

Mark-up reflecting CM6-CM7 mortgage proposal (July 8, 2022)



Paul S. Graham III
SVP, Policy Development



MORTGAGE BANKERS ASSOCIATION

Mike Flood
SVP, CMF Policy & Member Engagement

July 8, 2022

Philip A. Barlow, FSA, MAAA

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

Re: Proposed revisions to CM6 and CM7 mortgage RBC factors and formula

Dear Mr. Barlow:

The Mortgage Bankers Associations (MBA)¹ and the American Council of Life Insurers (ACLI)², on behalf of our respective member insurers, respectfully submit the attached proposal to the Life Risk-Based Capital Working Group of the National Association of Insurance Commissioners (NAIC).

The proposal would harmonize the RBC factors for CM6 and CM7 mortgage with the RBC factors for Schedule A and Schedule BA real estate investments, as recently adjusted. It also would harmonize the formulas used to apply RBC factors to performing and non-performing mortgages, by eliminating the adjustments for write-downs currently included in the non-performing mortgages formula.

We look forward to working with you on this request. Please feel free to contact Mike Monahan at mikemonahan@accli.com, 202-624-2324, or Grant Carlson at gcarlson@mba.org or 202-557-2765, for any additional information.

Sincerely,

Mike Flood

Paul Graham

Attachment: CM6-CM7 proposal and mark-up

cc: Dave Fleming, NAIC Senior Insurance Reporting Analyst

¹ The **Mortgage Bankers Association (MBA)** is the national association representing the real estate finance industry, an industry that employs more than 390,000 people in virtually every community in the country. Its membership of over 2,000 companies includes all elements of real estate finance: mortgage companies, mortgage brokers, commercial banks, credit unions, thrifts, REITs, Wall Street conduits, life insurance companies, and others in the mortgage lending field. For additional information, visit MBA's website: www.mba.org.

² The **American Council of Life Insurers (ACLI)** is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States. Learn more at www.accli.com

**Capital Adequacy (E) Task Force
RBC Proposal Form**

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

		DATE: July 8, 2022	FOR NAIC USE ONLY
CONTACT PERSON:	Grant Carlson	Mike Monahan	Agenda Item # _____
TELEPHONE:	(202) 557-2765	(202) 624-2324	Year _____
EMAIL:	gcarlson@mba.org	mikemonahan@acli.com	DISPOSITION
ON BEHALF OF:	Mortgage Bankers Association	American Council of Life Insurers	<input type="checkbox"/> ADOPTED _____
NAME:	Mike Flood	Mike Monahan	<input type="checkbox"/> REJECTED _____
TITLE:	Senior Vice President, Commercial and Multifamily	Senior Director, Accounting Policy	<input type="checkbox"/> DEFERRED TO _____
AFFILIATION:	Mortgage Bankers Association	American Council of Life Insurers	<input type="checkbox"/> REFERRED TO OTHER NAIC GROUP
ADDRESS:	1919 M Street, NW Washington, DC 20036	101 Constitution Ave, NW Washington, DC 20001	<input type="checkbox"/> EXPOSED _____
			<input type="checkbox"/> OTHER (SPECIFY) _____

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

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

DESCRIPTION OF CHANGE(S)

This proposal would make the following two related changes.

1. Align the CM6 and CM7 Life RBC factors for non-performing commercial and farm mortgages with the RBC factors for Schedule A and Schedule BA investments in real estate as those factors were adjusted in 2021; and
2. Adopt the same formula for calculating RBC amounts for non-performing and performing residential, commercial and farm mortgages.

REASON OR JUSTIFICATION FOR CHANGE **

1. Revising CM6 and CM7 factors would re-align the factors for non-performing mortgages with the factors for Schedule A and Schedule BA real estate investments.

Historical alignment and the 2021 change

Prior to the 2021, the 23% factor for CM7 In Process of Foreclosure commercial and farm mortgages was perfectly aligned with the 23% factor for Schedule BA real estate assets; and the 18% factor for CM6 90-Days Delinquent commercial and farm mortgages was roughly aligned with the 15% factor for Schedule A real estate assets.

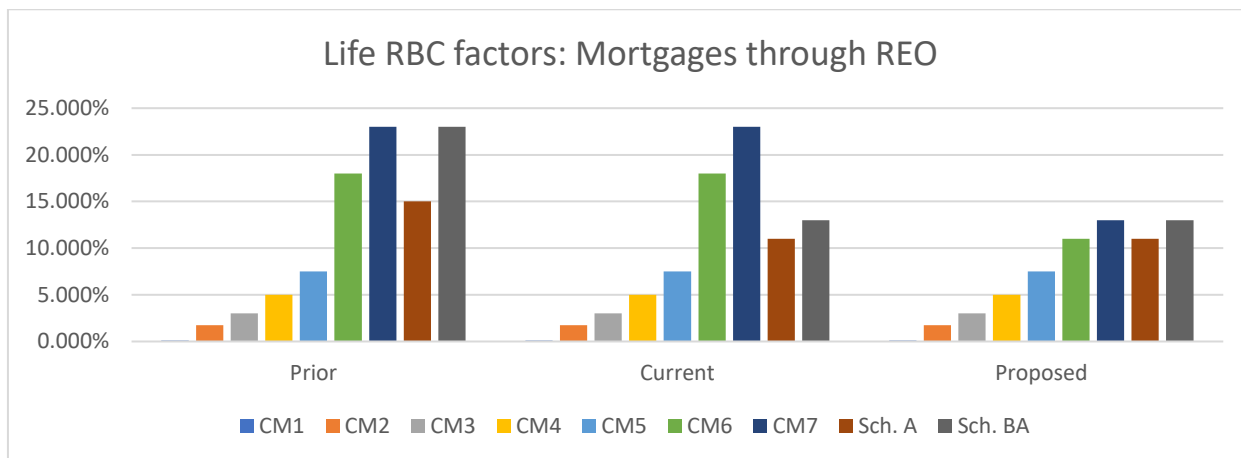
That alignment made sense as a matter of risk because the worst-case path for a non-performing mortgage loan results in the asset becoming a real estate equity investment on the insurer’s balance sheet. In 2021, however, the factor assigned to Schedule A real estate investments dropped from 15% to 11%, and the factor for Schedule BA real estate investments dropped from 23% to 13%. As a result, the 18% and 23% factors for CM6 and CM7 mortgage are no longer aligned with the factors for real estate investments.

The proposal

The proposal is to adjust the factor for CM6 mortgages from 15% to 11% and adjust the factor for CM7 mortgages from 23% to 13%. The changes necessary to implement this proposal are reflected in the attached mark-up of LR004 and LR009 RBC Reporting Instructions.

Impacts

The table below illustrates the relationships between CM6 and CM7 factors and Schedule A and Schedule BA real estate assets, historically, currently, and as proposed.



2. Adopting the same formula for calculating RBC amounts for non-performing and performing residential, commercial and farm mortgages would ensure that the effective RBC factor for non-performing residential, commercial and farm mortgages would not be less than the nominal RBC charge.

As we considered the proposal to align the factors for delinquent mortgages and for real estate investments, we also revisited the formula for computing RBC for non-performing mortgages. Based on that consideration, we concluded that there is no reasonable basis for continuing to use a different calculation formula for performing and non-performing mortgages.

