios.

3.3.2.2. Mid-tail (~95th percentile) scenarios

To calibrate the default rates under the "Mid-tail" scenarios, we examined three events (i) the GFC, during which both prime (2007-2011) and subprime (2008-2010) auto experienced above-average default rates, (ii) for subprime, heightened losses in 2015 - 2020, and (iii) as prime loans did not experience elevated losses during that period, a hypothetical event calibrated to the Dot-Com bubble, using scaled corporate bond default rates during that period (1998-2003) as a proxy to estimate prime auto loan default rates.[21]

For the GFC scenario, behavior of the modeling parameters for both prime and subprime auto loans were based on observed, historical experience during the GFC. The default rate curves for prime and subprime auto loans, as well as the severity curves for prime and subprime auto were used in Intex to simulate the GFC stress. For prime auto loan ABS, stressed delinquency rates were assumed to be the average delinquency rate during the GFC. Delinquency rates were not used as a parameter for subprime auto loan ABS due to limitations in Intex.

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[18] Derived based on ANL and Recovery Rate data from Fitch Ratings

[19] Auto loan ABS benchmarking: *S&P Research*

[20] Auto loan ABS benchmarking: *S&P Research*

[21] Annual U.S. corporate bond default rates from 1920-2021 (%): *Moody's Investors Service, "Corporate Default and Recovery Rates" (2021)*

Reliable historical data on auto loan performance was not available for the Dot-Com period as it was for CLO collateral. It was still desirable to measure the impact of a more attenuated, but longer, macroeconomic stress event. We designed a longer stress event for auto but the parameters for this event had to be estimated differently than for CLOs. For prime auto loan ABS, corporate bond default rates were scaled based on the ratio of default rates between two series during the GFC, a period during which both series had default rate data. This scaled default rate data was then used to estimate auto loan default rates during the Dot-Com bubble. Subprime auto, however, suffered a second stress period in addition between 2015 and 2020. We determined it preferable to use the actual historical data in this instance. Thus, the default rates from 2015-2020 were used as the default rates for the subprime auto loan ABS Mid-tail stress scenario. We term this scenario the "Mid-tail" scenario to avoid confusion with the historical Dot-Com scenario used for CLOs. Severity, prepayment, prime delinquency, and recovery lag each remained identical to their GFC calibrations, outlined above.

Note the because the average subprime auto loan default rate is relatively high (12%), the historical data shows that the GFC and 2015-2020 stress did not cause as extreme a spike in default rates relative to the historical average, as depicted in **Figure 16**, as is observed for prime auto loans. For comprehensiveness, the deep-tail scenario is more severe in terms of peak default rate and excess defaults than the two historical mid-tail scenarios.

3.3.2.3. Deep-tail scenario

Calibration of default rate curves for the Deep-tail stress followed a similar approach to that for CLOs. Corporate bond default rates during the Great Depression (1931-1940) were used as a proxy for the default rates of auto loans during a Great Depression-like economic event. As before, these default rates were scaled based on the ratio between the corporate bond and auto loan default rates during the shared GFC period. Deep-tail severity was estimated using the worst two-year average severity during the time series. Prime delinquency, prepayment, and recovery lag remained identical to their GFC calibrations.

Figure 15: Prime auto loan ABS annualized CDR curves, %
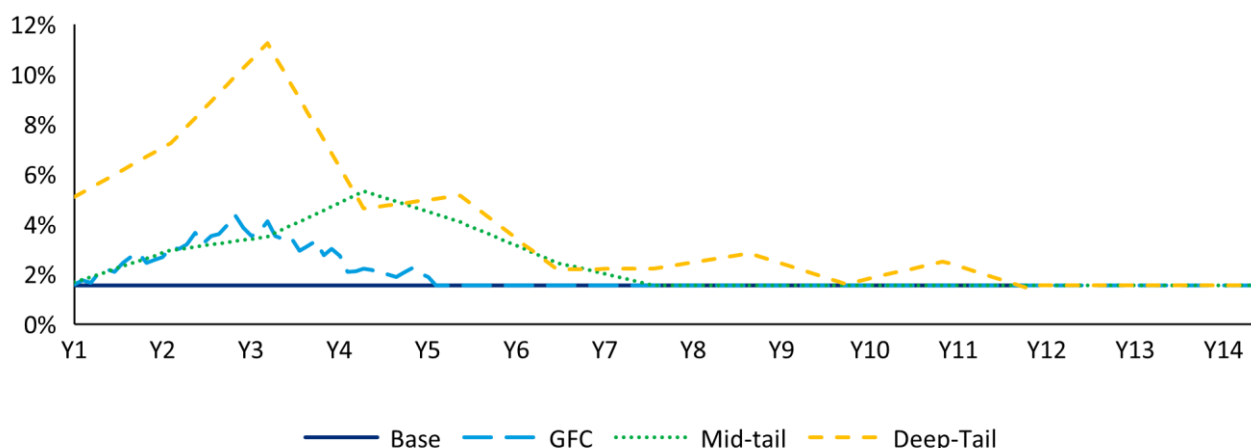
Figure 16: Subprime auto loan ABS annualized CDR curves, %
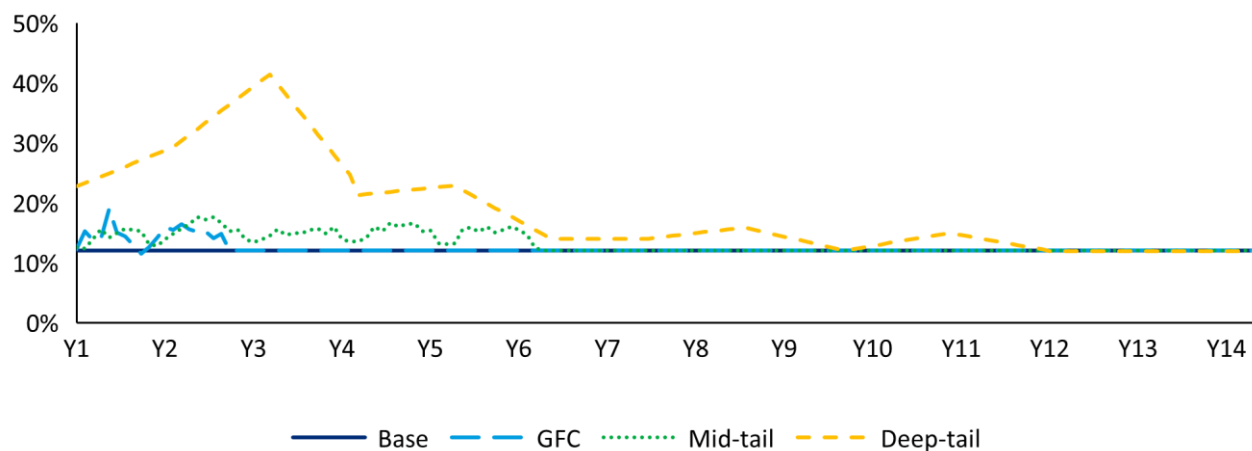
3.3.3. Student loan ABS

Table 5 shows the calibration of scenario-specific modeling parameters for private student loans. For student loans, we evaluated only a single "mid-tail" scenarios, that was calibrated based on the GFC.

Table 5: Student loan ABS scenario parameters

Parameter	Base	Mid-tail	Deep-tail
Default rate	10%	22%	22%
Excess defaults	N/A	10%	30%
Severity	69%	78%	78%
Deferment	5.8%	7.7%	7.7%
Forbearance	2.8%	4.5%	12.6%
Recovery lag	12 months	12 months	12 months

3.3.3.1. Base scenario

Analysis of student loan ABS presented challenges from a data adequacy perspective. We reviewed multiple potential sources of historical default rate data including, but not limited to, Intex, Fitch Ratings, and the National Center for Education Statistics (NCES), a federal agency. Each source captured a different universe of loans and definition of default rate that results in differences in the historical average default rates. Table 6 provides an overview of each potential source and its implied average default rates.

Table 6: Annualized student loan default rates by source

Source	Scope	Time span	Average annualized default rate
Intex	Private student loans	2008-2023	9.6%
Fitch	Private student loans	2015-2023	8.5%
NCES	Federal student loans	2011-2018	4.4%[22]

Ultimately, we chose to anchor our analysis on a base annualized default rate of 10%, but tested the robustness of our analysis to a base default rate of 8% or 12%. Base severity, deferment, and forbearance were assumed to be the long-term averages of each respective parameter, using the historical data available in Intex since 2008 . Recovery lag was assumed to be 12 months, with sensitivity analysis for a longer recovery lag period.

3.3.3.2. ~95th percentile scenario

The limited historical data availability for private student loans also affects the construction of the 95th percentile scenario. Ultimately, we took the approach of isolating the impact of the GFC on default rates by observing that the onset of the GFC resulted in a 47-month spike in default rates observed in the Intex data. We then applied the resultant excess defaults to our base default rate scenario. Severity, deferment, and forbearance were estimated by taking the averages of these parameters during the GFC; for each parameter, the stress period was defined as that period for which it exceeded its long-term average. Recovery lag was, as in the base scenario, assumed to be 12 months.

3.3.3.3. Deep-tail scenario

The Deep-tail scenario did not follow a similar approach to CLOs and auto loans, as corporate bonds were determined to be an insufficient analog to the performance of student loans. Student loan default and loss trajectories are not expected to follow corporate bonds, as the exposure is to narrow portions of the employment rate, interest rates, and college costs, all of which have weak correlation to corporate strains, making the latter a poor proxy. Instead, we assumed the same default rate curve as was used in our ~95th percentile stress scenario extended in duration by a factor of three, resulting in a 141-month long period of elevated defaults. Severity and deferment remained the same between the ~95th percentile scenario and the

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[22] NCES measures 3-year default rates by dividing borrowers in default over a three-year period by total population of a given three-year cohort. Annualized default rate estimated by dividing NCES figure by 2.5. Sample only includes federal student loans, while Intex and Fitch series include only private student loans.

Deep-tail scenario. Forbearance was assumed to be 12.6% for the full 141-month period, the value achieved during the 2020 COVID-19 period, and the highest value recorded in our historical data series.

Figure 17 shows annualized default rate curves for 10% base default rate scenarios.

Figure 17: Student loan 10% base default rate annualized CDR curves, % default
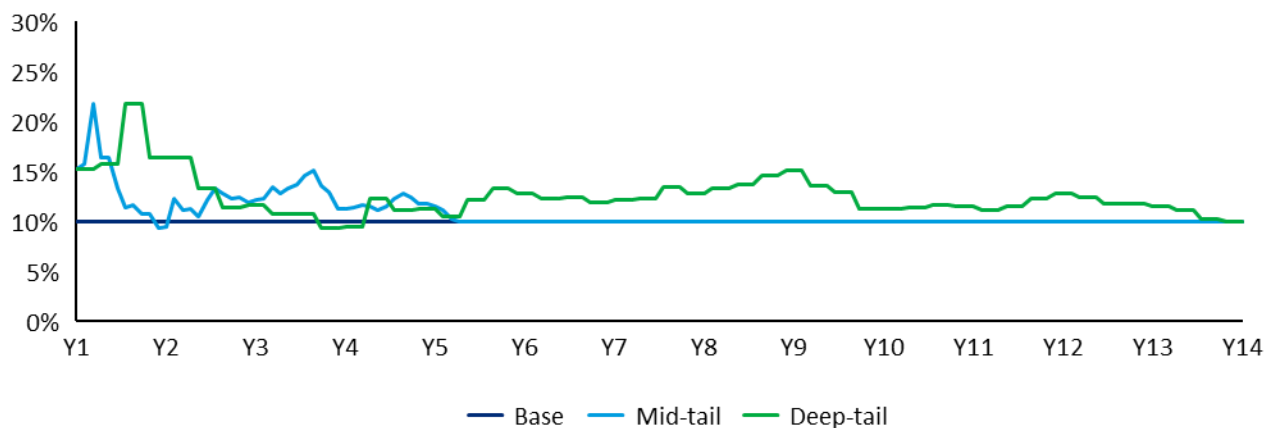
3.4.   Output Metrics

Our analysis seeks to examine the potential for losses on residual tranches in adverse scenarios. As identified as part of our guiding principles, we seek to measure losses in a manner consistent with the treatment of these assets on an insurer's statutory balance sheet.

