



## AMERICAN ACADEMY *of* ACTUARIES

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### **Follow-up Report of the American Academy of Actuaries' Life Capital Adequacy Subcommittee on Instruction and Formula Modifications in Response to Questions**

### **Presented to the National Association of Insurance Commissioners' Life Risk-Based Capital Working Group**

**February 2002**

The American Academy of Actuaries is the public policy organization for actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification and practice and the Code of Professional Conduct for all actuaries practicing in the United States.

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The following report was originally written in June 2000. It was then revised for the February 15, 2002 LRBC Working Group conference call and then again for the February 28, 2002 Working Group conference call. These revisions appear in Appendix 2 (page 4).



## **Background**

In June, 2000 the American Academy of Actuaries' LRBC Task Force (now the Life Capital Adequacy Subcommittee), in a report to this Working Group, answered a series of questions that had been submitted to the NAIC. This report addresses the follow-up items for several of the questions as requested by the Working Group and includes updated appendices from February 2002.

## **Instruction and Formula Modifications**

As the result of three of these answers (shown in Appendix 1), it is necessary to modify the RBC instructions and formulas. Attachment 3 includes the details of these modifications. Specifically, the areas changed were:

### **(1) Non admitted Common stock (Item 1)**

See pages 8 - 9 of the attached instructions (with boldface and underscore)

See page LR005 of the attached formula pages modification (boldface changes)

### **(2) Underwriting Risk - Medicare Supplement Net of Reinsurance (Item 2)**

See page 28 of the attached instructions (with boldface and underscore)

### **(3) Group and Credit Reinsurance Net of Separate Accounts (Item 3)**

See page 36 of the attached instructions (with boldface and underscore)

See page LR020 of the attached formula pages modifications (boldface changes)

## **LR008 Other Long-Term Assets - Limited Partnerships and Look-Through**

In our earlier response to the question as to whether there is a "look-through" for rated investments that a limited partnership is investing in (similar to "look-through" treatment on the AVR), we said further review would be necessary. Moreover, particular attention was to be given to the issue of limited partnerships that contain assets with and without a rating from a NRSRO.

We have concluded that there should be a "look-through" on limited partnership assets. Moreover, if a limited partnership includes both rated and unrated assets, the unrated asset should not "taint" the whole partnership. The unrated asset should get a 30% RBC factor. However, the rated assets should get their own appropriate RBC factor.

We have made the modifications to accomplish this:

See page 13 of the attached instructions (with boldface and underscore)

See page LR008 of the attached formula pages modifications (boldface changes).

We also had to make some slight modifications here to account for the fact that the new Provisionally Exempt assets should be treated similar to SVO rated assets for RBC purposes.

## Appendix 1

### Excerpts from the Academy's LRBC Task Forces' May 17, 2000 Response to 8 NAIC Questions

#### **1. Page LR005 Unaffiliated Preferred and Common Stock:**

*A company can have non-admitted amounts that are not deducted from the market value shown on Schedule D Summary by Country Column 2. If that is the case, the company is either over-charged on RBC or has to manually enter the vendor link data. A line could be added for non-admitted common stock that is not reflected in the market value of Schedule D Summary by Country Column 2.*

Schedule D Summary by Country, which is the RBC source, the amount in Line 54, Column 2 should generally equal the admitted asset base for unaffiliated common stock. However, based on an examination of annual statements, this is not always true. Thus a line should be added to the RBC directions to subtract any additional non-admitted parts from the Schedule D Summary by Country number. This information would be obtained from company records.

#### **2. Page LR016 Underwriting Risk – Experience Fluctuation Risk:**

*The instructions for Line (6) Column (3) specify this amount should come from General Interrogatories Line 28e. However, this line does not specify whether it is net or direct in the annual statement or instructions. The premiums on line 28b are reported direct and there is an annual statement crosscheck to the Medicare Supplement Exhibit, which is a direct amount. So, most companies are reporting line 28e as direct and a net amount is needed for RBC.*

The RBC needs the amount net of reinsurance, yet line 28e is direct. An additional line should be added to the RBC worksheet to subtract out the reinsurance ceded. This information would be obtained from company records.

#### **3. Page LR020 Life Insurance:**

*Line (5) of this page allows amounts to be deducted for separate account reserves for Individual and Industrial Net Amount at Risk. The question has come up as to why there is no line to deduct separate account reserves in the Group and Credit Net Amount at Risk section of this page.*

Group and Credit should be handled the same way as Individual and Industrial. Their separate account reserves are listed in the annual statement. Additional lines should be added to the RBC worksheet to subtract out the Group and Credit separate account reserves in the Net Amount at Risk section.

## Appendix 2

In prior discussion of our recommendation of changes to LR008 to allow "look-through" treatment for rated assets of a limited partnership, the Working Group asked us to consider the appropriate treatment if short positions were held.