The current state: non-performing mortgages

The formula for applying RBC factors to non-performing mortgages both adds in and backs out any applicable write-downs, as follows:

$$RBC_{non-perf} = [(STAT Book Value + \underline{STAT Write-downs} - STAT Invol. Reserves) \times CM 6-7 Charge] - \underline{STAT Write-downs}$$

Because this formula can result in very low and even negative RBC amounts for non-performing loans, it is supplemented by a requirement that the resulting RBC amount cannot be lower than the applicable CM1-5 charge for the mortgage if the investment was performing.

The current state: performing mortgages

The formula for applying RBC factors to performing mortgages is as follows:

$$RBC_{perf} = (STAT Book Value - STAT Invol. Reserves) \times CM 1-5 Charge$$

There is no need for a backstop to this formula because the effective RBC factor for a performing loan is always the same as the nominal RBC charge for the applicable CM category.

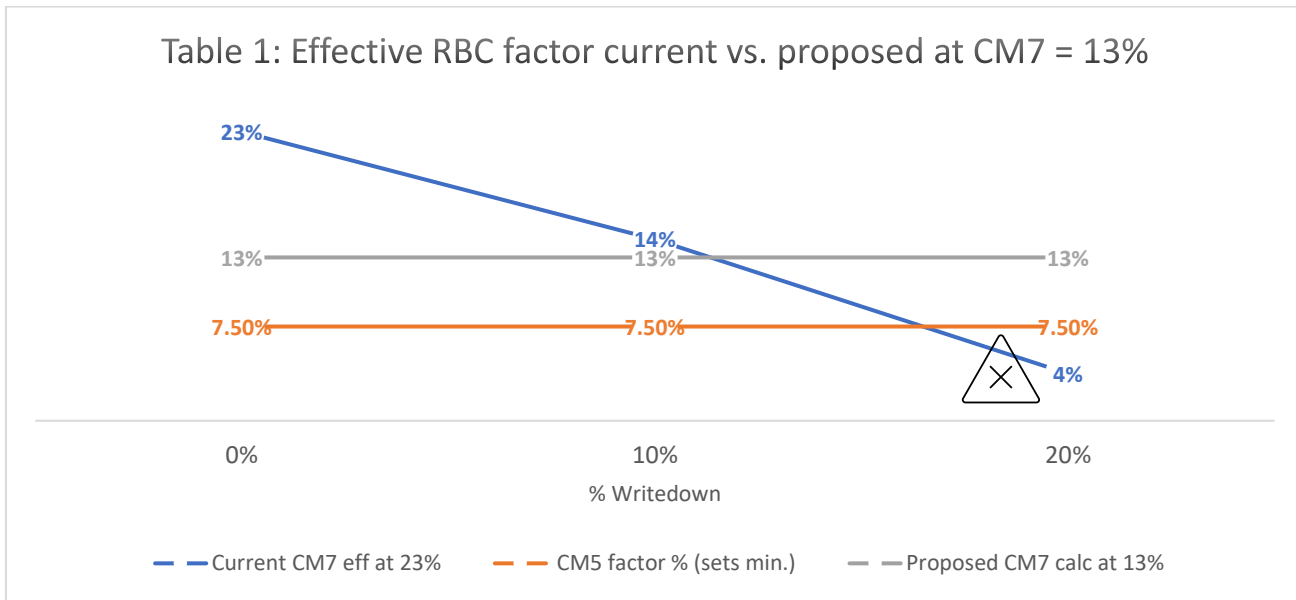
The proposal

The proposal would apply the same formula for both performing and non-performing mortgages. The changes necessary to implement this proposal are reflected in the attached mark-up of LR004 and LR009 RBC Reporting Instructions.

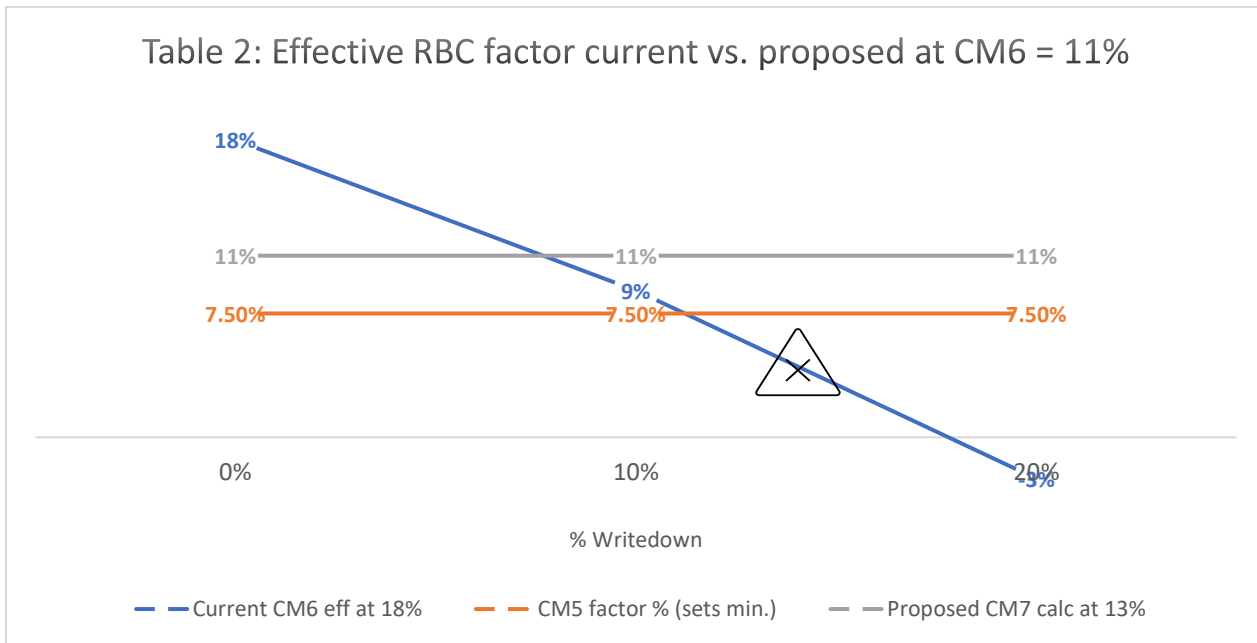
Impacts

Under the proposal, the RBC charge for some non-performing mortgages would increase and the RBC charge for other non-performing mortgages would decrease, depending on the amount of any write-downs.

In Table 1, the blue and brown lines illustrate that, for a CM7 mortgage under the current state, the effective RBC factor would range from 23% to 7.5% of the statutory book value less involuntary reserves (assuming the performing loan rating would be CM5), depending on the amount of any write-down. The green line in the table illustrates that, under the proposal, the effective RBC factor would be equal to the RBC charge for a CM7 mortgage (as adjusted in part 1 of this proposal) without regard to write-downs.



In Table 2, the blue and brown lines illustrate that, for a CM6 mortgage under the current state, the effective RBC factor would range from 18% to 7.5% of the statutory book value less involuntary reserves (assuming the performing loan rating would be CM5), depending on the amount of any write-down. The green line in the table illustrates that, under the proposal, the effective RBC factor would be equal to the RBC charge for a CM6 mortgage (as adjusted in part 1 of this proposal) without regard to write-downs.