This point itself has been in flux and is subject to different interpretations within the industry: historically, residual tranches had been held at the lower of cost of fair value[23]; more recently, this treatment has shifted to the lower of amortized cost or fair value[24]; in addition, current proposals recommend the lesser of book-adjusted carrying value or fair value. Under each of these methods, the reported value of an asset will reflect not only its fair value at the time, but the market conditions at its acquisition.

For the purposes of this analysis, we focus on the decline in fair value of an asset under the stress scenario. In an adverse stress scenario, the fair value is expected to decline below other metrics, which are less responsive to market conditions, and be the binding constraint ("lower of"). Considering only the decline in fair value, rather than attempting to fully align with the accounting treatment, is conservative as it may overstate the potential for losses under certain conditions:

- If fair value is lower than amortized cost prior to applying a stress, then considering the decline in fair value will accurately capture the loss on an insurer's balance sheet
- If fair value is greater than amortized cost prior to applying a stress, then considering the decline in fair value will overstate the potential loss on an insurer's balance sheet (by an amount equal to the starting difference between fair value and amortized cost).

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[23] SSAP No. 43R 2021-15
[24] SSAP No. 21R 12-1-23

We define 'fair value' as the net present value of the cash flows to the residual tranche at a 12% discount rate. This definition is consistent with the industry approach to valuing these types of assets (discounted cash flows) and represents a typical target return for equity-like assets. The robustness of our results relative to this parameter is evaluated in the sensitivity testing in Appendix A.3. A constant discount rate is applied in both the base and stress scenarios to isolate the impact of credit default risk from interest rate or liquidity risk.

The initial output of our modelling is a cash flow profile for each asset by scenario. **Figure 18** provides an illustrative example this output.

Figure 18: Illustrative deal level cash flow forecast, $M
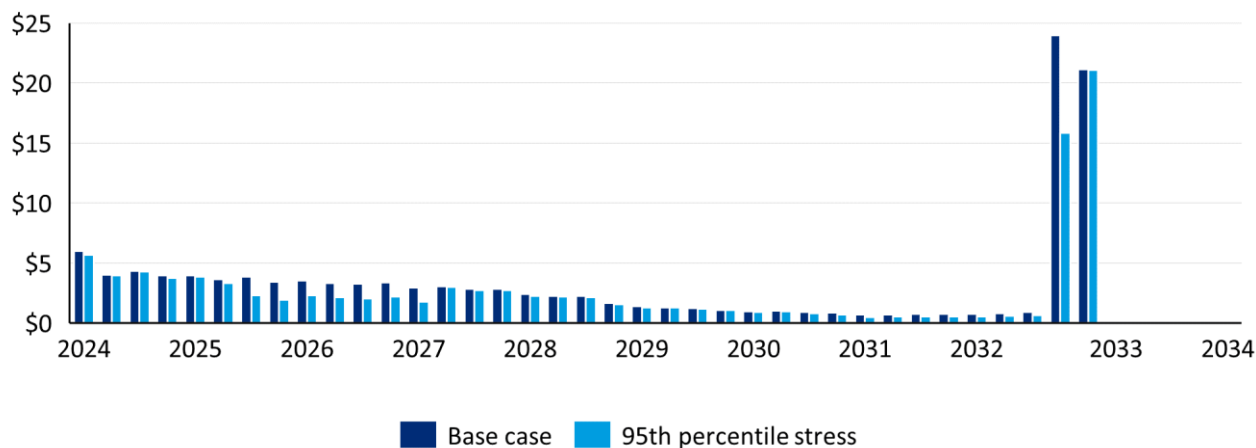
4. Results

4.1. Introduction

To understand the underlying risk in residual equity tranches, **Table 8** - **Table 15** illustrate the decline in NPV using a constant discount rate of 12% across all modeled assets across our scenarios. We consider two approaches to aggregate the losses across the modeled set of assets:

- **Simple average losses:** this metric provides the simple average of losses (measured as the decline in NPV at a constant discount rate relative to the base scenario) across all modeled assets. This metric places equal weight on all assets.

- **Portfolio average losses:** this metric considers the aggregate losses on the set of modeled assets on a NPV basis; effectively, it weighs assets based on their initial fair value and illustrates the losses that an insurer would have faced if it owned that portfolio of assets.

4.2. Summary

Table 7 provides the portfolio average losses in each of the stress scenarios:

Table 7: Portfolio average losses for all modeled assets across stress scenarios

Scenario Severity	Scenario	CLOs (BSL)	CLOs (MM)	Student loans	Subprime auto loans	Prime auto loans
95th percentile	Dot-Com	-45%	-27%	-	-	-
	GFC	-42%	-25%	-	-17%	-13%
	Mid-tail	-	-	-16%	-	-
	Long Mid-tail	-	-	-	-22%	-14%
99th percentile	Deep-tail	-72%	-55%	-20%	-74%	-26%

These results indicate:

- Residual tranches for MM CLOs consistently perform better than BSL ones across our scenarios.
- Residual tranches for prime auto loans ABS consistently perform better than those backed by subprime auto loans across our scenarios.

4.3. Results by asset class

The following sections provide additional information on the results for each type of residual tranche: CLOs, auto loans, and student loans.

4.3.1. CLOs

Table 8 provides the average losses for residual tranches of CLO in each of the stress scenarios:

Table 8: CLO summary statistics

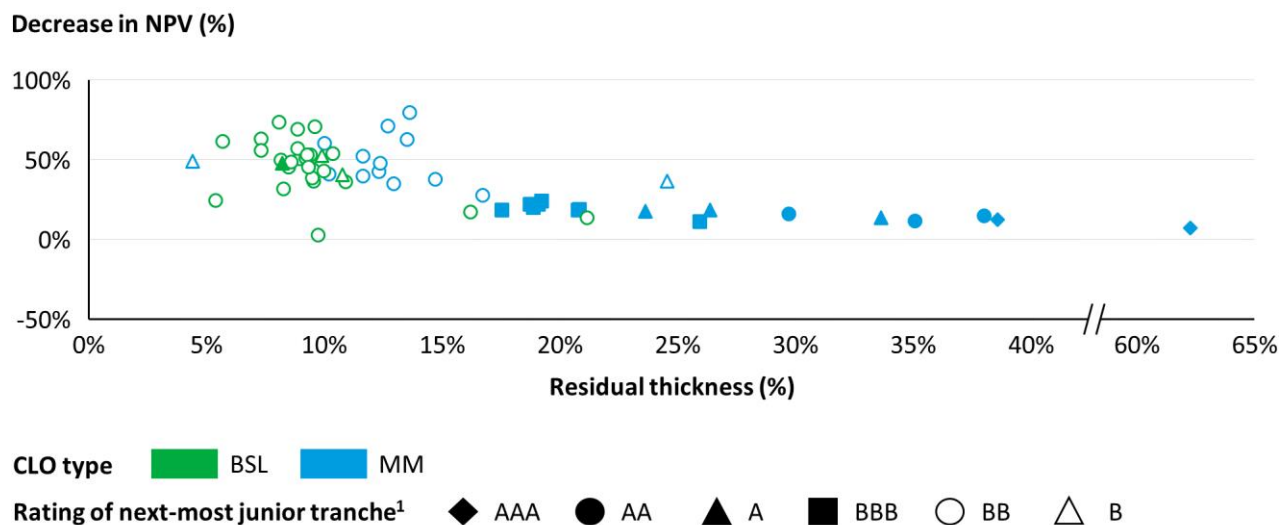| Scenario Severity	Scenario	CLO type	Simple average losses	Portfolio average losses
95th percentile	Dot-Com	BSL	-48%	-45%
		MM	-34%	-27%
	GFC[25]	BSL	-46%	-42%
		MM	-32%	-25%
99th percentile	Deep-tail	BSL	-74%	-72%
		MM	-64%	-55%

In addition, we considered the losses at the deal-level to understand the characteristics that affect the potential losses on residuals tranches. **Figure 19** illustrates losses by residual thickness in our GFC scenario. These results indicate:

- Residual tranches for MM CLOs consistently perform better than BSLs ones across our scenarios.
- CLO equity tranches with thicker residuals perform better than those with thinner residuals.
- Higher next-most junior rated CLO tranches are correlated with thicker residuals and perform better than lower rated tranches.

As shown below in **Figure 19**, residual thickness is a significant driver of stress scenario impact. CLO residual equity tranches with thicker residuals perform noticeably better than thinner residual tranches (average decrease in NPV of 49.1% when residual thickness is less than 15% vs. 18.3% when residual thickness is greater or equal to 15%). This result is consistent across our Dot-Com and Deep-tail stress scenarios as shown in **Figure 24** and **Figure 25** in the Appendix.

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[25] While credit experience was calibrated to GFC, the modeled losses differ from observed performance of CLO residual tranches during the GFC. These differences reflect several, offsetting factors, including changes to the structures of CLOs since the GFC (CLO 1.0 vs. 2.0 vs. 3.0) and the modeled assumption of no reinvestment (vs. market practices), and differences in the funding structure.

Figure 19: Losses by CLO residual thickness – Mid-tail (GFC) scenario, %

Decrease in NPV (%)

CLO type ▮ BSL ▮ MM

Rating of next-most junior tranche[1]   ◆ AAA   ● AA   ▲ A   ▮ BBB   ○ BB   △ B

To test the robustness of our assumptions, we conducted select sensitivity testing of key parameters and assumptions such as the discount rate, recovery lag, and the prepayment rate. Details of our sensitivity testing can be seen in the Appendix. In addition, we evaluated the effect of employing the same parameters and assumptions adopted by the NAIC in its ongoing efforts around CLOs, which can be seen in **Table 9** below. Use of the NAIC assumptions had minimal impact on the simple average losses and NPV within our GFC scenario (producing a simple average loss of -45.1% vs. -45.9% for BSL and -32.9% vs. -31.6% for MM). The NAIC assumptions were applied to both the base and stress scenarios and the minimal impact reflects an offset between that reinvestment and prepayment assumptions and the faster recovery period.

Table 9: NAIC CLO assumptions

Asset Class	Assumption	NAIC assumption
CLOs (MM and BSLs)	Prepayment rates	0.0%
	Recovery lag	6 months
	Reinvestment period	No post-reinvestment period reinvestment Reinvestment collateral is purchased at par

Although it differs from how these assets are held on the balance sheet, some stakeholders may look at a cash flow coverage metric. This metric compares the total, undiscounted cash flows in a scenario to the base scenario fair value and is shown for BSL CLOs and MM CLOs in **Table 10** – **Table 11**, respectively, below.