The attached suggested addition to the instructions addresses what we suggest as a practical and appropriate solution to that situation.

Suggested new words for the O&I:

If the partnership holds short "rated asset" positions in other than an affiliate, the general treatment is to hold the absolute value of the product of the C1 factor and the amount of the position.

One exception to the general rule is if the short position is in rated securities or debt of a company for which the partnership also holds a long position. In that case, the c1 amount is the greater of the C1 factors applied to the long position or the absolute value of the C1 factor applied to the short positions.

The Academy's Life Capital Adequacy Subcommittee has considered how short positions in stocks, bonds, etc., within a partnership should affect the risk-based capital for the Schedule BA asset. Since we think the correct answer would depend on the detailed facts of the situation, we recommend that at this time we simply don't allow partnerships of this type to use a look through approach. If it turns out that this disqualifies a number of such partnerships, we may try to find a more refined answer in the future.

LIFE RISK BASED CAPITAL FORMULA  
INSTRUCTION CHANGES

[LR010]

- 1) Asset Concentration Factor and its Instructions  
To ensure doubled factor does not exceed 45%:

Class 5 Bonds	20%
Class 6 Bonds	15%
Class 5 Preferred Stock	20%
Class 6 Preferred Stock	15%
Surplus Notes Class 5 or 6 if any	20%,15%
Capital Notes Class 5 or 6 if any	20%,15%

[LR027]

- 2) Correct taxes on C-0 Off-Balanced Sheet items that is currently being carried incorrectly to C-1.

To correct this:

- [LR026]
- line (97) should be line (104)
  - Lines (98) to (104) should be remembered as lines (97) to 103)
  - new line (103) should sum lines (1) to (102)
  - new line (111) should sum lines (104) to 110)

[LR020]

- 3) Disability Income and Long Term Care Exhibit 9 Claim Reserves should be adjusted for taxes; other Claim Reserves included in Col (2) line (15) should not be changed.

Line (9) delete lines and factor shown in four right columns  
Add line 9.1 DI and LTC Claim Reserves  
Add line 9.2 All other Claim Reserves  
Line (14) delete: lines and factor in four right columns  
Add line (14.1) DI and LTC Claim Reserves  
Add line (14.2) All Other Claim Reserves  
Line (15) delete: line in right most column  
Add line (15.1) DI and LTC Claim Reserves  
Add line (15.2) All Other Claim Reserves

[LR026]

Pretax factor 027; tax factor is .35

[LR027]

line 8.1 No Source Change

Line 37 Source Change from (104) to (103)

Schedule BA affiliated common stock-all other shown on line 45.3 should be included in C-1 Common stock –not into C-1 Other . The objective is to put all common and preferred stock of non-insurance affiliates into C-1cs and the other stock into C-1o. Specifically this means all subs with affiliate code 12 in the current life based framework and “holding company in excess of indirect subsidiaries” or subsidiaries with affiliate code 6 are to be included in C-1cs. The following are needed to accomplish this:

[LR008]

Re-label line 45.4 as “Total Schedule BA Affiliated Common Stock C-1o” and set equal to line 45.1 + line 45.2. Apply a 30% factor as is currently done.

Add line 45.5, labeled “Total Schedule BA Affiliated Common Stock C-1cs” and set equal to line 45.3. Apply a 30% factor as is currently done.

In determining the total at line 48, include line 45.4, but do not include line 45.5.

[LR026]

Re-label line 76 as “BA Affiliated Common Stock – C-1o”

Add line 115.1, labeled “BA Affiliated Common Stock – C-1cs” and set equal to LR008, line 45.5. Use a tax factor of .3500

Include line 115.1 in the total at line 119

[LR027]

Add line 10.1, labeled “BA Affiliated Common Stock – C-1cs” and set equal to LR008, line 45.5.

Include line 10.1 in the total at line 14



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**UNAFFILIATED PREFERRED AND COMMON STOCK**