Both tables illustrate that adopting the performing mortgage loans formula and the proposed CM6 and CM7 factors would reduce the required RBC amount for non-performing mortgages with smaller levels of write-downs but would increase required RBC amounts for non-performing mortgages with larger write-downs.

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Attachment: Suggested mark-up of Instructions LR004 and LR009.

Notes to the mark-up:

- The attached mark-up adds the previously approved instructions for reporting 2020 NOI. See [*Guidance for Troubled Debt Restructurings for December 31, 2020 and Interim Risk-Based Capital Filings \(where required\)*](#) (October 9, 2020, Revised February 11, 2021).
- The attached mark-up also reflects a suggested deletion of the version number of the CREFC Methodology for Analyzing and Reporting Property Income Statements, to avoid the ongoing need to update the Instructions to reflect each new versions of that methodology. This is not part of the proposal described above, but the Life Risk-Based Capital Working Group may want to consider it.

Additional Staff Comments:

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

Revised 2-2019

MORTGAGES LRO04

Basis of Factors

Mortgages in Good Standing

The pre-tax factors for commercial mortgages were developed based on analysis using the Commercial Mortgage Metrics model of Moody's Analytics and documented in a report from the American Council of Life Insurers on March 27, 2013. The factors provide for differing levels of risk, the levels determined by a contemporaneous debt service coverage ratio and the contemporaneous loan-to-value. The 0.14 percent pre-tax factor on insured and guaranteed mortgages represents approximately 30-60 days interest lost due to possible delay in recovery on default. The pre-tax factor of 0.68 percent for residential mortgages reflects a significantly lower risk than commercial mortgages. The pre-tax factors were developed by dividing the post-tax factor by 0.7375 (0.7375 is calculated by taking 1.0 less the result of 0.75 multiplied by 0.35). The pre-tax factors are not changing for 2018 due to tax reform.

Mortgages 90 Days Overdue, Not in Process of Foreclosure

The category pre-tax factor for commercial and farm mortgages of ~~18~~ **11** percent is based on ~~data taken from the Society of Actuaries "Commercial Mortgage Credit Risk Study."~~ **the 11 percent factor for real estate investments reported on Schedule A.** For insured and guaranteed or residential mortgages, factors are set at twice the level for those "in good standing" to reflect the increased likelihood of default losses.

Mortgages in Process of Foreclosure

The category pre-tax factor of 13 percent for M mortgages in process of foreclosure **is based on the 13 percent factor for real estate investments reported on Schedule B** ~~are considered to be as risky as NAIC 5 bonds and are assigned the same category pre-tax factor of 23 percent for commercial and farm mortgages.~~

Due and Unpaid Taxes on Overdue Mortgages and Mortgages in Foreclosure

The factor for due and unpaid taxes on overdue mortgages and mortgages in foreclosure is 100 percent.

Specific Instructions for Application of the Formula

Column (1)

Insured or guaranteed mortgages should be reported separately from residential and commercial mortgages. Insured or guaranteed loans include only those mortgage loans insured or guaranteed by the Federal Housing Administration, under the National Housing Act (Canada) or by the Veterans Administration (exclusive of any portion insured by FHA). Mortgage loans guaranteed by another company (affiliated or unaffiliated) are not to be included in the insured or guaranteed category.

Except for Lines (1) through (3), (17) through (19), (22) through (24), (26) and (27), calculations are done on an individual mortgage basis and then the summary amounts are entered in this column for each class of mortgage investment. Refer to the mortgage calculation worksheet – company developed (Figure 2) for how the individual mortgage calculations are completed for In Good Standing – Commercial mortgages on Lines (4) through (8) and for In Good Standing – Farm mortgages on Lines (10) through (14) and for Other Than In Good Standing mortgages on Lines (16), (20), (21), and (25). Line (28) should equal Page 2, Column 3, Lines 3.1 plus 3.2, plus Schedule B, Part 1 Footnotes 3 and 4, first of the two amounts in the footnotes.

Column (2)

Companies are permitted to reduce the book/adjusted carrying value of mortgage loans reported in Schedule B by any involuntary reserves. Involuntary reserves are equivalent to valuation allowances specified in SSAP No. 37 paragraph 16. These reserves are held as an offset for a particular troubled mortgage loan that would be required to be written down if the impairment was permanent.

Column (3)

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Column (3) is calculated as the net of Column (1) less Column (2).

Column (4)

No longer used. Place "XXX" in any blanks for this column.

Column (5)

For Lines (1) and (3), the pre-tax factor is equal to 0.0014

For Lines (2), the pre-tax factor is equal to 0.0068

For Lines (4) and (10), the pre-tax factor is equal to 0.0090

For Lines (5) and (11), the pre-tax factor is equal to 0.0175

For Lines (6) and (12), the pre-tax factor is equal to 0.0300

For Lines (7) and (13), the pre-tax factor is equal to 0.0500

For Lines (8) and (14), the pre-tax factor is equal to 0.0750

For Lines (16) and (20), the pre-tax factor is equal to 0.1100

For Lines (17) and (19), the pre-tax factor is equal to 0.0027

For Lines (18), the pre-tax factor is equal to 0.0140

For Lines (21) and (25), the pre-tax factor is equal to 0.1300

For Lines (22) and (24), the pre-tax factor is equal to 0.0054

For Lines (23), the pre-tax factor is equal to 0.0270

For Lines (26) and (27), the pre-tax factor is 1.0.

Column (6)

For Lines (4) through (8), (10) through (14), (16), (20), (21) and (25), summary amounts are entered for Column (6) based on calculations done on an individual mortgage basis. Refer to the mortgage calculation worksheet (Figure 2). For Lines (1) through (3), (17) through (19), (22) through (24), (26) and (27), the RBC subtotal is multiplied by the factor to calculate Column (6).

_(Figure 1)

The mortgage factors are used in conjunction with the mortgage worksheet (Figures 2) to calculate the RBC Requirement for each individual mortgage. The following factors are used for each category of mortgages:

LR004 Line Number	<u>Mortgage Factors</u>	
	<u>In Good Standing</u>	<u>Factor</u>
(1)	Residential Mortgages-Insured or Guaranteed	0.0014
(2)	Residential Mortgages-All Other	0.0068
(3)	Commercial Mortgages-Insured or Guaranteed	0.0014
(4)	Commercial Mortgages-All Other – Category CM1	0.0090
(5)	Commercial Mortgages – Category CM2	0.0175
(6)	Commercial Mortgages – Category CM3	0.0300
(7)	Commercial Mortgages – Category CM4	0.0500
(8)	Commercial Mortgages – Category CM5	0.0750
(10)	Farm Mortgages – Category CM1	0.0090
(11)	Farm Mortgages – Category CM2	0.0175
(12)	Farm Mortgages – Category CM3	0.0300
(13)	Farm Mortgages – Category CM4	0.0500
(14)	Farm Mortgages – Category CM5	0.0750
	<u>90 Days Overdue, Not in Process of Foreclosure</u>	
(16)	Farm Mortgages – Category CM6	0.1100
(17)	Residential Mortgages-Insured or Guaranteed	0.0027
(18)	Residential Mortgages-All Other	0.0140
(19)	Commercial Mortgages-Insured or Guaranteed	0.0027
(20)	Commercial Mortgages-All Other – Category CM6	0.1100
	<u>In Process of Foreclosure</u>	
(21)	Farm Mortgages – Category CM7	0.1300
(22)	Residential Mortgages-Insured or Guaranteed	0.0054
(23)	Residential Mortgages-All Other	0.0270
(24)	Commercial Mortgages-Insured or Guaranteed	0.0054
(25)	Commercial Mortgages-All Other – Category CM7	0.1300