Table 10: BSL CLO total coverage of cash flows relative to initial fair value[26]

	Mid-tail (~95th percentile)			
	Base	Dot-Com	GFC	Deep-tail
Deal-level average	1.7x	0.8x	0.9x	0.3x
Portfolio average	1.7x	0.9x	1.0x	0.3x

Table 11: MM CLO total coverage of cash flows relative to initial fair value[26]

	Mid-tail (~95th percentile)			
	Base	Dot-Com	GFC	Deep-tail
Deal-level average	1.7x	1.1x	1.2x	0.5x
Portfolio average	1.6x	1.2x	1.2x	0.7x

4.3.2. Auto loans

Table 12 provides the average loss for residual tranches of auto loans in each of the stress scenarios:

Table 12: Auto loan summary statistics

Scenario Severity	Scenario	Auto loan type	Simple average losses	Portfolio average losses
95th percentile	GFC	Prime	-13%	-13%
		Subprime	-18%	-17%
	Long Mid-tail	Prime	-14%	-14%
		Subprime	-22%	-22%
99th percentile	Deep-tail	Prime	-27%	-26%
		Subprime	-67%	-74%

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[26] Calculated by dividing total cash flow for each scenario by the base scenario fair value (base scenario cash flows discounted using a 12% discount rate)

In addition, we considered the losses at the deal-level to understand the characteristics that affect the potential losses on residual tranches. **Figure 20** illustrates losses by residual thickness in our GFC scenario. These results indicate:

- Residual tranches for prime auto loans ABS consistently perform better than those backed by subprime across our scenarios.
- Residual thickness is not as significant of a driver of stress scenario impact for auto loans as it is for CLOs.
- Higher next-most junior rated auto loan tranches perform on par with lower rated tranches.

As shown below in **Figure 20**, auto loan equity tranches with thicker residuals perform on par with those with thinner residuals in our GFC stress scenario. This result is consistent in our long Mid-tail stress scenario as shown in **Figure 26** in the Appendix. However, in our Deep-tail stress scenario, subprime auto loans with thicker residuals perform worse while prime auto loans with thicker residuals perform better as shown in **Figure 27** in the Appendix.

Figure 20: Losses by auto loan residual thickness – Mid-tail (GFC) scenario, %[27]
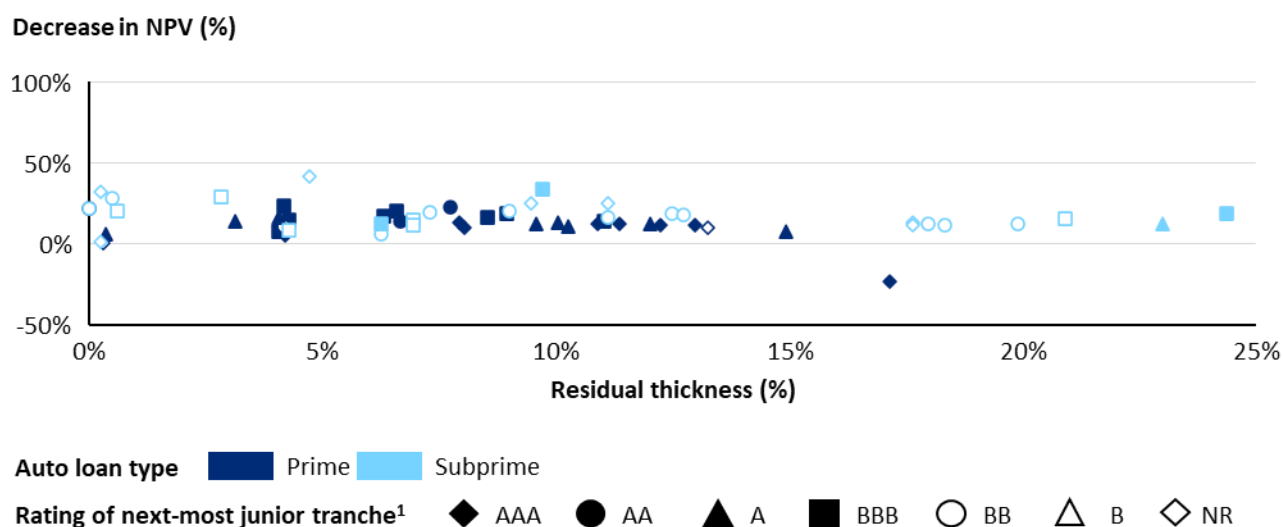
Although it differs from how these assets are held on the balance sheet, some stakeholders may look at a cash flow coverage metric. This metric compares the total, undiscounted cash flows in a scenario to the base scenario fair value[28] and is shown for prime and subprime auto loan in **Table 13** – **Table 14**, respectively.

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[27] As shown in Figure 20, one deal experienced better performance during stress scenarios due to unique structural considerations. This deal was removed from the aggregate metrics due to outsized impacts to the portfolio and simple averages. Inclusion of this deal in portfolio aggregation would reduce losses to 6% (from 13%) under the GFC scenario and to 22% (from 26%) under the Deep-tail scenario.

[28] Calculated by dividing total cash flow for each scenario by the base scenario fair value (base scenario cash flows discounted using a 12% discount rate)

Table 13: Prime auto loan total coverage of cash flows relative to initial fair value

	Mid-tail (~95th percentile)			
	Base	Long Mid-tail	GFC	Deep-tail
Deal-level average	1.3x	1.1x	1.1x	0.9x
Portfolio average	1.3x	1.1x	1.1x	1.0x

Table 14: Subprime auto loan total coverage of cash flows relative to initial fair value

	Mid-tail (~95th percentile)			
	Base	Long Mid-tail	GFC	Deep-tail
Deal-level average	1.2x	0.9x	1.0x	0.3x
Portfolio average	1.2x	1.0x	1.0x	0.3x

To test the robustness of our assumptions, we conducted sensitivity testing of key parameters and assumptions such as the discount rate, recovery lag, base default rate, and interest rate levels. Details of our sensitivity testing can be seen in the Appendix. The results of these tests are that sensitivities had minimal impact on the simple average losses and NPV within our GFC scenario.

4.3.3. Student loans

Table 15 provides the average losses for residual tranches of student loans in each of the stress scenarios under the 10% base default rate assumption. Corresponding results for the 8% and 12% base default rate assumptions are located in the appendix.

Table 15: Student loan summary statistics

Scenario Severity	Scenario	Simple average losses	Portfolio average losses
95th percentile	Mid-tail	-31%	-16%
99th percentile	Deep-tail	-35%	-20%

In addition, we considered the losses at the deal-level to understand the characteristics that affect the potential losses on residual tranches. Figure 21 illustrates losses by residual thickness in our Mid-tail scenario. These results indicate:

- Student loan equity tranches with thinner residuals perform better than those with thicker residuals as they rely less on the principal and instead have a more consistent set of interest-based cashflows in all scenarios.

- Next-most junior rating of student loan tranches is not correlated with tranche performance.

As shown below in **Figure 21**, student loan equity tranches with thinner residuals perform better than those with thicker residuals in our Mid-tail stress scenario. This result is consistent in our Deep-tail scenario as shown in **Figure 28** in the Appendix.

Although it differs from how these assets are held on the balance sheet, some stakeholders may look at a cash flow coverage metric. This metric compares the total, undiscounted cash flows in a scenario to the base scenario fair value[29] and is shown in **Table 16**.

Table 16: Student loan total coverage of cash flows relative to initial fair value

	Base	Mid-tail	Deep-tail
Deal-level average	1.6x	1.0x	1.0x
Portfolio average	1.6x	1.2x	1.2x

Figure 21: Losses by student loan residual thickness – Mid-tail scenario, %
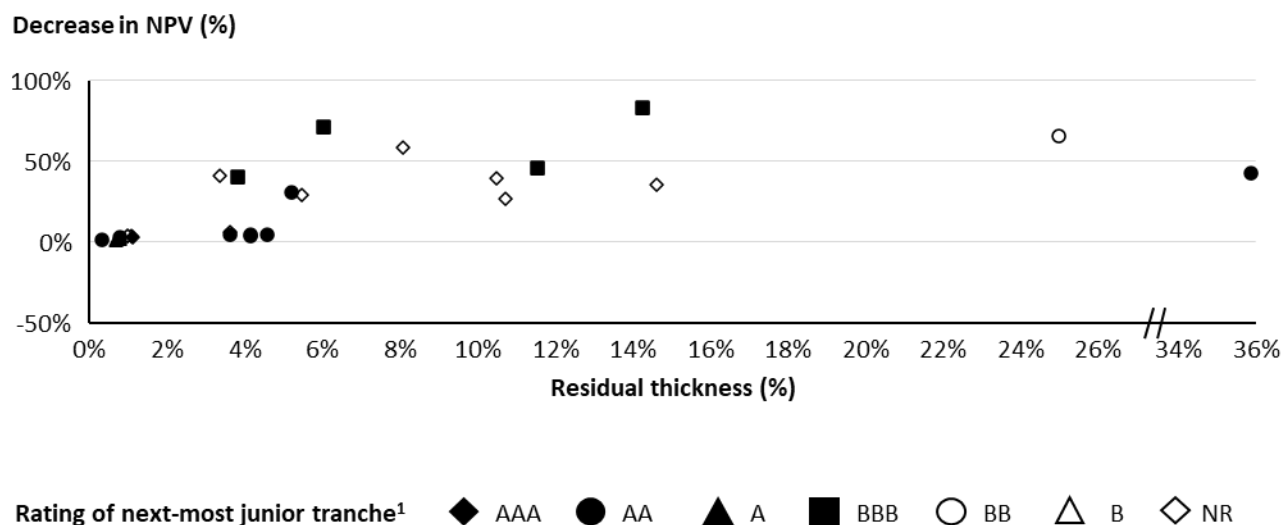
To test the robustness of our assumptions, we chose to conduct select sensitivity testing of key parameters and assumptions such as the discount rate, recovery lag, severity, deferment rate, CRR, and forbearance. Details of our sensitivity testing can be seen in the Appendix. The results of these tests are that sensitivities had minimal impact on the simple average losses within our Mid-tail scenario.

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[29] Calculated by dividing total cash flow for each scenario by the base scenario fair value (base scenario cash flows discounted using a 12% discount rate)

5.   Conclusion

Our analysis sought to evaluate the potential for losses in the residual tranches of commonly-held types of structured assets and assess how this compares with the historical losses for other asset classes. We constructed our analysis to standardize (to the extent possible) the level of stress applied to each asset class such that an apples-to-apples, risk-based comparison could be made. We focused on two standardized points in the distribution: (i) the 95th percentile loss, as historically the NAIC has calibrated capital charges roughly to this severity and (ii) a Deep-tail event, to understand the potential for further losses in an extreme scenario.

We gauged the impact of the stress applied by measuring the decline in the Net Present Value (NPV) of the selected deals and compared them to the losses in the market value of common stock (S&P 500), due to credit impairment losses for corporate bonds (Bloomberg Aggregate Corporate Bond Index credit losses, BB rated bonds), and in the valuation of Real Estate (NCREIF index) during corresponding periods of stress.

Figure 22 below compares losses by asset class under each stress scenario. On a portfolio basis, the losses for the modeled residual tranches of structured products are lower than equities (S&P 500) under the corresponding scenarios, but higher than CRE and low-rated corporate bonds. Notably, structured ABS residuals performed better across all scenarios, when measured on a portfolio basis, than did common stock.