		(1)	(2)	(3)		(4)	#REF!
	<u>Annual Statement Source</u>	<u>Statement Value</u>	<u>Less Affiliated Preferred Stock Without AVR</u>	<u>RBC Subtotal</u>	<u>Factor</u>	<u>RBC Requirement</u>	
<u>Unaffiliated Preferred Stock</u>							
(1) Asset Class 1	AVR Default Component Column 1 Line 10			X 0.009	=		
(2) Asset Class 2	AVR Default Component Column 1 Line 11			X 0.025	=		
(3) Asset Class 3	AVR Default Component Column 1 Line 12			X 0.060	=		
(4) Asset Class 4	AVR Default Component Column 1 Line 13			X 0.135	=		
(5) Asset Class 5	AVR Default Component Column 1 Line 14			X 0.250	=		
(6) Asset Class 6	AVR Default Component Column 1 Line 15			X 0.300	=		
(7) Total Unaffiliated Preferred Stock	Sum of Lines (1) through (6)						
(Column (1) should equal Page 2 Column 4 Line 2.1 less Asset Valuation Reserve Default Component Column 1 Line 16.)							
(Column (2) should equal Schedule D Summary Column 5 Line 39 less Asset Valuation Reserve Default Component Column 1 Line 16.)							
<u>Unaffiliated Common Stock</u>							
(8) Total Common Stock	Schedule D Summary Column 2 Line 54						
(9) Less Affiliated Common Stock	Schedule D Summary Column 2 Line 53						
(10) Less Non-Admitted Common Stock included in Line (8)	Company Records						
(11) Less Money Market Funds	Included in Schedule D Part 2 Section 2			X 0.003	=		
(12) Less Federal Home Loan Bank Common Stock	Included in Schedule D Part 2 Section 2			X 0.023	=		
(13) Net Other Unaffiliated Common Stock	Lines (8) - (9) - (10) - (11) - (12)			X 0.300	=		
(14) Total Unaffiliated Common Stock	Lines (11) + (12) + (13)						
(Column 1 should equal Page 2 Column 4 Line 2.2 less Schedule D Summary by Country Column 2 Line 53)							
(15) Total Unaffiliated Preferred and Common Stock (pre-MODCO/Funds Withheld)	Line (7) + Line (14)						
(16) Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	Company Records						
(17) Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	Company Records						
(18) Total Unaffiliated Preferred and Common Stock (including MODCO/Funds Withheld.)	Lines (15) - (16) + (17)						

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

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Company Name

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**OTHER LONG-TERM ASSETS**

#REF!

		(1) Statement Value	(2) Unrated Items †	(3) RBC Subtotal ‡	Factor	(4) RBC Requirement
	<u>Annual Statement Source</u>					
	<u>Schedule BA - Fixed Income - Bonds</u>					
(1)	Exempt Obligations	AVR Equity Component Column 1 Line 22			X 0.000 =	
(2)	Asset Class 1	AVR Equity Component Column 1 Line 23			X 0.003 =	
(3)	Asset Class 2	AVR Equity Component Column 1 Line 24			X 0.010 =	
(4)	Asset Class 3	AVR Equity Component Column 1 Line 25			X 0.040 =	
(5)	Asset Class 4	AVR Equity Component Column 1 Line 26			X 0.090 =	
(6)	Asset Class 5	AVR Equity Component Column 1 Line 27			X 0.200 =	
(7)	Asset Class 6	AVR Equity Component Column 1 Line 28			X 0.300 =	
(8)	Total Schedule BA Bonds (pre-MODCO/Funds Withheld)	Sum of Lines (1) through (7)				
(9)	Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	Company Records				
(10)	Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	Company Records				
(11)	Total Schedule BA Bonds (including MODCO/Funds Withheld.)	Lines (8) - (9) + (10)				
	<u>Schedule BA - Fixed Income - Preferred Stock</u>					
(12.1)	Asset Class 1	AVR Equity Component Column 1 Line 30				
(12.2)	Less Rated Class 1 Surplus Notes and Capital Notes	Column (1) Line (22) + Column (1) Line (32)				
(12.3)	Net Asset Class 1	Line (12.1) - (12.2)			X 0.009 =	
(13)	Asset Class 2	AVR Equity Component Column 1 Line 31			X 0.025 =	
(14)	Asset Class 3	AVR Equity Component Column 1 Line 32			X 0.060 =	
(15)	Asset Class 4	AVR Equity Component Column 1 Line 33			X 0.135 =	
(16)	Asset Class 5	AVR Equity Component Column 1 Line 34			X 0.250 =	
(17)	Asset Class 6	AVR Equity Component Column 1 Line 35			X 0.300 =	
(18)	Total Schedule BA Preferred Stock (pre-MODCO/Funds Withheld)	Sum of Lines (12.3) through (17)				
(19)	Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	Company Records				
(20)	Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	Company Records				
(21)	Total Schedule BA Preferred Stock (including MODCO/Funds Withheld.)	Lines (18) - (19) + (20)				

† Fixed income instruments and surplus notes **which either are** rated by the NAIC Securities Valuation Office (SVO) **or are in the Provisionally Exempt (PE) categories** should be reported in Column (3).

‡ Column (2) is calculated as Column (1) less Column (3) for Lines (1) through (17). Column (2) equals Column (3) - Column (1) for Line (41.3).

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

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**OTHER LONG-TERM ASSETS (CONTINUED)**

#REF!