(Figure 2)

Mortgage Worksheet (company developed)
Commercial Mortgages and Farm Mortgages

Price Index current (year-end calculations to be based off of 3 rd Quarter index of the given year}}	{input Price Index as of September 30}					

Mark-up reflecting CM6-CM7 mortgage proposal (July 8, 2022)

Name / ID (1)	Date of Origination (2)	Maturity Date (3)	Property Type (4)	Farm Loan Sub-property type (5)	Postal Code (6)	Book / Adjusted Carrying Value (7)

Original Loan Balance (10)	Principal Loan Balance to Company (11)	Balloon Payment at Maturity (12)	Principal Balance Total (13)	NOI Second Prior Year (14)	NOI Prior Year (15)	NOI (16)	Interest Rate (17)

Trailing 12 Month Debt Service (18)	Original Property Value (19)	Property Value (20)	Year of Valuation (21)	Calendar Quarter of Valuation (22)	Credit Enhancement? (23)	Se (24)

Construction Loan out of Balance? (26)	Construction Loan Issues? (27)	Land Loan? (28)	90 Days Past Due? (29)	In Process of Foreclosure? (30)	Current payment lower than based on Loan Interest? (31)	Is flo (32)

Is negative amortization allowed? (34)	Amortization Type (35)	Rolling Average NOI (36)	RBC Debt Service (37)	RBC DCR (38)	Price Index at Valuation (39)	Contemporaneous Property Value (40)

The Company should develop this worksheet on a loan-by-loan basis for each commercial mortgage – other or farm loan Schedule B. This worksheet columns (7) and (9) subtotals for each category are to be carried over and entered in Column (LR004) in the risk-based capital formula lines (4) – (8), (10) – (14), (16), (20), (21), and (25). Small mortgages aggregated be treated as one mortgage on this worksheet. NOTE: This worksheet will not be available in the risk-based capital filing s developed by the company.

Column			Description / explanation of item
#	Heading		
			Price Index current is the value on 9/30 of the current year for the National Investor Fiduciaries Price Index for the United States.
(1)	Name / ID	Input	Identify each mortgage included as in good standing.
(2)	Date of Origination	Input	Enter the year and month that the loan was originated. If the loan has otherwise re-written, enter that new date.
(3)	Maturity Date	Input	Enter earlier of maturity of the loan, or the date the lender can call the
(4)	Property Type	Input	Enter 1 for mortgages with an Office, Industrial, Retail or multifamily property Enter 2 for mortgages with a Hotel and Specialty Commercial as proper multiple use, use the property type with the greatest square footage in Enter 3 for Farm Loans.
(5)	Farm Sub-type	Input	If Property Type=3 (Farm Loans), then you must enter a Sub Category: 3=Agribusiness Single Purpose, 4=Agribusiness All Other (See Note 8.)

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(6)	Postal Code	Input	Enter zip code of property for US. If multiple properties or zip codes, enter address, use postal code. If not available, N/A.
(7)	Book / Adjusted Carrying Value	Input	Enter the value that the loan is carried at on the company ledger.
(8)	Statutory Write-downs	Input	Enter the value of any write-downs taken on this loan due to permanent impairment.
(9)	Involuntary Reserve	Input	Enter the amount of any involuntary reserve amount. Involuntary reserves are an offset to a particular asset that is clearly a troubled asset and are included in the Annual Statement.
(10)	Original Loan Balance?	Input	Enter the loan balance at the time of origination of the loan.
(11)	Principal Balance to Co.	Input	Enter the value of the loan balance owed by the borrower.
(12)	Balloon Payment at Maturity	Input	Enter the amount of any balloon or principal payment due at maturity.
(13)	Principal Balance Total	Input	Enter the total amount of mortgage outstanding including debt that is secured by the company's mortgage (Note 2)
(14)	NOI Second Prior	Input	Enter the NOI from the year prior to the value in (15). See Note 1.
(15)	NOI Prior	Input	Enter the NOI from the prior year to the value in (16). See Note 1.
(16)	NOI	Input	Enter the Net Operating Income for the most recent 12 month fiscal period ending June 30 of the year prior to this report and June 30 of the year of this report. Follow the guidance of the Commercial Real Estate Finance Council Section VII. See Notes 1, 3, 4, 5, and 6 below.
(17)	Interest Rate	Input	Enter the annual interest rate at which the loan is accruing. <ul style="list-style-type: none"> - If the rate is floating, enter the larger of the current month rate or the prior 12 months, or - If the rate is fixed by the contract, not level over the year, but level over the current rate. If the 'Total Loan Balance' consists of multiple loans, use an average loan principal balance.
(18)	Trailing 12 Month Debt Service	Input	Enter actual 12 months debt service for prior 12 months
(19)	Original Property Value	Input	Enter the Property Value at the time of origination of the loan. (Note 9)
(20)	Property Value	Input	Property Value is the value of the Property at time of loan origination, or at time of impairment underwriting, restructure, extension, or other re-writing. (Note 9)
(21)	Year of Valuation	Input	Year of the valuation date defining the value in (20). This will be either the year of restructure, refinance, or other event which precipitates a new valuation date.
(22)	Quarter of Valuation	Input	Calendar quarter of the valuation date defining the value in (20).
(23)	Credit Enhancement	Input	Enter the full dollar amount of any credit enhancement. (see Note 5)
(24)	Senior Debt?	Input	Enter yes if senior position, no if not. (see Note 7.)
(25)	Construction Loan?	Input	Enter 'Yes' if this is a construction loan. (see Note 4.)
(26)	Construction - not in balance?	Input	Enter 'Yes' if this is a construction loan that is not in balance. (see Note 4)
(27)	Construction - Issues?	Input	Enter 'Yes' if this is a construction loan with issues. (see Note 4)
(28)	Land Loan?	Input	Enter 'Yes' if this is a loan on non-income producing land. (see Note 6)