Figure 22: Capital charges compared to modeled scenario losses for selected asset classes[30]

Loss in value/Impairment

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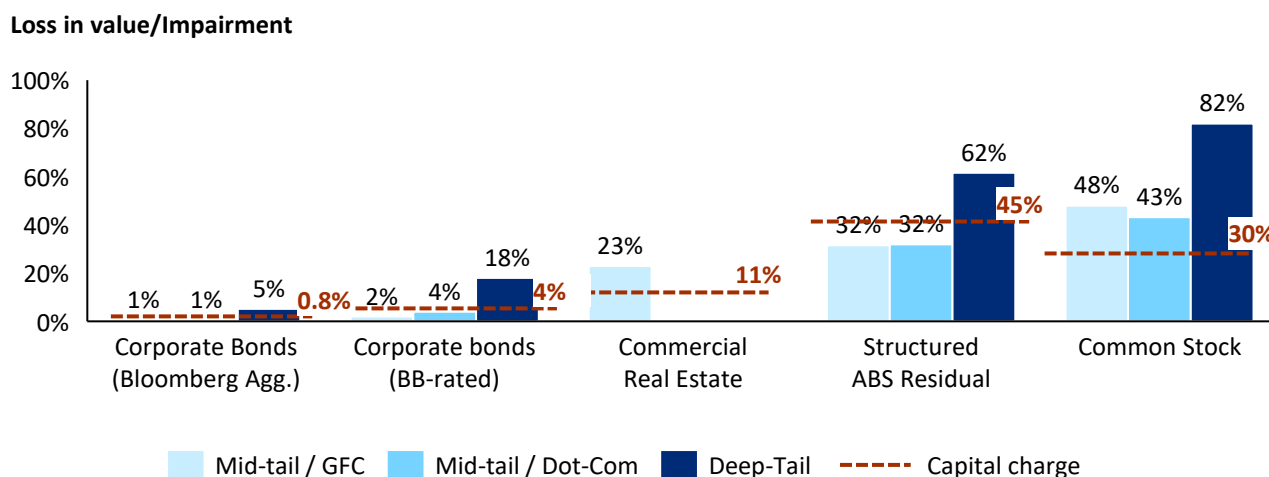
[30] For common stock, losses are measured as the largest 2-year decline in market value for the S&P 500 during Dot-Com bubble (2000-2002) and GFC (2007-2009). For commercial real estate, losses are measured as the largest 2-year decline valuations, as measured by the NCREIF Index. For both asset classes, a 2-year window was selected to align with the calibration window for the existing NAIC capital charges. For corporate bonds, losses net of recoveries based on historical default and recovery rate data from Moody's, are shown for the full length the credit cycle including during Great Depression (1931-1940), Dot Com (1998-2003), and GFC (2008-2010). For structured ABS residuals, losses reflect the full credit cycle and the modeling approach outlined in this document; losses for modeled asset types were weighted based on the total outstanding volumes for those asset types (as-of 2021, SIFMA) and the relative volumes in the modeled sub-sectors. For student loan ABS, where only a single mid-tail scenario was evaluated, this scenario was used for aggregation purposes in both the GFC and Dot-Com scenarios. For auto loan ABS, the "long mid-tail" scenario was used for aggregation purposes in the Dot-Com scenario; this scenario was intended to capture a similar macroeconomic stress event to the Dot-Com scenario.

In addition, we consider the individual sectors and sub-sectors that were in-scope for this analysis. While significant variation is observed across sectors, reflecting differences in both the underlying collateral and the mechanics of the structures, the losses for the worse performing sector (broadly syndicated CLOs) are comparable to public equities.

Figure 23: ABS residual losses by asset class (%, decrease in NPV)[31]

Decrease in NPV (%)

Legend: Mid-Tail / GFC — Mid-Tail / Dot-Com — Deep-Tail

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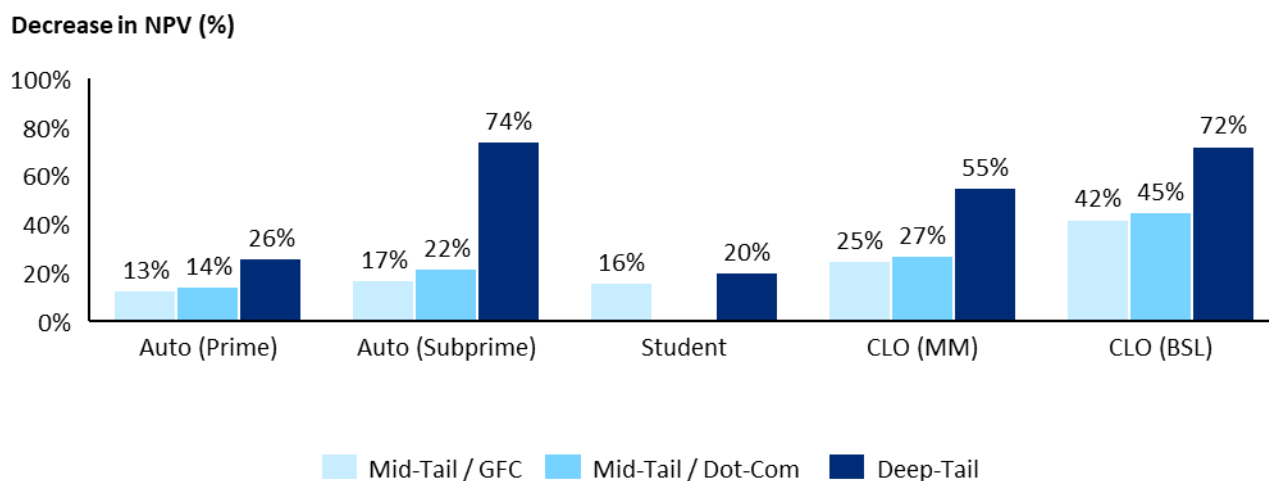
[31] For student loans, only a single mid-tail scenario was evaluated.

Appendix A.

A.1.   Results

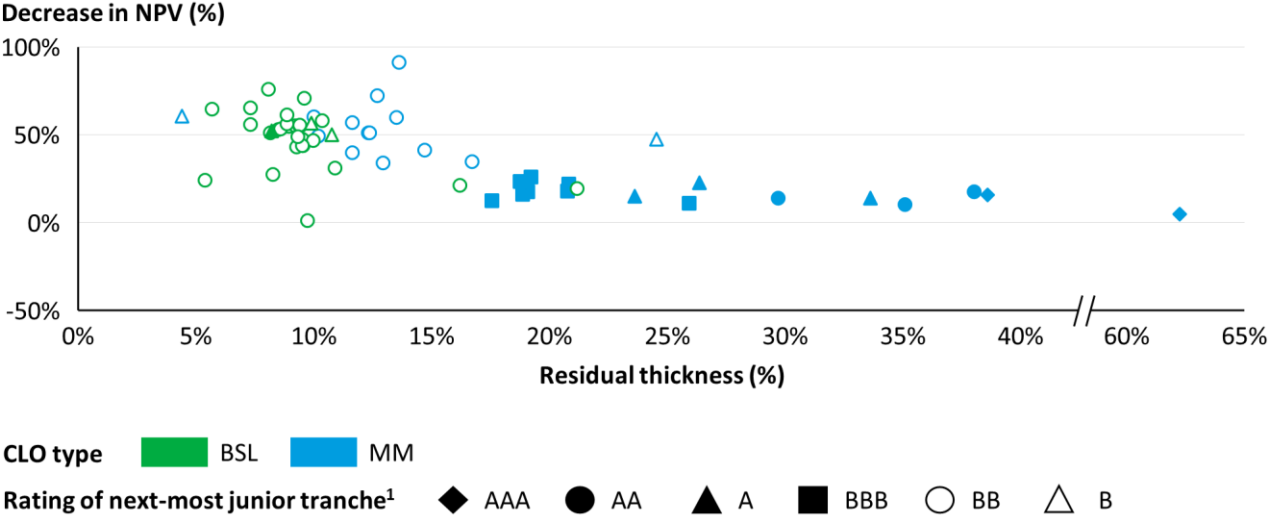**Figure 24: Losses by CLO residual thickness – Mid-tail (Dot-Com) scenario, %**

Figure 25: Losses by CLO residual thickness – Deep-tail scenario, %
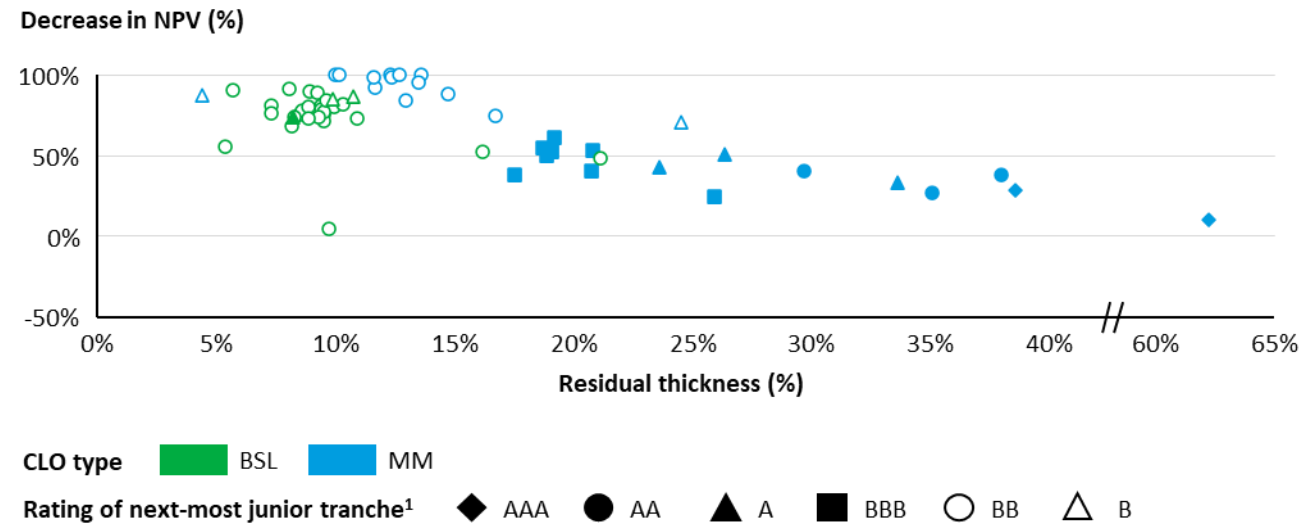
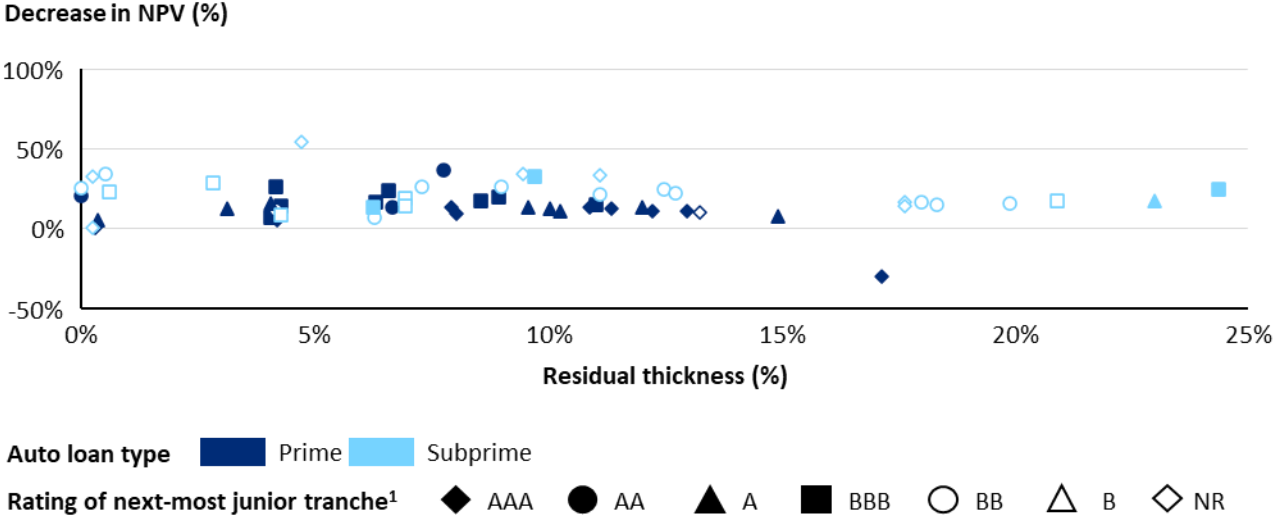**Figure 26: Losses by auto loan residual thickness – Mid-tail (Long Mid-tail) scenario, %**