		(1) Statement Value	(2) Unrated Items †	(3) RBC Subtotal ‡	Factor	(4) RBC Requirement
	<u>Annual Statement Source</u>					
<u>Rated Surplus Notes</u>						
(22) Rated Class 1 Surplus Notes	Schedule BA Part 1 Column 10 Line 1199999, in part			X 0.009 =		
(23) Rated Class 2 Surplus Notes	Schedule BA Part 1 Column 10 Line 1199999, in part			X 0.025 =		
(24) Rated Class 3 Surplus Notes	Schedule BA Part 1 Column 10 Line 1199999, in part			X 0.060 =		
(25) Rated Class 4 Surplus Notes	Schedule BA Part 1 Column 10 Line 1199999, in part			X 0.135 =		
(26) Rated Class 5 Surplus Notes	Schedule BA Part 1 Column 10 Line 1199999, in part			X 0.250 =		
(27) Rated Class 6 Surplus Notes	Schedule BA Part 1 Column 10 Line 1199999, in part			X 0.300 =		
(28) Total Rated Surplus Notes (pre-MODCO/Funds Withheld)	Sum of Lines (22) through (27)					
(29) Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	Company Records					
(30) Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	Company Records					
(31) Total Rated Surplus Notes (including MODCO/Funds Withheld.)	Lines (28) - (29) + (30)					
<u>Rated Capital Notes</u>						
(32) Rated Class 1 Capital Notes	Schedule BA Part 1 Column 10 Line 1399999, in part			X 0.009 =		
(33) Rated Class 2 Capital Notes	Schedule BA Part 1 Column 10 Line 1399999, in part			X 0.025 =		
(34) Rated Class 3 Capital Notes	Schedule BA Part 1 Column 10 Line 1399999, in part			X 0.060 =		
(35) Rated Class 4 Capital Notes	Schedule BA Part 1 Column 10 Line 1399999, in part			X 0.135 =		
(36) Rated Class 5 Capital Notes	Schedule BA Part 1 Column 10 Line 1399999, in part			X 0.250 =		
(37) Rated Class 6 Capital Notes	Schedule BA Part 1 Column 10 Line 1399999, in part			X 0.300 =		
(38) Total Rated Capital Notes	Sum of Lines (32) through (37)					
<u>Schedule BA - All Other</u>						
(39) Schedule BA Common Stock	AVR Equity Component Column 1 Line 60			X 0.300 =		
(40) Schedule BA Collateral Loans	Schedule BA Part 1 Column 10 Line 1299999			X 0.050 =		
(41.1) Other Schedule BA Assets	AVR Equity Component Column 1 Line 65					
(41.2) Less Class 2 thru 6 Rated Surplus Notes and Capital Notes	Column (1) Lines (23) through (27) + Column (1) Lines (33) through (37)					
(41.3) Net Other Schedule BA Assets	Line (41.1) less (41.2)			X 0.300 =		
(42) Total Schedule BA Assets	Lines (11) + (21) + (31) + (38) + (39) + (40) + (41.3)					

† Fixed income instruments and surplus notes **which either are** rated by the NAIC Securities Valuation Office (SVO) **or are in the Provisionally Exempt (PE) categories** should be reported in Column (3).

‡ Column (2) is calculated as Column (1) less Column (3) for Lines (1) through (17). Column (2) equals Column (3) - Column (1) for Line (41.3).

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

#REF!

**UNDERWRITING RISK**

#REF!

**Experience Fluctuation Risk**

	Line of Business	(1) Comprehensive Medical	(2) Medical Only	(3) Medicare Supplement	(4) Dental & Vision	(5) Other	(6) Total
(1.1)	Premium – Individual		XXX			XXX	
(1.2)	Premium – Group		XXX			XXX	
(1.3)	Premium – Total = Line (1.1) + Line (1.2)		XXX			XXX	
(2)	Title XVIII-Medicare†		XXX	XXX		XXX	
(3)	Title XIX-Medicaid†		XXX	XXX		XXX	
(4)	Other Health Risk Revenue†		XXX	XXX		XXX	
(5)	Underwriting Risk Revenue = Lines (1.3) + (2) + (3) + (4)		XXX			XXX	
(6)	Net Incurred Claims		XXX			XXX	
(7)	Fee-for-Service Offset†		XXX	XXX		XXX	
(8)	Underwriting Risk Incurred Claims = Line (6) – Line (7)		XXX			XXX	
(9)	Underwriting Risk Claims Ratio = Line (8) / Line (5)		XXX			XXX	XXX
(10.1)	Underwriting Risk Factor for Initial Amounts Of Premium‡	0.150	XXX	0.105	0.120	XXX	XXX
(10.2)	Underwriting Risk Factor for Excess of Initial Amount‡	0.090	XXX	0.067	0.076	XXX	XXX
(10.3)	Composite Underwriting Risk Factor		XXX			XXX	XXX
(11)	Base Underwriting Risk RBC = Line (5) x Line (9) x Line (10.3)		XXX			XXX	
(12)	Managed Care Discount Factor = LR018 Column (2) Line (11)		XXX			XXX	XXX
(13)	Base RBC After Managed Care Discount = Line (11) x Line (12)		XXX			XXX	
(14)	RBC Adjustment For Individual = [ {Line(1.1) x 1.2 + Line (1.2)} / Line (1.3) ] x Line (13)§		XXX			XXX	
(15)	Maximum Per-Individual Risk After Reinsurance†		XXX			XXX	XXX
(16)	Alternate Risk Charge*		XXX			XXX	
(17)	Net Alternate Risk Charge£		XXX			XXX	
(18)	Net Underwriting Risk RBC (Maximum of Line (14) or Line (17) )		XXX			XXX	