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(29)	90 days past due?	Input	Enter 'Yes' if payments are 90 days past due.
(30)	In process of foreclosure?	Input	Enter 'Yes' if the loan is in process of foreclosure.
(31)	Is current payment lower than a payment based on the loan interest?	Input	Yes / No
(32)	Is loan interest a floating rate?	Input	Yes / No
(33)	If not floating, does loan reset during term?	Input	Yes / No - Some fixed rate loans define in the loan document a change of rate, which may be a pre-determined rate or may be the then current market rate. Some changes are less frequent than annual.
(34)	Is negative amortization allowed?	Input	Yes / No
(35)	Amortization type?	Input	1 = fully amortizing 2 = amortizing with balloon 3 = full I/O 4 = partial I/O, then amortizing
(36)	Rolling Average NOI	Computation	For 2013 - 100% of NOI For 2014 - 65% NOI + 35% NOI Prior For 2015 - 50% NOI + 30% NOI Prior + 20% NOI 2 nd Prior For loans originated or valued within the current year, use 100% NOI. For loans originated 2013 or later and within 2 years, use 65% NOI and 35% NOI Prior.
(37)	RBC Debt Service	Computation	This amount is the amount of 12 monthly principal and interest payments divided by the Loan Balance (13) using a Standardized Amortization period of 300 months and the Rate (17).
(38)	RBC DCR	Computation	This is the ratio of the Net Operating Income (36) divided by the RBC Debt Service (37) rounded to 2 decimal places. See Note 3 below for special circumstances.
(39)	NCREIF Price Index at Valuation	Computation	The value of the NCREIF Price Index on the last day of the calendar quarter ending in (21) and (22).
(40)	Contemporaneous Property Value	Computation	The Property Value (20) times the ratio (rounded to 4 decimal places) of the NCREIF Price Index at valuation (39) to the Property Value (20).
(41)	RBC LTV	Computation	The Total Loan Value (13) divided by the Contemporaneous Value (40).
(42)	CM Category	Computation	The risk category determined by either being not in good standing (either in process of Foreclosure) or the loan being in good standing or restructured and analyzed based on the RBC LTV (41) to the criteria in Figure (3), Figure (4) or Figure (5). See Notes 2, 3 and 4 for special circumstances.

Note 1: Net Operating Income (NOI): The majority of commercial mortgage loans require the borrower to provide the lender with at least annual financial statements. The NOI would be determined at the RBC calculation date based on the most recent annual period from financial statements provided by the borrower and analyzed based on accepted industry standards. The most recent annual period is determined as follows:

- If the borrower reports on a calendar year basis, the statements for the calendar year ending December 31 of the year prior to the RBC calculation date will be used. For example, if the RBC calculation date is 12/31/2012, the most recent annual period is the calendar year that ends 12/31/2011.
- If the borrower reports on a fiscal year basis, the statements for the fiscal year that ends after June 30 of the prior calendar year and no later than June 30 of the year of the RBC calculation date will be used. For example, if the RBC calculation date is 12/31/2012, the most recent annual period is the fiscal year that ends after 6/30/2011 and no later than 6/30/2012.

- The foregoing time periods are used to provide sufficient time for the borrower to prepare the financial statements and provide them to the lender, and for the lender to calculate the NOI.

The accepted industry standards for determining NOI were developed by the Commercial Mortgage Standards Association now known as CRE Financial Council (CREFC). The company must develop the NOI using the standards provided by the CREFC Methodology for Analyzing and Reporting Property Income Statements. (www.crefc.org/irp). These standards are part of the CREFC Investor Reporting Package (CREFC IRP Section VII.) developed to support consistent reporting for commercial real estate loans owned by third party investors. This guidance would be a standardized basis for determining NOI for RBC.

The NOI will be adjusted to use a 3 year rolling average for the DSC calculation. For 2013, a single year of NOI will be used. For 2014, 2 years will be used, weighted 65% most recent year and 35% prior year. Thereafter, 3 years will be used weighted 50% most recent year, 30% prior year, and 20% 2nd prior year. This will apply when there is a history of NOI values. For new originations, including refinancing, the above schedule would apply by duration from origination. For the special circumstances listed below, the specific instructions below will produce the NOI to be used, without further averaging.

For purposes of the NOI inputs at (14), (15), (16), and the computation of a Rolling Average NOI at (36), an insurer may report 2020 NOI (i.e., NOI for any 12-month fiscal period ending after June 30, 2020 but not later than June 30, 2021) as the greater of: (1) actual NOI as determined under the CREF-C IRP Standards or (2) 85% of NOI determined for the immediate preceding fiscal year's annual report. This guidance with respect to 2020 NOI applies to the application of the 2020 NOI in risk-based capital reporting for 2021, 2022, and 2023. In cases where an insurer reports 85% of 2019 NOI as the 2020 NOI input, the insurer should retain information about actual 2020 NOI in its workpapers so that the information can be readily available to regulators.

Note 2: The calculation of debt service coverage and loan to value will include all debt secured by the property that is (1) senior to or pari passu with the insurer's investment; and (2) any debt subordinate to the insurer's investment that is not (a) subject to an intercreditor, standstill or subordination agreement with the insurer provided that the agreement does not grant the subordinate debt holder any rights that would materially affect the rights of the insurer and provided that the subordinate debt holder is prohibited from taking any action against the borrower that would materially affect the insurer's priority lien position with respect to the property without the prior written consent of the insurer, or (b) subject to governing laws that provide that the insurer's investment holds a senior position to the subordinated debt holder and provide substantially similar protections to the insurer as in (2)(a) above.

Note 3: *Unavailable Operating Statements*

There are a variety of situations where the most recent annual period's operating statement may not be available to assist in determining NOI. These situations will occur in distinct categories and each category requires special consideration. The categories are:

1. Loans on owner occupied properties

- a. For properties where the owner is the sole or primary tenant (50% or more of the rentable space), property level operating statements may not be available or meaningful. If the property is occupied and the loan, taxes and insurance are current, it will be acceptable to derive income and a reasonable estimate of expenses from the most recent appraisal or equivalent and additional known actual expenses (e.g., real estate taxes and insurance).
- b. For properties where the owner is a minority tenant (49% or less of the rentable space), the owner-occupied space should be underwritten at the average rent per square foot of the arm's length tenant leases. This income estimate should be added to the other tenant leases and combined with a reasonable estimate of expenses based on the most recent appraisal or equivalent and additional known actual expenses (e.g., real estate taxes and insurance).

2. Borrower does not provide the annual operating statement

Mark-up reflecting CM6-CM7 mortgage proposal (July 8, 2022)

- a. Borrower refuses to provide the annual operating statements
 - i. If the leases are in place and evidenced by estoppels and inspections, NOI would be derived from normalized underwriting in accordance with the CREFC Methodology for Analyzing and Reporting Property Income Statements.
 - ii. If there is evidence from inspection that the property is occupied, but there is no evidence of in place leases (e.g., lease documents or estoppels), NOI would be set equal to the lesser of calculated debt service (DSC=1.0) or the NOI from the normalized underwriting.
 - iii. If there is no evidence from inspection that the property is occupied and no evidence of in place leases (e.g., lease documents or estoppels), assume NOI = \$0.
- b. If the borrower does not have access to a complete previous year operating statement, determine NOI based on the CREFC guidelines for analyzing a partial year income statement.

Note 4: Construction loans:

Construction loans would be categorized as follows, based on a determination by the loan servicer whether the loan is in balance and whether construction issues exist:

- | | |
|--|------------------------------------|
| a. In balance, no construction issues: | DSC = 1.0, LTV determined as usual |
| b. Not in Balance, no construction issues: | CM4 |
| c. Construction issues: | CM5 |

A loan is “*in balance*” if the committed amount of the construction loan plus any lender held reserves and unfunded borrower equity is sufficient to cover the remaining costs of the development project, including debt service not anticipated to be paid from property operations.

A “*construction issue*” is a problem that may reasonably jeopardize the completion of the project. Examples of construction issues include the abandonment of construction and construction defects that are not being addressed.

Note 5: Credit enhancements: Where the loan payments are secured by a letter of credit from an investment grade financial institution or an escrow account held at an investment grade financial institution, NOI less than the debt service may be increased by these amounts until it is equal to but not exceeding the debt service. These situations are typically short term in nature and are intended to bridge the lease-up following renovation or loss of a major tenant.