Decrease in NPV (%)

Figure 27: Losses by auto loan residual thickness – Deep-tail scenario, %

Decrease in NPV (%)
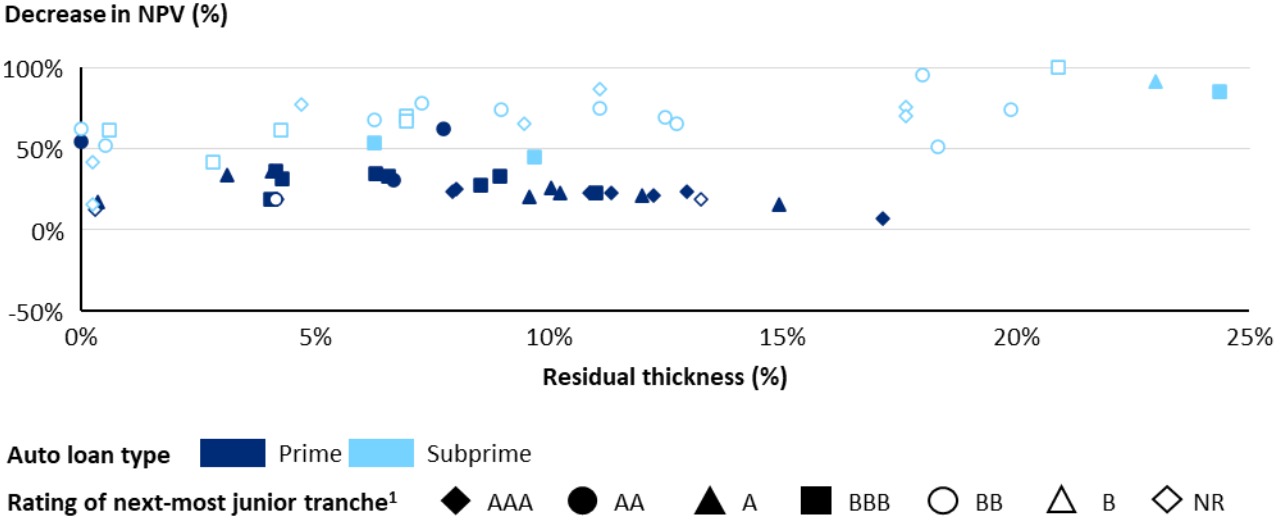
Figure 28: Losses by student loan residual thickness – Deep-tail scenario, %

Rating of next-most junior tranche[1]　◆ AAA　● AA　▲ A　■ BBB　○ BB　△ B　◇ NR
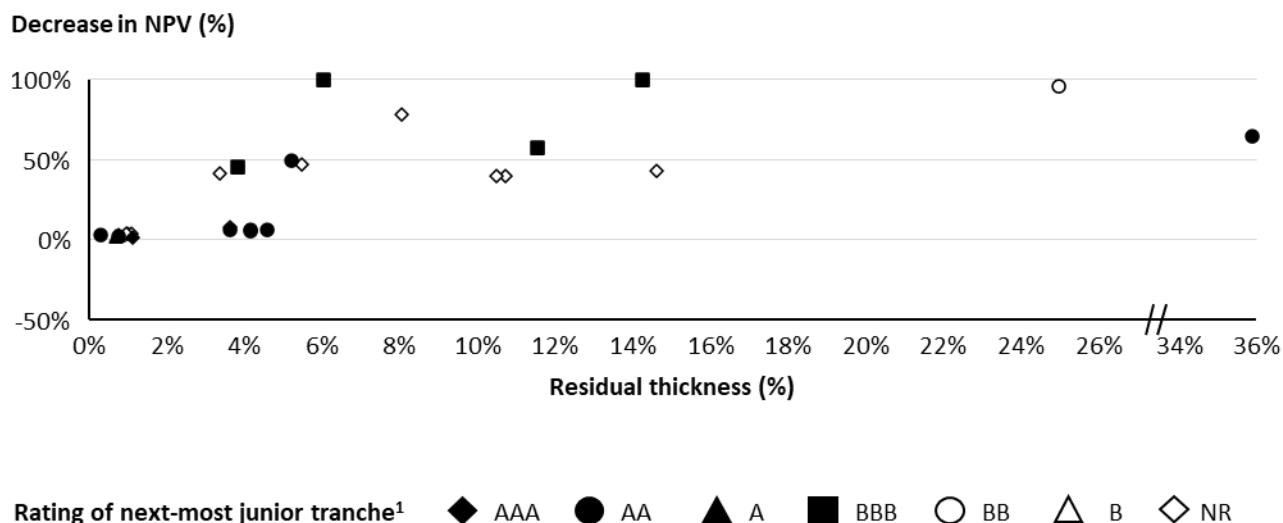
A.2.　Data Sources

Asset class	Sample (if known) / representative	Fields used	Time span	Provider(s)	Rationale for selection
CLOs	US LSTA 100 index leveraged loans	Default rate	1999 - 2022	S&P	Index well-used by industry, provides adequate sample of US leveraged loan market
	US first lien loans	Recovery rate	2001 – 2023	Moody's LCD Bank of America Global Research	Most comprehensive data available, compiled by BofA Global Research based on data from Moody's and LCD
Auto loans	US auto loans	Prime recovery rate Subprime recovery rate Prime ANL rate Subprime ANL rate	2004 – 2023	Fitch Ratings	Most comprehensive data available from reputable source

Asset class	Sample (if known) / representative	Fields used	Time span	Provider(s)	Rationale for selection
Student loans	US private student loans	Default rate	2008 – 2023	Intex	Most comprehensive data available FRBNY Household Debt and Credit report omitted due to use of delinquency rate over default rate NCES public student loan cohort default rates taken into consideration, but not used to calibrate scenarios Fitch Ratings private student loan default index taken into consideration, but not used to calibrate scenarios
Common stock	S&P 500 index	Share price Annual return	1928 – 2023	S&P	Used by NAIC for equity RBC framework for equities Russell 3000 omitted due to similarities of parameters to S&P 500 and shorter time span
Corporate bonds	Corporate bonds (aggregated all)	Default rate	1920-2021	Moody's	Most comprehensive data available from reputable source, well-used by industry
		Recovery rate	1982-2021	Moody's	
	Bloomberg US Corporate Bond Agg Total Return	Corporate bond price	1973-2023	Bloomberg	
Commercial Real Estate	NCREIF Property Index	Total Index Value	1978-2022	NCREIF	Used by NAIC for calibration of RBC framework for CRE FRED US Commercial Real Estate price index omitted due to greater sensitivity to market price rather than valuation, as well as due to the NAIC's use of NCREIF data for their RBC framework

A.3. Sensitivity Analysis

Details of CLO sensitivity testing in our GFC scenario can be found below:

- **Discount rate:**
  - For BSLs, a discount rate of 12% resulted in a simple average loss relative to the base scenario of -45.9% compared to -45.7% and -46.1% for discount rates of 9% and 15%, respectively.
  - For MMs, a discount rate of 12% resulted in a simple average loss relative to the base scenario of -31.6% compared to -31.1% and -32.1% for discount rates of 9% and 15%, respectively.
- **Recovery lag:**
  - For BSLs, a 6-month recovery lag resulted in a NPV 5.4% higher on average than our base 12-month assumption while a 12-month recovery lag resulted in a NPV 0.7% higher on average.
  - For MMs, a 6-month recovery lag resulted in a NPV 0.3% higher on average than our base 12-month assumption while a 12-month recovery lag resulted in a NPV 0.8% lower on average.
- **Prepayment rate:**
  - For BSLs, a consistent prepayment rate across base and GFC scenario resulted in a NPV 6.2% lower on average than when we apply scenario-specific prepayment assumptions.
  - For MMs, a consistent prepayment rate across base and GFC scenario resulted in a NPV 3.4% lower on average than when we apply scenario-specific prepayment assumptions.

Details of auto loan sensitivity testing in our GFC scenario can be found below:

- **Discount rate:**
  - For prime auto loans, a discount rate of 12% resulted in a simple average loss relative to the base scenario of -13.0% compared to -12.9% and -13.0% for discount rates of 9% and 15%, respectively.
  - For subprime auto loans, a discount rate of 12% resulted in a simple average loss relative to the base scenario of -18.2% compared to -18.5% and -17.9% for discount rates of 9% and 15%, respectively.
- **Recovery lag:**
  - For prime auto loans, a 3-month recovery lag resulted in a NPV 1.7% lower on average than our base 6-month assumption while a 9-month recovery lag resulted in a NPV 1.5% higher on average.
  - For subprime auto loans, a 3-month recovery lag resulted in a NPV 3.3% lower on average than our base 6-month assumption while a 9-month recovery lag resulted in a NPV 5.5% higher on average.
- **Base default rate:**
  - For prime auto loans, a 0.5% increase in our base default rate resulted in a NPV 0.0% lower on average while a 0.5% decrease in our base default rate resulted in a NPV 0.0% higher on average.
  - For subprime auto loans, a 1.0% increase in our base default rate resulted in a NPV 1.9% lower on average while a 1.0% decrease in our base default rate resulted in a NPV 2.0% higher on average.
- **Rate shock:**
  - For prime auto loans, applying a 50bps rate shock to forward curves resulted in a NPV 0.2% lower on average.

– For subprime auto loans, applying a 50bps rate shock to forward curves resulted in a NPV 1.6% lower on average.

Details of student loan sensitivity testing in our Mid-tail scenario can be found below:

- **Discount rate:**
  – A discount rate of 12% resulted in a simple average loss relative to the base scenario of -31.4% compared to -31.4% and -31.5% for discount rates of 9% and 15%, respectively.

- **Recovery lag:**
  – An 18-month recovery lag resulted in a simple average loss relative to the base scenario of -25.0% compared to a simple average loss of -31.4% with our base 12-month assumption.

- **Severity:**
  – 85% severity resulted in a simple average loss relative to the base scenario of -28.5% compared to a simple average loss of -31.4% with our base 77% severity assumption.

- **Deferment rate:**
  – A 10% deferment rate resulted in a simple average loss relative to the base scenario of -29.9% compared to a simple average loss of -31.4 % with our base 8% assumption while a 12% deferment rate resulted in a simple average loss of -30.1%.

- **CRR:**
  – 15% CRR resulted in a simple average loss relative to the base scenario of -28.5% compared to a simple average loss of -31.4% with our base CRR assumptions while 25% CRR resulted in a simple average loss of -27.5%.

- **Forbearance:**
  – 10% forbearance resulted in a simple average loss relative to the base scenario of -28.6% compared to a simple average loss of -31.4% with our base forbearance assumptions while 15% forbearance resulted in a simple average loss of -25.7%.