† 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 &amp; Vision, the Initial Premium Amount is \$3,000,000 or the amount in Line (1.3) if smaller.

§ Formula applies only to Column (1), for all other columns Line (16) should equal Line (15).

\* The Line (18) Alternate Risk Charge is calculated as follows:

LESSER OF:	\$1,500,000 or 2 x Maximum Individual Risk	XXX	\$50,000 or 2 x Maximum Individual Risk	\$50,000 or 2 x Maximum Individual Risk	XXX	Maximum of Columns (1), (3) and (4)
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£ Applicable only if Line (18) for a column equals Line (18) for Column (6), otherwise zero.

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**LIFE INSURANCE**

#REF!

		(1)		(2)
	<u>Annual Statement Source</u>	<u>Statement Value</u>	<u>Factor</u>	<u>RBC Requirement</u>
<u>Individual &amp; Industrial Net Amount at Risk</u>				
(1) Ordinary Life In Force	Exhibit of Life Insurance Column 4 Line 22 x 1000			
(2) Less Ordinary Life Reserves	Exhibit 8 Column 4 Line 0199999			
(3) Plus Industrial Life In Force	Exhibit of Life Insurance Column 2 Line 22 x 1000			
(4) Less Industrial Life Reserves	Exhibit 8 Column 3 Line 0199999			
(5) Less Separate Accounts	Separate Accounts Exhibit 6 Column 3 Line 0199999			
(6) Less Modified Coinsurance Assumed Reserves	Schedule S Part 1 Section 1 Column 11, in part ‡			
(7) Plus Modified Coinsurance Ceded Reserves	Schedule S Part 3 Section 1 Column 13, in part ‡			
(8) Total Individual and Industrial Net Amount at Risk	Lines (1) + (3) + (7) - (2) - (4) - (5) - (6)		X † =	
<u>Group and Credit Net Amount at Risk</u>				
(9) Group Life In Force	Exhibit of Life Insurance Column 9 Line 22 x 1000			
(10) Less Group FEGLI	Exhibit of Life Insurance Column 4 Line 36 x 1000			
(11) Less Group SGLI	Exhibit of Life Insurance Column 4 Line 37 x 1000			
(12) Less Group Life Reserves	Exhibit 8 Column 6 Line 0199999			
(13) Plus Credit Life In Force	Exhibit of Life Insurance Column 6 Line 22 x 1000			
(14) Less Credit FEGLI	Exhibit of Life Insurance Column 2 Line 36 x 1000			
(15) Less Credit SGLI	Exhibit of Life Insurance Column 2 Line 37 x 1000			
(16) Less Credit Life Reserves	Exhibit 8 Column 5 Line 0199999			
(17) Less Separate Accounts	Separate Accounts Exhibit 6 Col. 4 Line 0199999			
(18) Less Modified Coinsurance Assumed Reserves	Schedule S Part 1 Section 1 Column 11, in part ‡			
(19) Plus Modified Coinsurance Ceded Reserves	Schedule S Part 3 Section 1 Column 13, in part ‡			
(20) Total Group and Credit Net Amount at Risk	Lines (9) + (13) + (19) - (10) - (11) - (12) - (14) - (15) - (16) - (17) - (18)		X † =	
(21) FEGLI/SGLI Life In Force	Exhibit of Life Insurance Column 2 and 4 Line 36 and 37 x 1000		X 0.0005 =	
(22) Total Life	Lines (8) + (20) + (21)			

† The tiered calculation is illustrated in the Life Insurance section of the risk-based capital instructions.

‡ Include only the portion which relates to policy reserves that, if written on a direct basis, would be included on Exhibit 8.

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

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# **2000 NAIC Life Risk-Based Capital Report**

## **Including**

### **Overview and Instructions for Companies**



**as of December 31, 2000**

**Confidential  
when Completed**

***NAIC***

**National Association  
of Insurance Commissioners**

## UNAFFILIATED PREFERRED AND COMMON STOCK

LR005

### *Basis of Factors*

#### Unaffiliated Preferred Stock

The preferred stock factors were changed in 1997 to reflect a recent study by Moody's of preferred stock cumulative dividend impairment rates (1980-94) and cumulative default rates on corporate bonds (1970-95). The risk for preferred stock is based on risk of default as well as the risk of passed dividends. The class 5 factor is based on judgement since data is not available.