Note 6: Non-income-producing land: NOI = \$0

Note 7: Non-senior financing:

- a. The company should first calculate DSC and LTV for non-senior financing using the standardized debt service and aggregate LTV of all financing pari passu and senior to the position held by the company.
- b. The non-senior piece should then be assigned to the next riskier RBC category. For example, if the DSC and LTV metrics determined in (a) indicate a category of CM2, the non-senior piece would be assigned to category CM3. However, it would not be required to assign a riskier category than CM5 if the loan is not at least 90-days delinquent or in foreclosure.

Note 8: Definitions of each type of Farm Mortgage:

Timber: A loan is classified as a timber loan if more than 50% of the collateral market value (land and timber) of the security is attributable to land supporting a timber crop that is or will be of commercial value.

Farm & Ranch: Farm and ranch land utilized in the production of agricultural commodities of all kinds, including grains, cotton, sugar, nuts, fruits, vegetables, forage crops and livestock of all kinds, including, beef, swine, poultry, fowl and fish. Loans included in this category are those in which agricultural land accounts for more than 50% of total collateral market value.

Agribusiness Single Purpose: Specialized collateral utilized in the production, further processing, adding value or manufacturing of an agricultural commodity or forest product. In order for a loan to be classified as such, the market value of the single-purpose (special use) collateral would account for more than 50% of total collateral market value.

This collateral is generally not multi-functional and can only be used for a specific production, manufacturing and/or processing function within a specific sub-sector of the food or agribusiness industry and whereby such assets are not strategically important in nature to the overall industry capacity. These assets can be shut down or replicated easily in other locations, or existing plants can be expanded to absorb shuttered capacity. The assets are not generally limited in nature by environmental or operational permits and/or regulatory requirements. An example would be a poultry processing plant located in the Southeast of the United States where there is excess capacity inherent to the industry and production capacity is easily replaceable.

Other loans included in this category are those collateralized by single purpose (special use) confinement livestock production facilities in which the special use facilities account for more than 50% of total collateral market value.

Agribusiness All Other: Multiple-use collateral utilized in the production, further processing, adding value or manufacturing of an agricultural commodity or forest product. In order for a loan to be classified as such, the market value of any single use portion may not be greater than 50% of total collateral market value.

This collateral is multi-functional in nature, adaptable to other manufacturing, processing, or servicing food or agribusiness industries or sub-industries. Assets could also be very strategic in nature and not easily replaceable either due to cost, location, environmental permitting and/or government regulations. These assets may be single purpose in nature, but so vital to the industry capacity needs that they will be generally purchased by another like processing company or strategic or financial buyer. An example of these types of assets are strategically located and highly automated cold storage facilities whereby they can be used for dry storage, distribution centers or converted into warehouse or other type uses. Another example may be a cheese processing plant that is strategically located within the heart of the dairy industry, limited permits, environmental restrictions that would limit added capacity, or high barriers to entry to build a like facility within the industry. For example, one of the largest cheese plants in the industry is located in California and it is not easily replicated within the cheese processing industry due to its location, capacity, costs, access to fluid milk supply and related feed and water, as well as highly regulated environmental and government restrictions.

Other loans included in this category are those in which more than 50% of the collateral market value is accounted for by chattel assets or other assets related to the business and financial operations of agribusinesses, including inventories, accounts, trade receivables, cash and brokerage accounts, machinery, equipment, livestock and other assets utilized for or generated by agribusiness operations.

Note 9. The origination value is developed during the underwriting process using appropriate appraisal standards.

- a. If values were received from a qualified third-party appraiser, those values must be used.
- b. If the company performs internal valuations using standards comparable to an external appraisal, then the internal valuation may be used.

(Figure 3)

Mark-up reflecting CM6-CM7 mortgage proposal (July 8, 2022)

For Office, Industrial, Retail and Multi-family:

RISK CATEGORY	DSC LIMITS		LTV LIMITS
CM1	1.50 ≤ DSC	and	LTV < 85%
CM2	0.95 ≤ DSC < 1.50	and	LTV < 75%
CM2	1.15 ≤ DSC < 1.50	and	75% ≤ LTV < 100%
CM2	1.50 ≤ DSC	and	85% ≤ LTV < 100%
CM2	1.75 ≤ DSC	and	100% ≤ LTV
CM3	DSC < 0.95	and	LTV < 85%
CM3	0.95 ≤ DSC < 1.15	and	75% ≤ LTV < 100%
CM3	1.15 ≤ DSC < 1.75	and	100% ≤ LTV
CM4	DSC < 0.95	and	85% ≤ LTV < 105%
CM4	0.95 ≤ DSC < 1.15	and	100% ≤ LTV
CM5	DSC < 0.95	and	105% ≤ LTV
CM6	Loans 90 days past due but not yet in process of foreclosure		
CM7	Loans in process of foreclosure		

(Figure 4)

For Hotels and Specialty Commercial:

RISK CATEGORY	DSC LIMITS		LTV LIMITS
CM1	1.85 ≤ DSC	and	LTV < 60%
CM2	1.45 ≤ DSC < 1.85	and	LTV < 70%
CM2	1.85 ≤ DSC	and	60% ≤ LTV < 115%
CM3	0.90 ≤ DSC < 1.45	and	≤ LTV < 80%
CM3	1.45 ≤ DSC < 1.85	and	70% ≤ LTV
CM3	1.85 ≤ DSC	and	115% ≤ LTV
CM4	DSC < 0.90	and	LTV < 90%
CM4	0.90 ≤ DSC < 1.10	and	80% ≤ LTV < 90%
CM4	1.10 ≤ DSC < 1.45	and	80% ≤ LTV
CM5	1.10 ≤ DSC	and	90% ≤ LTV
CM6	Loans 90 days past due but not yet in process of foreclosure		
CM7	Loans in process of foreclosure		

(Figure 5)

Farm Mortgages (Agricultural Loans):

	Timber	Farm & Ranch	Agribusiness Single Purpose	
CM1	LTV ≤ 55%	LTV ≤ 60%		
CM2	55% < LTV ≤ 65%	60% < LTV ≤ 70%	LTV ≤ 60%	60%
CM3	65% < LTV ≤ 85%	70% < LTV ≤ 90%	60% < LTV ≤ 70%	70%
CM4	85% < LTV ≤ 105%	90% < LTV ≤ 110%	70% < LTV ≤ 90%	90%
CM5	105% < LTV	110% < LTV	90% < LTV	110%
CM6	Loans 90 days past due but not yet in process of foreclosure			
CM7	Loans in process of foreclosure			

SCHEDULE BA MORTGAGES LR009

Basis of Factors

For Affiliated Mortgages, Line **12999999**, the factors used are the same as for commercial mortgages and are defined in Figure 9. Risk categories and factors are determined using a company generated worksheet (Figure 10).