- **Default rate:**
  – An 8% default rate resulted in a simple average loss relative to the base scenario of -25.2% compared to a simple average loss of -31.4% with our base default rate assumptions while a 12% default rate resulted in a simple average loss of -31.4%.

A.4. Deals Modeled

Table 17: Listing of MM CLO deals in random modeling sample

Deal	Vintage
Audax Senior Debt CLO 6	2021
Owl Rock CLO VII	2022
Guggenheim MM CLO 2021-4	2021
Lake Shore MM CLO V	2022
Maranon Loan Funding 2023-1	2023
Owl Rock CLO VI	2021
Woodmont 2023-12 Trust	2023
Owl Rock CLO X	2023
BCC Middle Market CLO 2023-2	2023
Fortress Credit Opportunities XXI CLO	2023
BlackRock DLF IX 2021-2 CLO	2021
MFIC Bethesda CLO 1	2023
Twin Brook CLO 2023-1	2023
Deerpath Capital CLO 2022-1	2022
Barings Middle Market CLO 2023-I	2023
Blackrock Mt Adams CLO IX	2021
Guggenheim MM CLO 2021-3	2021
Barings Private Credit Corporation CLO 2023-1	2023
Golub Capital Partners ABS Funding 2023-1	2023
ABPCI Direct Lending Fund CLO XIV	2023
Blackrock Rainier CLO VI	2021
Owl Rock CLO VIII	2022
ABPCI Direct Lending Fund CLO XVI	2023
Churchill MMSLF CLO-I	2021
Lake Shore MM CLO IV	2021
Golub Capital Partners CLO 56(M)	2021
BlackRock DLF X 2022-1 CLO	2022
Golub Capital Partners CLO 57(M)	2021
Antares CLO 2021-1	2021

Table 18: Comparison of characteristics random sample to full pool of deals: MM CLO

Statistic	Random sample	Full sample
Average deal balance	$534M	$489M
10th – 90th percentile	$350M - 902M	$304M - $735M
Average residual thickness	20%	24%
10th – 90th percentile	10%-35%	12%-35%
2021 vintage	40%	33%
2022 vintage	20%	24%
2023 vintage	40%	43%

Table 19: Listing of BSL CLO deals in random modeling sample

Deal	Vintage
Venture 48 CLO	2023
Rockford Tower CLO 2021-1	2021
Palmer Square CLO 2023-3	2023
MidOcean Credit CLO XI	2022
Octagon Investment Partners 54	2021
Wellfleet CLO 2021-1	2021
Bain Capital Credit CLO 2023-1	2023
Sculptor CLO XXV	2021
Wellington Management CLO 1	2023
Fortress Credit BSL XX	2023
Rockford Tower Credit Funding I	2022
Milford Park CLO	2022
Dryden 90 CLO	2021
Carlyle U.S. CLO 2023-2	2023
KKR Static CLO I	2022
Sound Point CLO XXX	2021
Octagon 70 Alto	2023
Madison Park Funding LII	2021
OHA Credit Funding 12	2022
RRX 6	2021
AIMCO CLO 12	2021
Mountain View CLO XVI	2022
AGL CLO 10	2021
Ares LXVIII CLO	2023

Deal	Vintage
Carlyle U.S. CLO 2021-9	2021
Sculptor CLO XXVIII	2021
BCRED BSL CLO 2021-2	2021
Octagon 61	2023
Atlantic Avenue 2023-1	2023
Octagon Investment Partners 49	2021

Table 20:Comparison of characteristics random sample to full pool of deals: BSL CLO

Statistic	Random sample	Full sample
Average deal balance	$443M	$460M
$10^{th} - 90^{th}$ percentile	$366M – $515M	$383M – $576M
Average residual thickness	10%	9%
$10^{th} - 90^{th}$ percentile	7% - 11%	7% - 10%
2021 vintage	47%	44%
2022 vintage	20%	30%
2023 vintage	33%	26%

Table 21: Listing of Prime Auto ABS deals in random modeling sample

Deal	Vintage
Toyota Auto Receivables 2022-D Owner Trust	2022
Toyota Auto Receivables 2022-B Owner Trust	2022
Capital One Prime Auto Receivables Trust 2022-1	2022
World Omni Auto Receivables Trust 2022-B	2022
OCCU Auto Receivables Trust 2022-1	2022
SCCU Auto Receivables Trust 2023-1 (Space Coast Credit Union)	2023
Toyota Auto Receivables 2021-B Owner Trust	2021
SFS Auto Receivables Securitization Trust 2023-1	2023
Porsche Financial Auto Securitization Trust 2023-1	2023
World Omni Auto Receivables Trust 2022-D	2022
Lendbuzz Securitization Trust 2023-2	2023
OCCU Auto Receivables Trust 2023-1	2023
World Omni Auto Receivables Trust 2022-A	2022
World Omni Auto Receivables Trust 2021-D	2021
World Omni Auto Receivables Trust 2023-D	2023

Deal	Vintage
BVABS 2023-CAR2 aka BOF URSA VII Funding Trust I	2023
CarMax Auto Owner Trust 2021-1	2021
Hyundai Auto Receivables Trust 2022-C	2022
Ent Auto Receivables Trust 2023-1	2023
Toyota Auto Loan Extended Note Trust 2023-1	2023
Capital One Prime Auto Receivables Trust 2023-2	2023
Toyota Auto Receivables 2023-B Owner Trust	2023
Toyota Auto Receivables 2023-C Owner Trust	2023
Ally Auto Receivables Trust 2022-2	2022
Chase Auto Owner Trust 2022-A	2022
GM Financial Revolving Receivables Trust 2023-2	2023
Capital One Prime Auto Receivables Trust 2021-1	2021
Toyota Auto Receivables 2023-D Owner Trust	2023
Westlake Automobile Receivables Trust, Series 2023-P1	2023
GM Financial Consumer Automobile Receivables Trust 2022-4	2022

Table 22: Comparison of characteristics random sample to full pool of deals: Prime auto loan

Statistic	Random sample	Full sample
Average deal balance	$1.1B	$1.3B
$10^{th} - 90^{th}$ percentile	$256M – $1.6B	$419M – $1.9B
Average residual thickness	8%	6%
$10^{th} - 90^{th}$ percentile	3%-13%	0%-13%
2021 vintage	13%	26%
2022 vintage	37%	28%
2023 vintage	50%	46%

Table 23: Listing of Subprime Auto ABS deals in random modeling sample

Deal	Vintage
Santander Drive Auto Receivables Trust 2023-4	2023
United Auto Credit Securitization Trust 2023-1	2023
Flagship Credit Auto Trust 2021-3	2021
Research-Driven Pagaya Motor Asset Trust VI	2022
CPS Auto Receivables Trust 2023-B	2023
American Credit Acceptance Receivables Trust 2022-4	2022

Deal	Vintage
Research-Driven Pagaya Motor Asset Trust VII	2022
United Auto Credit Securitization Trust 2021-1	2021
First Investors Auto Owner Trust 2021-1	2021
AmeriCredit Automobile Receivables Trust 2021-1	2021
Tricolor Auto Securitization Trust 2022-1	2022
Lobel Automobile Receivables Trust 2023-2	2023
Westlake Automobile Receivables Trust 2023-3	2023
LAD Auto Receivables Trust 2023-2	2023
Foursight Capital Automobile Receivables Trust 2022-1	2022
Foursight Capital Automobile Receivables Trust 2021-2	2021
CPS Auto Receivables Trust 2021-A	2021
American Credit Acceptance Receivables Trust 2021-3	2021
Lendbuzz Securitization Trust 2023-1	2023
Strike Acceptance Auto Funding Trust 2023-2	2023
Flagship Credit Auto Trust 2022-4	2022
Westlake Automobile Receivables Trust 2023-2	2023
American Credit Acceptance Receivables Trust 2022-2	2022
Research-Driven Pagaya Motor Asset Trust IV	2021
GLS Auto Receivables Issuer Trust 2023-1	2023
Westlake Automobile Receivables Trust 2022-2	2022
Research-Driven Pagaya Motor Asset Trust III	2021
Arivo Acceptance Auto Loan Receivables Trust 2021-1	2021

Table 24: Comparison of characteristics random sample to full pool of deals: Subprime auto loan

Statistic	Random sample	Full sample
Average deal balance	$506M	$607M
10th – 90th percentile	$44M – $836M	$183M – $1.5B
Average residual thickness	10%	11%
10th – 90th percentile	1%-20%	1%-25%
2021 vintage	36%	33%
2022 vintage	29%	30%
2023 vintage	36%	36%

Table 25: Listing of Student Loan ABS deals in random modeling sample

Deal	Vintage
Nelnet Student Loan Trust 2023-A	2023
SMB Private Education Loan Trust 2021-A	2021
College Ave Student Loans 2021-A	2021
Nelnet Student Loan Trust 2023-PL1	2023
Commonbond Student Loan Trust 2021-A-GS	2021
College Ave Student Loans Trust 2021-5	2021
Navient Private Education Refi Loan Trust 2021-E	2021
College Ave Student Loans 2023-A	2023
Navient Private Education Refi Loan Trust 2022-B	2022
Commonbond Student Loan Trust 2021-B-GS	2021
College Ave Student Loans 2021-C	2021
Navient Private Education Refi Loan Trust 2021-F	2021
College Ave Student Loans 2021-B	2021
Nelnet Student Loan Trust 2021-A	2021
ELFI Graduate Loan Program 2021-A	2021
Navient Private Education Refi Loan Trust 2021-B	2021
College Ave Student Loans Trust 2021-3	2021
Nelnet Student Loan Trust 2021-C	2021
Navient Private Education Refi Loan Trust 2021-A	2021
Navient Private Education Loan Trust 2023-B	2023
College Ave Student Loans 2023-B	2023
Prodigy Finance CM2021-1	2021
Nelnet Student Loan Trust 2021-D	2021
Navient Private Education Refi Loan Trust 2021-G	2021
College Avenue Student Loans 2022-CLUB	2022
EDvestinU Private Education Loan Issue No. 4 Series 2022-A	2022
SMB Private Education Loan Trust 2023-A	2023
College Ave Student Loans Trust 2021-4	2021
SMB Private Education Loan Trust 2021-E	2021
Navient Private Education Refi Loan Trust 2022-A	2022

Table 26: Comparison of characteristics random sample to full pool of deals: Student loan

Statistic	Random sample	Full sample
Average deal balance	$506M	$484M
$10^{th} – 90^{th}$ percentile	$81M – $1.0B	$82M – $999M
Average residual thickness	9%	-
$10^{th} – 90^{th}$ percentile	1%-18%	-
2021 vintage	67%	71%
2022 vintage	13%	13%
2023 vintage	20%	16%

Table 27: Excluded deals[32]

Class	Name
MM CLO	Churchill MMSLF CLO-II
Prime auto loan ABS	Bank of America Auto Trust 2023-2
	Carvana Auto Receivables Trust 2023-P1
	Carvana Auto Receivables Trust 2023-P4
	Westlake Automobile Receivables Trust, Series 2023-P1
	Carvana Auto Receivables Trust 2023-P2
	Honda Auto Receivables 2022-1 Owner Trust
	Honda Auto Receivables 2023-4 Owner Trust
Subprime auto loan ABS	Carvana Auto Receivables Trust 2021-N4
	Juniper Receivables 2022-1
	Credit Acceptance Auto Loan Trust 2023-3
	Credit Acceptance Auto Loan Trust 2023-5
	Flagship Credit Auto Grantor Trust 2023-R
	Carvana Auto Receivables Trust 2022-N1
Student loan ABS	SMB Private Education Loan Trust 2022-A
	Brazos Education Loan Authority Series 2021-1
	SMB Private Education Loan Trust 2022-B
	Kentucky Higher Education Student Loan Corporation, Series 2021-1
	Navient Student Loan Trust 2021-3
	Higher Education Loan Authority of the State of Missouri Series 2021-2
	Higher Education Loan Authority of the State of Missouri Series 2021-3
	SoFi Professional Loan Program 2021-A