#### Unaffiliated Common Stock

Non-government money market mutual funds are more like cash than common stock, therefore it is appropriate to use the same factor as for cash. Federal Home Loan Bank Stock has characteristics more like a fixed-income instrument rather than common stock. A 2.3 percent factor was chosen. The factor for other unaffiliated common stock is based on studies conducted at two large life insurance companies. Both of these studies indicate that a 30 percent factor is needed to provide capital to cover approximately 95 percent of the greatest losses in common stock value over a two-year future period. This factor assumes capital losses are unrealized and not subject to favorable tax treatment at the time loss in market value occurs.

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

#### Lines (1) through (6)

Column (1) amounts are from the Asset Valuation Reserve Default Component, Page 42, Column 1, Lines 10 through 15 of the Annual Statement. Since affiliated amounts are included for affiliated companies without an AVR in the Asset Valuation Reserve Default Component, Lines 10 through 15, these affiliated amounts should be deducted in Column (2). Affiliated companies with an AVR are reported on the Asset Valuation Reserve Default Component, Line 16 and should not be included in Column (2).

#### Line (7)

Column (1) should equal Annual Statement Assets, Page 2, Column 4, Line 2.1 less Asset Valuation Reserve Default Component Column 1 Line 16. Column (2) should equal Schedule D Summary by Country, Column 5, Line 39 less Asset Valuation Reserve Default Component, Column 1, Line 16.

#### Line (10)

**Amount should reflect any non-admitted unaffiliated common stock that was included in the market value of Schedule D Summary by Country, Line 54, Column 2 (Line 8 of this worksheet).**

#### Line (11)

Amounts should reflect only those money market mutual funds reported on Schedule D, Part 2, Section 2. Money market funds qualifying for Schedule DA treatment or reported on Schedule D, Part 1 should not be included on this line. Refer to the NAIC's *Purposes and Procedures of the Securities Valuation Office* for a discussion on those money market funds that qualify for Schedule DA treatment.

#### Line ~~(11)~~(12)

Federal Home Loan Bank common stock reported on Schedule D, Part 2, Section 2 of the Annual Statement should be reflected on this line.

#### Line (14)

Column (1) should equal Annual Statement Schedule D Summary by Country, Column 2, Line 54 less Schedule D Summary by Country, Column 2, Line 53 **less Line (10) Non-Admitted Common Stock less Line (11)** money market funds less Line ~~(11)~~**(12)** Federal Home Loan Bank stock.



## OTHER LONG-TERM ASSETS

LR008

### *Basis of Factors*

Recognizing the diverse nature of Schedule BA assets, the RBC is calculated by assigning different risk factors according to the different type of assets. ~~Assets~~If assets with underlying characteristics of bonds and preferred stocks either have been rated by the NAIC Securities Valuation Office (SVO) or are in Provisionally Exempt (PE) categories, they have different factors according to the ~~SVO-assigned~~SVO/PE classification. Unrated fixed-income securities (i.e., those without a SVO/PE classification) will be treated the same as Other Schedule BA Assets and assessed a 30 percent charge. If a BA asset consists of both unrated and SVO/PE rated fixed-income securities, the 30% factor should only be applied to the unrated portion. The rated portion should get the appropriate factors according to the SVO/PE classification.

Rated surplus and capital notes have the same factors applied as Schedule BA assets with the characteristics of preferred stock.  
~~stock.~~

Where it is not possible to determine the RBC classification of an asset, a 30 percent factor is applied.

If an asset included on page LR008 contains a short position (i.e., participation in the debt or equity of another business or governmental entity which moves inversely with the price of the referenced item), then the entire asset must use a 30% factor. Hedges to exposures in the long portfolio are not considered short positions for this purpose.

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

#### Line (42)

Total Schedule BA assets [LR008 Other Long-Term Assets Column (1) Line (42) plus LR007 Real Estate Column (1) Line (20) plus LR009 Schedule BA Mortgages Column (1) Line (8)] should equal the total Schedule BA assets reported in the Annual Statement Page 2 Column 4 Line 8.