For Unaffiliated Mortgages, Line **11999999**, the factors used are the same as for commercial mortgages and are defined in Figure 9. Risk categories and factors are determined as follows:

- 1) For Investments that contain covenants whereby factors of maximum LTV and minimum DSC, or equivalent thresholds must be complied with and it can be determined that the Investments are in compliance, these investments would use the process for directly held mortgages using the maximum LTV and minimum DSC using the company generated worksheet and transferred to LR009 line (2) for mortgages with covenants that are in compliance.
- 2) Investments that are defeased with government securities will be assigned to CM1 and transferred to LR009 line (3).
- 3) Other investments comprised primarily of senior debt will be assigned to CM2 and transferred to LR009 line (4).
- 4) All other investments in this category will be assigned CM3 and transferred to LR009 line (5). This would include assets such as a mortgage fund that invests in mezzanine or sub debt, or investments that cannot be determined to be in compliance with the covenants.

Specific Instructions for Application of the Formula

Column (1)

Except for Lines (1), (12), and (16), calculations are done on an individual mortgage basis and then the summary amounts are entered in this column for each class of mortgage investment. Refer to the Schedule BA mortgage calculation worksheet (Figure 10) for how the individual mortgage calculations are completed. Line (20) should equal Schedule BA Part 1, Column 12, Line **11999999** plus Line **12999999**.

Column (2)

Companies are permitted to reduce the book/adjusted carrying value of mortgage loans reported in Schedule BA by any involuntary reserves. Involuntary reserves are equivalent to valuation allowances specified in the codification of statutory accounting principles. They are non-AVR reserves reported on Annual Statement Page 3, Line 25. These reserves are held as an offset for a particular troubled Schedule BA mortgage loan that would be required to be written down if the impairment was permanent.

Column (3)

Column (3) is calculated as the net of Column (1) less Column (2).

Column (4)

No longer used. Place "XXX" in any blanks for this column.

Column (5)

For Line (1), the pre-tax factor is 0.0014.

For Line (2), the average factor column is calculated as Column (6) divided by Column (3).

For Line (3), the pre-tax factor is 0.0090.

For Line (4), the pre-tax factor is 0.0175.

For Line (5), the pre-tax factor is 0.0300.

For Line (6), the pre-tax factor is 0.0090.

For Line (7), the pre-tax factor is 0.0175.

For Line (8), the pre-tax factor is 0.0300.

For Line (9), the pre-tax factor is 0.0500.

For Line (10), the pre-tax factor is 0.0750.
 For Line (12), the pre-tax factor is 0.0027.
 For Lines (13) through (14), the pre-tax factor is 0.1100.
 For Line (15), the pre-tax factor is 0.0054.
 For Lines (13) through (14), the pre-tax factor is 0.1300.

Column (6)

For Lines (1), (3) through (10), (12) through (14), and (16) through (18), the RBC subtotal in Column (3) is multiplied by the average factor to calculate Column (6). The categories and subtotals will be determined in the company developed worksheet Figure (10).

For Line (2), summary amounts are entered for Column (6) based on calculations done on an individual mortgage basis as determined in the company developed worksheet Figure (10)..

(Figure 9)

The mortgage factors are used in conjunction with the mortgage worksheet (Figure 10) to calculate the RBC Requirement for each individual mortgage in an affiliated structure and in an unaffiliated structure where there are covenants. Residential Mortgages and Commercial Mortgages Insured or Guaranteed are classified as Category CM1. The following factors are used for each category of mortgages:

Schedule BA Mortgage Factors			
LRO09 Line Number		Factor	
(3)	Unaffiliated – defeased with government securities	0.0090	
(4)	Unaffiliated investments comprised primarily of Senior Debt	0.0175	
(5)	Unaffiliated – all other unaffiliated mortgages	0.0300	
(6)	Affiliated Mortgages and Unaffiliated Mortgages with Covenants – Category CM1	0.0090	
(7)	Affiliated Mortgages and Unaffiliated Mortgages with Covenants – Category CM2	0.0175	
(8)	Affiliated Mortgages and Unaffiliated Mortgages with Covenants – Category CM3	0.0300	
(9)	Affiliated Mortgages and Unaffiliated Mortgages with Covenants – Category CM4	0.0500	
(10)	Affiliated Mortgages and Unaffiliated Mortgages with Covenants – Category CM5	0.0750	
(12)	90 Days Past Due - Insured or Guaranteed	0.0027	
(13)	90 Days Past Due (CM6)- Unaffiliated with Covenants	0.1100	

(14)	90 Days Past Due (CM 6)- Affiliated	0.1100	
(16)	In Process of Foreclosure - Insured or Guaranteed	0.0054	
(17)	In Process of Foreclosure (CM7)- Unaffiliated with Covenants	0.1300	
(18)	In Process of Foreclosure (CM7)- Affiliated	0.1300	

(Figure 10)

Mortgage Worksheet (company developed)
 -Commercial Mortgages and Farm Mortgages

Price Index current (year-end calculations to be based off of 3 rd Quarter index of the given year)}	{input Price Index as of September 30}					
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Name / ID (1)	Date of Origination (2)	Maturity Date (3)	Property Type (4)	Farm Loan Sub-property Type (5)	Postal Code (6)	Book/Adj Carrying V (7)
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Original Loan Balance (10)	Principal Loan Balance to Company (11)	Balloon Payment at Maturity (12)	Principal Balance Total (13)	NOI Second Prior Year (14)	NOI Prior Year (15)	NOI (16)	Interest Rate (17)
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Trailing 12 Month Debt Service (18)	Original Property Value (19)	Property Value (20)	Year of Valuation (21)	Calendar Quarter of Valuation (22)	Credit Enhancement? (23)
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Construction Loan out of Balance (26)	Construction Loan Issues (27)	Land Loan (28)	90 Days Past Due (29)	In Process of Foreclosure? (30)	Current payment lower than based on Loan Interest? (31)
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Is negative amortization allowed? (34)	Amortization Type (35)	Schedule BA mortgage? (36)	Affiliated Mortgage (37)	Covenant - Max LTV (39)	Covenant - Min DCR (40)
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Primarily Senior positions? (43)	Rolling Average NOI (44)	RBC DCR (45)	Price Index at Valuation (46)	Contemporaneous Property Value (47)	RBC - Loan to Value Ratio (48)

This worksheet is prepared on a loan-by-loan basis for each commercial mortgage – other or farm loan held in Schedule BA. For each category are carried over and entered in Columns (1) and (2) of the Mortgages (LR009) in the risk-based capital calculation and (17) – (18). Small mortgages aggregated into one line on Schedule BA can be treated as one mortgage on this worksheet. This worksheet will be available in the risk-based capital filing software and must be developed by the Company.