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[32] No BLS CLO deals were excluded

New Mexico Educational Assistance Foundation, Series 2021-1

Towd Point Asset Trust 2021-SL1

Qualifications, assumptions, and limiting conditions

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American Property Casualty Insurance Association

INSURING AMERICA   apci.org

April 8, 2024

Mr. Tom Botsko
Chair, NAIC Capital Adequacy (E) Task Force
Via email: Eva Yeung (eyeung@naic.org)

Mr. Philip Barlow
Chair, Risk-Based Capital Investment Risk and Evaluation (E) Working Group (RBC IRE WG)
Via email: Dave Fleming (dfleming@naic.org)

Re: Proposal 2024-02-CA (Residual Structure PC & Health)
         Oliver Wyman Residual Tranche Report

Dear Mr. Botsko and Mr. Barlow,

The American Property Casualty Insurance Association[1] (APCIA) appreciates the opportunity to express our views on the Oliver Wyman study of the performance of residuals relative to other asset classes, exposed by the RBC IRE WG. We are also responding to the Capital Adequacy (E) Task Force's (CATF) proposal to impose a 45 percent interim risk-based capital (RBC) charge on residual tranche of asset-backed securities (residuals) held by property casualty insurers. We do not believe a sufficient basis has been demonstrated for this increase and agree with the American Council of Life Insurers (ACLI) that the NAIC should delay the implementation of an increased RBC charge on residuals by an additional year for all insurance lines.

Last year, the NAIC appropriately delayed imposition of a 45 percent charge on residuals on life insurers and sought industry data to conduct additional study. While we believe that any significant change in RBC charges, whether "interim" or not, should be underpinned by careful analysis conducted by the NAIC, regulators now have access to a thoughtful and credible study prepared by Oliver Wyman. In our opinion, the study does not justify a 45 percent charge on residuals. It does support the need for additional analysis in establishing an interim capital charge that is reflective of risk.

Moving forward with the 45 percent charge would be inappropriate in light of the new data. Oliver Wyman is a highly credible firm that the NAIC has appropriately relied on over the years to analyze important aspects of solvency regulation. The study constitutes compelling evidence that regulators should take additional time and analysis before making major changes to RBC. The NAIC has required substantially more rigor in the analysis underpinning every prior increase in RBC. We are concerned that failure to do so here would be inappropriate, especially insofar as applying this interim charge to property casualty and health insurers was only proposed at the March 2024 NAIC meeting.

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[1] APCIA is the primary national trade association for home, auto, and business insurers. APCIA promotes and protects the viability of private competition for the benefit of consumers and insurers, with a legacy dating back 150 years. APCIA members represent all sizes, structures, and regions—protecting families, communities, and businesses in the U.S. and across the globe.

We are also concerned that this charge appears to be designed to align with the "Basel III Endgame" banking capital rules proposed by the Federal Reserve Board. For many years, the insurance industry and insurance regulators have rightly pointed out that banking capital rules cannot and should not be applied to insurance companies. The two business models are quite different, as property casualty insurers do not hold demand deposits and the terms of our liabilities do not subject insurers to a run on the bank, i.e., are not runnable. The Basel III Endgame proposal, whether it is appropriate or inappropriate for structured securities held by banks, should not translate to state insurance regulation. The charge of state regulators is to set insurance-specific rules that protect policyholders, not to adopt global banking rules that do not reflect the best available data.

Finally, we would like to point out that, unlike the life RBC formula, there is no current mechanism for assigning property casualty Schedule BA asset RBC charges by investment type. Assigning a different charge to one particular investment type currently within Schedule BA is a significant change and should be supported by a more holistic review of the treatment of property casualty Schedule BA investments in general. This consideration further supports ACLI's call for a one-year extension of the implementation date.

Thank you for the opportunity to convey our views and your continued commitment to ensuring that RBC changes reflect analysis and consistent standards of review by regulators. We hope that you will seriously consider our request to delay the implementation of this charge by an additional year to ensure that an appropriate charge is developed and adopted.

Sincerely,

Stephen W. Broadie
Vice President, Financial & Counsel

AMERICANS for TAX REFORM

722 12th Street, N.W. • 4th Floor • Washington, D.C. 20005

April 17, 2024

Mr. Tom Botsko
Chair, Capital Adequacy (E) Task Force
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

Re: Oliver Wyman Report: *Residual Tranche Risk Analysis*

Dear Chair Botsko:

Americans for Tax Reform (ATR)[1] appreciates the opportunity to comment on the National Association of Insurance Commissioners' (NAIC) proposed increase to the risk-based capital (RBC) charge for residual tranches and interests of asset-backed securities (ABS). ATR also appreciates the opportunity to comment on Oliver Wyman's (OW) report analyzing the risk of losses to the residual tranches and interests of ABS under certain stress scenarios.[2] **ATR requests that the NAIC delay the implementation of the 45 percent RBC charge by at least one year. If the NAIC fails to delay the implementation of the 45 percent capital charge, then the NAIC should vote to establish the interim charge for residuals at 30 percent.**

The NAIC is arbitrarily increasing regulations on life insurance companies that invest in residual tranches and interests of ABS.[3] It appears that the NAIC's goal is to push life insurance companies out of residual tranches without any quantitative analysis to justify this change. The implementation of the proposed regulations will disincentivize life insurance companies from investing in residual ABS tranches, which could increase the cost of Americans' life insurance and annuities. **ATR is deeply concerned the NAIC will deter financial companies from keeping life insurance and annuity products affordable for Americans.**

Third-party data and analysis provide evidence that NAIC's proposed regulations go too far. The OW report finds that common stock losses are higher than losses on residual ABS tranches on a portfolio level. The NAIC's proposed equity capital increase from 30 percent to 45 percent for residual ABS tranches is not commensurate with the residual tranche risk observed within the OW report. Meanwhile, the common stock charge is 30 percent. The OW report offers support for a 30 percent capital charge, not a 45 percent charge.

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[1] ATR is a nonprofit, 501(c)(4) taxpayer advocacy organization that opposes all tax increases and supports limited government, free market policies. In support of these goals, ATR opposes heavy regulation and taxation of financial services. ATR was founded in 1985 at the request of President Ronald Reagan.
[2] https://content.naic.org/sites/default/files/inline-files/Oliver%20Wyman%20Residual%20Tranche%20Report.pdf.
[3] https://content.naic.org/about.

AMERICANS for TAX REFORM

Notably, another paper analyzing collateralized loan obligations (CLOs) found that "CLO equity exhibits a great deal of resilience to market volatility."[4]

ABS residuals offer significant returns to life insurance and annuities. Residuals are a "great return enhancer and fundamental diversifier."[5] These tranches and interests can also "play an effective role in generating return while keeping portfolio risk constant."[6] Increasing the RBC charge to 45 percent would limit life insurance companies' exposure to residuals, hamper returns, and increase costs for annuities that rely on those enhanced returns. Ultimately, American workers and retirees will bear the brunt of the increased RBC charge.

The NAIC's proposed regulations should be delayed by at least one year. If the NAIC fails to delay the implementation of the 45 percent RBC charge, then the charge should remain at 30 percent. This is more than reasonable considering the NAIC has not conducted a comprehensive cost-benefit analysis for increasing the RBC charge to 45 percent. Moreover, the OW report clearly shows the NAIC's proposed regulations are gratuitous. To date, no substantive quantitative analysis has been conducted to justify the NAIC's proposed 45 percent RBC charge for residuals.

Additionally, NAIC's proposed RBC charge should not be implemented simply to create parity with federal regulators' implementation of the Basel III Endgame bank capital requirements.[7] These bank regulations were originally formed by unelected bureaucrats in Basel, Switzerland. The NAIC should not implement rules for life insurance companies that will align with heavy-handed European-based regulations.

The proposed bank capital requirements arbitrarily punish securitizations by doubling the p-factor.[8] The increase in the p-factor fails to take into consideration the varying riskiness of different types of underlying collateral. So, the p-factor treats credit card debt and commercial paper as equally risky. Adding the NAIC's arbitrary RBC charge to residuals would unnecessarily, and without empirical evidence, label ABS as too risky for life insurance. The higher capital charges from the NAIC and the bank regulators will disincentivize banks and life insurance companies from adding exposure to securitizations. Life insurance companies will be forced to increase the cost of annuities, making them less attractive to American workers and retirees. Businesses "tend to pass on cost increases far more quickly than cost reductions."[9] Government-mandated capital controls will likely force life insurance companies to pass down these costs through annuities. It is widely observed that "[o]utput prices tend to respond faster to input increases than to decreases" in the producer and consumer goods markets.[10] Similarly, the cost of annuities will increase more quickly if the RBC charge for residuals increases to 45 percent.

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[4] https://w4.stern.nyu.edu/finance/docs/pdfs/Seminars/CLO-Performance.pdf.
[5] https://www.thornburg.com/article/think-abs-residuals-to-improve-your-risk-reward-trade-off/.
[6] Id.
[7] https://docs.house.gov/meetings/BA/BA20/20240131/116775/HHRG-118-BA20-Wstate-BashurB-20240131.pdf.
[8] https://www.federalregister.gov/d/2023-19200/p-564.
[9] https://www.cuna.org/content/dam/cuna/advocacy/priorities/documents/True-Impact-of-Interchange-Regulation-CornerstoneAdvisors-June-2023.pdf.
[10] https://www.jstor.org/stable/10.1086/262126.

NAIC's proposed regulations will force annuity providers to hold significantly more cash on hand. **Essentially, this will raise costs for consumers—acting as a *de facto* tax increase.** This is especially harmful to Americans considering the guaranteed lifetime income that annuities provide.[11]

The NAIC should not arbitrarily and capriciously increase the RBC charge for residual ABS tranches without a proper quantitative analysis. Since insurance is primarily regulated at the state level, state regulators wield significant power over the insurance industry. Although the NAIC is not subject to the *Administrative Procedure Act* (APA),[12] as a matter of proper due process, the NAIC should consider abiding by the APA's principles and allow for a structured notice-and-comment process that considers and analyzes hard data. Today, the NAIC possesses no hard evidence to suggest that raising the capital charge for residuals to 45 percent would provide any material benefits to life insurance companies or their clients.

One key element of ABS special purpose vehicles (SPVs)[13] is that they benefit from bankruptcy remoteness. Bankruptcy remoteness possesses advantages such as:

> *(i) the ability to segregate the assets to be financed such that they are held solely for the benefit of specific creditors and (ii) avoiding bankruptcy risks, costs, and delays including cram-down risk, the suspension of payments to creditors, and the limitations on enforcement actions against the [SPV] for nonpayment due to the automatic stay taking effect upon the filing of a bankruptcy case.*[14]

Legally isolating the securitized assets acquired by a SPV also gives ABS an advantage over corporate bonds and other non-securitized instruments. The "true sale" of assets creates a legal isolation between the SPV and the entity that originated the assets.[15] This structure "allows creditors financing the assets to focus on the credit quality of the assets rather than the credit quality of the originator, resulting in better financing terms for the issuer/borrower."[16] The "economic benefits" of bankruptcy remoteness "can significantly lower borrowing costs."[17] Increasing the RBC charge for residuals to 45 percent is more likely to worsen financing terms for annuities, not improve them.