<u>Line (19)</u>	Other Long-Term Care – Individual Morbidity	Earned Premium (Schedule H, Part 1, Line 2, in part) first 50 Million less the premium in line (18) up to 50 million	_____	X 0.250 =	_____
		Earned Premium (Schedule H, Part 1, Line 2, in part) not included above subject to the 0.250 factor	_____	X 0.150 =	_____
		Total (Amounts reported on Health Premiums, Line (13))	=====		=====
<u>Line (20)</u>	Long-Term Care - Group Morbidity	Earned Premium (Schedule H, Part 1, Line 2, in part) first 50 Million less the premium in line (18) or (19) up to 50 million	_____	X 0.250 =	_____
		Earned Premium (Schedule H, Part 1, Line 2, in part) not included above subject to the 0.250 factor	_____	X 0.150 =	_____
		Total (Amounts reported on Health Premiums, Line (20))	=====		=====

Line (22)

It is anticipated that most health premium will have been included in one of the other lines. In the event that some coverage does fit into any of these categories, the “Other Health” category continues the RBC factor from the 1998 and prior formula for Other Limited Benefits Anticipating Rate Increases.

## UNDERWRITING RISK – EXPERIENCE FLUCTUATION RISK

LR016

The underwriting risk generates the RBC requirement for the risk of fluctuations in underwriting experience. The credit that is allowed for managed care in this worksheet comes from LR018 Underwriting Risk - Managed Care Credit page.

Underwriting risk is present when the next dollar of unexpected claims payments comes directly out of the company’s capital and surplus. It represents the risk that the portion of premiums intended to cover medical expenses will be insufficient to pay such expense. For example, an insurer may charge an individual \$100 in premium in exchange for a guaranty that all medical costs will be paid by the insurer. If the individual incurs \$101 in claims costs, the company’s surplus will decline because it did not charge a sufficient premium to pick up the additional risk for that individual.

There are other arrangements where the insurer is not at risk for excessive claims payments, such as when an insurer agrees to serve as a third-party administrator for a self-insured employer. The self-insured employer pays for actual claims costs, so the risk of excessive claims experience is borne by the self-insured employer, not the insurer. The underwriting risk section of the RBC formula therefore requires some adjustments to remove non-risk business (both premiums and claims) before the RBC requirement is calculated.

### Claims Experience Fluctuation

The RBC requirement for claims experience fluctuation is based on the greater of the following calculations:

A. Underwriting risk revenue times the underwriting risk claims ratio times a set of factors.

or

B. An alternate risk charge that addresses the risk of catastrophic claims on any single individual. The alternate risk charge is calculated for each type of health coverage, but only the largest value is compared to the value from A. above for that type. The alternate risk charge is equal to twice the maximum retained risk on any single individual in a

claims year. The maximum retained risk (level of potential claim exposure) is capped at \$1,500,000 for Comprehensive Medical; \$50,000 for Medicare Supplement business and \$50,000 for dental coverage.

#### Line (1) through Line (18)

There are three lines of business used in the Life RBC formula for calculating the RBC requirement in this worksheet. Other health coverages will continue to use the factors on LR015 Health Premiums. The three lines of business are: Column (1) Comprehensive Medical and Hospital, Column (3) Medicare Supplement and Column (4) Dental & Vision. The other columns of LR016 are not to be used. Each of the three lines of business has its own column in the Underwriting Risk - Experience Fluctuation Risk table (For life RBC, Column (2) Medical Only and Column (5) Other are not used). The categories listed in the columns of this worksheet include premiums plus all risk revenue that is received from another MCO in exchange for medical services provided to such MCO's members. The descriptions of the items are described as follows:

#### Comprehensive Medical & Hospital

Includes policies providing for medical coverages including hospital, surgical, major medical, Medicare risk coverage (but NOT Medicare Supplement), and Medicaid risk coverage. This category DOES NOT include administrative services contracts (ASC) or administrative services only (ASO) contracts. These programs are reported in the Business Risk section of the formula. Neither does it include Federal Employees Health Benefit Plan (FEHBP) business which is reported on LR017 Underwriting Risk – Other Line (3). The alternative risk charge, which is twice the maximum retained risk after reinsurance on any single individual, cannot exceed \$1,500,000.

#### Medical Only (non-hospital professional services)

Include in Comprehensive Medical.

#### Medicare Supplement

This is business reported in the Medicare Supplement Insurance Experience Exhibit of the annual statement. Medicare risk business is reported under comprehensive medical and hospital.

#### Dental & Vision

These are premiums for policies providing for dental or vision only coverage issued as stand alone dental or as a rider to a medical policy which is not related to the medical policy through deductibles or out-of-pocket limits.

#### Other Health Coverages

Include in the appropriate line on page LR015 Health Premiums.

The following paragraphs explain the meaning of each line of the worksheet table for computing the experience fluctuation underwriting risk RBC.

#### Line (1) Premium

This is the amount of money charged by the insurer for the specified benefit plan. It is the earned premium, net of reinsurance. It does not include receipts under administrative services only (ASO) contracts; or administrative services contracts (ASC); or any non-risk business; or premium for the federal employees health benefit programs (FEHBP) which has a risk factor relating to incurred claims reported separately under Underwriting Risk – Other, Line (3).

NOTE: Where premiums are paid on a monthly basis they are generally fully earned at the end of the month for which coverage is provided. In cases where the mode of payment is less frequent than monthly, a portion of the premium payment will be unearned at the end of any given reporting period.

#### Line (2) Title XVIII Medicare

This is the earned amount of money charged by the insurer (net of reinsurance) for Medicare risk business where the insurer, for a fee, agrees to cover the full medical costs of Medicare subscribers.

Line (3) Title XIX Medicaid

This is the earned amount of money charged by the insurer for Medicaid risk business where the insurer, for a fee, agrees to cover the full medical costs of Medicaid subscribers.

Line (4) Other Health Risk Revenue

Earned amounts charged by the reporting company as a provider or intermediary for specified medical (e.g. full professional, dental, radiology, etc.) services provided to the policyholders or members of another insurer or managed care organization (MCO). Unlike premiums, which are collected from an employer group or individual member, risk revenue is the prepaid (usually on a capitated basis) payments, made by another insurer or MCO to the company in exchange for services to be provided or offered by such organization. Payments to providers under risk revenue arrangements are included in the RBC calculation as underwriting risk revenue and are included in the calculation of managed care credits. Exclude fee-for-service revenue received by the company from an MCO. This revenue is reported in the business risk section of the formula as Health ASO/ASC and limited risk revenue.

Line (5) Underwriting Risk Revenue

The sum of Lines (1.3) through (4).

Line (6) Net Incurred Claims

Claims incurred (paid claims + change in unpaid claims) during the reporting year (net of reinsurance) that are arranged for or provided by the insurer. Paid claims includes capitation and all other payments to providers for services to covered lives, as well as reimbursement directly to insureds (or their providers) for covered services. Paid claims also includes salaries paid to company employees that provide medical services to covered lives and related expenses. Line (6) does not include ASC payments or federal employees health benefit program (FEHBP) claims.

Column (1) claims come from Schedule H Part 5 Column 1 Line 13 less the amounts reported as incurred claims for Administrative Services Contracts (ASC) in Line (51) of LR024 Business Risk and Federal Employee Health Benefit Plan (FEHBP) in Line (3) of LR017 Underwriting Risk – Other. Note that Medicare supplement claims could be double counted if included in Column 1 of Schedule H Part 5 rather than Column 3. **Column (3) ~~claims come for~~ Medicare Supplement should be net of reinsurance, the same as the other columns. Column (3) for Medicare Supplement should use the direct claims from General Interrogatories Part 2 Line 1.5 after adjusting them for reinsurance.** Column (4) dental claims come from Schedule H Part 5 Column 2 Line 13.

Line (7) Fee-for-Service Offset

Report fee-for-service revenue that is directly related to medical expense payments. The fee-for-service line does not include revenue where there is no associated claim payment (e.g. fees or charges to non member/insured of the company where the provider of the service receives no additional compensation from the company) and when such revenue was excluded from the pricing of medical benefits.

Line (8) Underwriting Risk Incurred Claims

Line (6) minus Line (7).

Line (9) Underwriting Risk Claims Ratio

Line (8) / Line (5). If either Line (5) or Line (8) is zero or negative, Line (9) is zero.

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# LIFE INSURANCE

LR020

## *Basis of Factors*

The factors chosen represent surplus needed to provide for excess claims over expected, both from random fluctuations and from inaccurate pricing for future levels of claims. For a large number of trials, each insured either lives or dies based on a “roll of the dice” reflecting the probability of death from both normal and excess claims. The present value of the claims generated by this process, less expected claims, will be the amount of surplus needed under that trial. The factors chosen under the formula produce a level of surplus at least as much as needed in 95 percent of the trials.

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

Net amount at risk was chosen as a base because expected claims are difficult to calculate on a consistent basis from company to company.

## *Specific Instructions for Application of the Formula*

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

Line (8)	Individual & Industrial	(1)		(2)
		Statement Value	Factor	RBC Requirement
	First 500 Million		X 0.00150 =	
	Next 4,500 Million		X 0.00100 =	
	Next 20,000 Million		X 0.00075 =	
	Over 25,000 Million		X 0.00060 =	
	Total Individual and Industrial Net Amount at Risk			
<del>Line (19)</del>	<del>Group &amp; Credit</del>	<del>Statement Value</del>	<del>Factor</del>	<del>RBC Requirement</del>
<del>Line (20)</del>	<del>Group &amp; Credit</del>	<del>Statement Value</del>	<del>Factor</del>	<del>RBC Requirement</del>
	First 500 Million		X 0.00120 =	
	Next 4,500 Million		X 0.00080 =	
	Next 20,000 Million		X 0.00060 =	
	Over 25,000 Million		X 0.00050 =	
	Total Group and Credit Net Amount at Risk (less FEGLI & SGLI in force)			

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