The level of riskiness observed in ABS is further delineated by the NAIC itself. The NAIC has previously stated that "[a]sset-backed securities have proven over the years to be stable investments."[18]

The NAIC should avoid hindering American families from maximizing their nest eggs. Increasing the RBC charge for residuals to 45 percent would increase costs on annuities—effectively increasing costs on retirement options for American workers and retirees. Currently, there is no quantitative evidence to substantiate this RBC charge increase. **Consequently, ATR requests the 45 percent RBC charge on ABS residuals be delayed and remain at 30 percent.**

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[11] https://www.actuary.org/sites/default/files/2022-08/IB.SECUREact.8.22.pdf.
[12] https://www.justice.gov/sites/default/files/jmd/legacy/2014/05/01/act-pl79-404.pdf.
[13] https://am.credit-suisse.com/content/dam/csam/docs/articles/2022/cig-white-paper-collateralized-loan-obligations.pdf.
[14] https://www.choate.com/images/content/1/0/v2/104168/Bankruptcy-Remoteness-A-Summary-Analysis.pdf.
[15] Id.
[16] Id.
[17] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4178280.
[18] https://content.naic.org/cipr-topics/asset-backed-securities.

AMERICANS *for* **TAX REFORM**

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ATR appreciates the opportunity to comment on the OW report and the proposed 45 percent RBC charge. If you have any questions or need any additional information, please contact Bryan Bashur at bbashur@atr.org.

Sincerely,

Americans for Tax Reform

cc:　　Ms. Eva Yeung
　　　　Senior Property/Casualty RBC Specialist & Technical Lead
　　　　National Association of Insurance Commissioners
　　　　1100 Walnut Street, Suite 1500
　　　　Kansas City, MO 64106-2197

　　　　Submitted via electronic mail

Mr. Tom Botsko
Chair, Capital Adequacy (E) Task Force (CATF)
Via email: Eva Yeung (eyeung@naic.org)

Philip Barlow
Chair, Life Risk-Based Capital (E) Working Group (RBC IRE WG)
Via email: Dave Fleming (dfleming@naic.org)

Dear Mr. Barlow and Mr. Botsko:

As the President and CEO of the Florida State Hispanic Chamber of Commerce, I have always supported economic growth and free market principles to ensure success for all residents in our state. The strength of Florida's economy can be attributed to its free market practices. Following the recent National Association of Insurance Commissioners (NAIC) meeting, it seems the organization is seeking to stamp out competition that allows the free market to thrive. I find the precedent being set by the Risk-Based Capital Investment Risk and Evaluation Working Group (RBC IRE WG) and the Capital Adequacy (E) Task Force (CATF) troublesome. Both the RBC IRE WG's and CATF's decision to disregard objective, third-party data that they requested is concerning, and the findings should mandate a reexamination of the proposed 45% capital charge on residual tranches.

We've recently learned that many of the initiatives pushed by the NAIC are done so behind closed doors and not open to public input. However, this aggressive attempt at suppressing competition in the insurance market is open to public comment, and we'd like our voice to be heard. In the past, the NAIC has valued research and used data to drive its decisions, but now it seems like a lack of oversight has allowed the organization to run astray and be influenced by individual priorities and politics. The recent independent study conducted by Oliver Wyman provides validated data that demonstrates that asset-backed security (ABS) residuals don't have a higher risk, making the 45% charge in question unnecessary.

If the NAIC continues pursuing this charge, it would confirm that its real goal is to drive competition out of insurance markets, including life insurance and annuity markets. A frivolous 45% charge would clearly have an adverse effect on the market. The life insurance and annuity industry is critical to Florida's retirees, a community that primarily operates on a fixed income and would not be able to handle the impact of this proposed charge, which could reduce the number of affordable policies.

Further, this charge is also being proposed for property and casualty insurance companies, which would further increase costs in that market. As you know, Florida is experiencing an unprecedented crisis in the availability and affordability of homeowners insurance. Floridians are already leaving the state in droves because of skyrocketing insurance costs.[1] This is the

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[1] https://www.newsweek.com/florida-faces-exodus-insurance-costs-cause-residents-leave-state-1838206

absolute worst time for regulators to arbitrarily raise costs. The effect of such increased costs will hit Hispanic communities particularly hard given that Hispanics are already substantially less likely to have homeowners insurance than the general population.[2] When insurers are prevented from investing in high-returning assets, they will be forced to minimize their offerings, which will lead to higher costs.

Unfortunately, the NAIC's recent actions are seemingly guided by political agendas rather than sound policymaking. The NAIC should be forging new ways to lower costs and provide more options for consumers, especially in states like Florida, not working to suppress the free market. I ask the NAIC to act in favor of data and in favor of consumers and vote in support of the one-year delay.

Sincerely,
Julio Fuentes
President and CEO of the Florida State Hispanic Chamber of Commerce

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[2] https://consumerfed.org/wp-content/uploads/2024/03/Exposed-UninsuredHomes-1.pdf

April 8, 2024

Mr. Philip Barlow, Chair
Chair, Risk-Based Capital Investment and Evaluation (E) Working Group
National Association of Insurance Commissioners
c/o Dave Fleming
Via Email: dfleming@naic.org

Mr. Tom Botsko
Chair, Capital Adequacy (E) Task Force
National Association of Insurance Commissioners
c/o Eva Yueng
Via Email: eyeung@naic.org

RE: Oliver Wyman Residual Tranche Risk Analysis and Proposal 2024-02-CA

Dear Mr. Barlow and Mr. Bostko,

Thank you for the opportunity to comment on the Oliver Wyman Residual Tranche Risk Analysis and Proposal 2024-02-CA. The following is submitted on behalf of the member companies of the National Association of Mutual Insurance Companies (NAMIC).

NAMIC has more than 1,500-member companies representing 40 percent of the total U.S. property/casualty insurance market. NAMIC member companies serve more than 170 million policyholders and write more than $323 billion in annual premiums. Our members' direct written premiums account for 67 percent of homeowners' insurance and 55 percent of automobile insurance. Through NAMIC advocacy programs it promotes public policy solutions that benefit NAMIC member companies and the policyholders they serve and fosters greater understanding and recognition of the unique alignment of interests between management and policyholders of mutual companies.

NAMIC is writing to express our support for an additional one-year implementation delay of the increased 45% capital charge on asset-backed security (ABS) residual tranches and interests.

As noted by the American Council of Life Insurers (ACLI) at the March National NAIC meeting, the insurance industry is aligned that regulators and stakeholders must thoroughly assess new data and discuss and evaluate all residual tranche charges to ensure that they align with the actual risk. Aligning risk with capital is also consistent with a foundational principle of the recently proposed Holistic Framework – equal capital for equal risk.

We believe that providing an additional year will allow additional analysis, including by the Academy of Actuaries, to help the regulatory community arrive at an informed decision and produce specific recommendations that are based on fact, and specific to individual types of assets. This additional year can provide an opportunity for understanding the impact to property and casualty companies, as opposed to assuming the risk is the same as the life industry. Unlike the life risk-based capital calculation, there is no current mechanism for assigning a property/casualty Schedule BA asset charge by investment type. Such a change in charge is significant and should be supported by a holistic review of the treatment of property/casualty Schedule BA investment types in general, rather done in isolation for one specific investment type, such as residual tranches. This concern also supports the need for additional analysis.

Thank you for your consideration of our views and your support for a process that provides consistent rigor and standards when evaluating insurance company investments for purposes of changing RBC.

Sincerely,

Colleen Whitng Scheele

Colleen W. Scheele, Public Policy Counsel and Director of Financial and Tax Policy
National Association of Mutual Insurance Companies

From: Karen Melchert <KarenMelchert@acli.com>
Sent: Thursday, April 4, 2024 12:03 PM
To: French, Judith <Judith.French@insurance.ohio.gov>; Botsko, Thomas <Thomas.Botsko@insurance.ohio.gov>; Bruggeman, Dale <Dale.Bruggeman@insurance.ohio.gov>
Subject: Oliver Wyman Residual Tranche Report - ACLI Response

Dear Director French, Mr. Bruggeman and Mr. Botsko,

On behalf of the ACLI we wanted to thank you for the opportunity to comment at the RBC Capital Investment Risk and Evaluation Working Group Committee meeting on March 17th at the NAIC Spring meeting in Phoenix. As you may recall, ACLI spoke at the meeting and requested that regulators delay the implementation of the 45% charge for residuals for one year. We wanted to briefly follow up with you before we submit our comment letter on the Oliver Wyman Residual Tranche Report on April 8th.

ACLI respectfully requests the NAIC postpone implementation of the 45% charge for one additional year. During this additional year, regulators and stakeholders can thoroughly assess new data and discuss and evaluate all residual tranche charges to ensure that they align with the actual risk.

Given the complexities associated with ABS and the potential long-term consequences of changing capital charges, we believe more time is required to finalize the approach. Factors, especially those that are likely long-term, should be data driven. Aligning risk with capital is consistent with a foundational principle of the Holistic Framework – equal capital for equal risk. The factor(s) for residual tranches should align with the principles adopted by the RBC IRE group in December 2023, which emphasized the need for the capital charge to align with the tranche's risk, to the extent possible.

ACLI supports further study on the potential drivers of risk within the residual tranches to determine appropriate interim RBC factors and we believe that a one-year implementation delay will allow further study to better understand and take into account emerging data and research by the Academy.

ACLI will share a copy of our April 8th comment letter with you as soon as it is ready, and we are happy to organize a call to discuss our request. Please let me know if you have any questions or if you are available for a call.

Thank you,

Karen Melchert

From: Chou, Wanchin <Wanchin.Chou@ct.gov>
Sent: Tuesday, April 16, 2024 10:53 AM
To: Botsko, Thomas <thomas.botsko@insurance.ohio.gov>; Yeung, Eva <EYeung@naic.org>
Cc: Chang, Maggie <mchang@naic.org>
Subject: Proposal 2024-02-CA (Residual Structure PC & Health)

> **CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Tom,

I can follow up with more formal and detailed comment letter if needed. My major comments are as follows:

1. There are many moving pieces for the residual tranches currently discussed at the RBC IRE. It is not effective to adopt this specific proposal and revise it later when the final proposal in managing the residual tranches is to be approved. 45% is only an interim alternative and the split votes (4/11/1) last Friday showed significant concerns among RBC IRE members. Future better structure could be significant different from Proposal 2024-02-CA exposed. AAA has preliminary estimate to complete the study in 2 years if not longer.
2. Historically, the Bond and other investment asset RBC charges in Life RBC, P&C, and Health are different due to different considerations and impacts of their investment assets, LOB, operations, strategy, and ALM, etc. Without a study, I would not recommend changing current 0.20 factor to 0.45 as a voting member.

My recommendation is to hold and wait or withdraw current proposal. We should discuss again later this year when RBC IRE has better guidance and strategic plans. The impacts to the P&C and Health RBC reporting are very limited and a delay in changing current RBC reporting is prudent. Please do not change the current factor (0.20) if a structure change is a must.

Best Regards,

Wanchin W. Chou, FCAS, MAAA, CPCU, CSPA, CCRMP
Chief Insurance Actuary and Asst. Deputy Commissioner
State of Connecticut Insurance Department
Office Phone: 860-297-3943
Cell Phone: 860-488-4408