<u>Column</u>			<u>Description / Explanation of Item</u>
<u>#</u>	<u>Heading</u>		
			Price Index current is the value on 9/30 of the current year for the National Investor Fiduciaries Price Index for the United States.
(1)	Name / ID	Input	Identify each mortgage included as in good standing.
(2)	Date of Origination	Input	Enter the year and month that the loan was originated. If the loan has been otherwise re-written, enter that new date.
(3)	Maturity Date	Input	Enter earlier of maturity of the loan, or the date the lender can call the loan.
(4)	Property Type	Input	Enter 1 for mortgages with an Office, Industrial, Retail or multifamily property. Enter 2 for mortgages with a Hotel and Specialty Commercial as property. For multiple use, use the property type with the greatest square footage in the building. Enter 3 for Farm Loans.
(5)	Farm Sub-type	Input	Sub-category – If Property Type=3 (Farm Loans), then you must enter 1=Agribusiness Single Purpose and Ranch, 3=Agribusiness Single Purpose, 4=Agribusiness All Other.
(6)	Postal Code	Input	Enter zip code of property for US properties. If multiple properties or properties outside the US, enter postal code. If not available, N/A.
(7)	Book / Adjusted Carrying Value	Input	Enter the value that the loan is carried at on the company ledger.
(8)	Statutory Writedowns	Input	Enter the value of any writedowns taken on this loan due to permanent impairment.
(9)	Involuntary Reserve	Input	Enter the amount of any involuntary reserve amount. Involuntary reserves are an offset to a particular asset that is clearly a troubled asset and are reported on the Annual Statement.
(10)	Original Loan Balance?	Input	Enter the loan balance at the time of origination of the loan.
(11)	Principal Balance to Co.	Input	Enter the value of the loan balance owed by the borrower.
(12)	Balloon Payment at Maturity	Input	Enter the amount of any balloon or principal payment due at maturity.
(13)	Principal Balance Total	Input	Enter the total amount of mortgage outstanding that is senior to or pari passu with this mortgage.
(14)	NOI Second Prior	Input	Enter the NOI from the year prior to the value in (15). See Note 1.
(15)	NOI Prior	Input	Enter the NOI from the prior year to the value in (16). See Note 1.

(16)	NOI	Input	Enter the Net Operating Income for the most recent 12 month fiscal period ending June 30 of the year prior to this report and June 30 of the year of this report following the guidance of the Commercial Real Estate Finance Council, Section VII. See Notes 1, 2, 3, 4, 5 and 6 below.
(17)	Interest Rate	Input	Enter the annual interest rate at which the loan is accruing. <ul style="list-style-type: none"> - If the rate is floating, enter the larger of the current month rate or the prior 12 months, or - If the rate is fixed by the contract, not level over the year, but not the current rate. If the 'Total Loan Balance' consists of multiple loans, use an average principal balance.
(18)	Trailing 12 Month Debt Service	Input	Enter actual 12 months debt service for prior 12 months.
(19)	Original Property Value	Input	Enter the loan balance at the time of origination of the loan.
(20)	Property Value	Input	The value of the Property at time of loan origination, or at time of revaluation, underwriting, restructure, extension, or other re-writing.
(21)	Year of Valuation	Input	Year of the valuation date defining the value in (20). This will be either the year of restructure, refinance, or other event which precipitates a new valuation.
(22)	Quarter of Valuation	Input	Calendar quarter of the valuation date defining the value in (20).
(23)	Credit Enhancement	Input	Enter the full dollar amount of any credit enhancement. (see Note 5)
(24)	Senior Loan?	Input	Enter 'Yes' if senior position, 'No' if not. (see Note 7)
(25)	Construction Loan?	Input	Enter 'Yes' if this is a construction loan. (see Note 4)
(26)	Construction - not in balance	Input	Enter 'Yes' if this is a construction loan that is not in balance. (see Note 4)
(27)	Construction - Issues	Input	Enter 'Yes' if this is a construction loan with issues. (see Note 4)
(28)	Land Loan?	Input	Enter 'Yes' if this is a loan on non-income producing land. (see Note 4)
(29)	90 days past due?	Input	Enter 'Yes' if payments are 90 days past due.
(30)	In process of foreclosure?	Input	Enter 'Yes' if the loan is in process of foreclosure.
(31)	Is current payment lower than a payment based on the Loan Interest?	Input	Yes / No
(32)	Is loan interest a floating rate?	Input	Yes / No
(33)	If not floating, does loan reset during term?	Input	Yes / No - Some fixed rate loans define in the loan document a change in rate, which may be a predetermined rate or may be the then current rate. Changes are less frequent than annual.
(34)	Is negative amortization allowed?	Input	Yes / No
(35)	Amortization type?	Input	1 = fully amortizing 2 = amortizing with balloon 3 = full I/O 4 = partial I/O, then amortizing

(36))	Schedule BA mortgage?	Input	Yes / No
(37))	Affiliated Mortgage?	Input	Yes / No
(38))	Covenant Max LTV	Input	For mortgage investments with covenants, what is the maximum LTV
(39))	Covenant Min DCR	Input	For mortgage investments with covenants, what is the minimum DCR
(40))	Covenants in compliance?	Input	Yes / No - for mortgage investments with covenants, is the investment in compliance with the covenants?
(41))	Defeased with government securities	Input	Yes / No - has the mortgage loan been defeased using government securities?
(42))	Primarily Senior Mortgages	Input	Is the mortgage pool primarily senior mortgage instruments? {If yes, use 100% NOI}
(43))	Rolling Average NOI	Computation	For 2012 - 100% of NOI For 2014 - 65% NOI + 35% NOI Prior For 2015 - 50% NOI + 30% NOI Prior + 20% NOI 2 nd Prior For loans originated or valued within the current year, use 100% NOI. For loans originated 2012 or later and within 2 years, use 65% NOI and 35% NOI Prior.
(44))	RBC Debt Service	Computation	RBC Debt Service Amount is the amount of 12 monthly principal and interest payments to amortize the Total Loan Balance (13) using a Standardized Amortization Rate (17).
(45))	RBC - DCR	Computation	Debt Coverage Ratio is the ratio of the Net Operating Income (43) divided by the RBC Debt Service (44) rounded down to 2 decimal places. See Note 3 below for special circumstances. If there are special circumstances, this will be the minimum DCR by covenant.
(46))	NCREIF Index at Valuation	Computation	Price index is the value of the NCREIF Price Index on the last day of the month defined in (21) and (22).
(47))	Contemporaneous Property Value	Computation	Contemporaneous Value is the Property Value (11) times the ratio (roll up) of the Price Index current to the Price Index (46).
(48))	RBC - LTV	Computation	The Loan to Value ratio is the Loan Value (13) divided by the Contemporaneous Value (47) nearest percent. For Loan Pools with covenants, this will be the max LTV by covenant.
(49))	CM Category	Computation	Commercial Mortgage Risk category is the risk category determined by the loan status (either 90 Days Past Due or In Process of Foreclosure) or the loan being in foreclosure and by applying the DCR (45) and the LTV (48) to the criteria in Figure 1. See Notes 2, 3, 4, 5, and 6 below for special circumstances. If (41) = yes, CM1. If (42) = yes, CM2. If no LTV and DCR, and (41) = no, CM3.

Note 1: Net Operating Income (NOI): The majority of commercial mortgage loans require the borrower to provide the lender with at least annual financial statements. The NOI would be determined at the RBC calculation date based on the most recent annual period from financial statements provided by the borrower and analyzed based on accepted industry standards. The most recent annual period is determined as follows:

- If the borrower reports on a calendar year basis, the statements for the calendar year ending December 31 of the year prior to the RBC calculation date will be used. For example, if the RBC calculation date is 12/31/2012, the most recent annual period is the calendar year that ends 12/31/2011.
- If the borrower reports on a fiscal year basis, the statements for the fiscal year that ends after June 30 of the prior calendar year and no later than June 30 of the year of the RBC calculation date will be used. For example, if the RBC calculation date is 12/31/2012, the most recent annual period is the fiscal year that ends after 6/30/2011 and no later than 6/30/2012.

- The foregoing time periods are used to provide sufficient time for the borrower to prepare the financial statements and provide them to the lender, and for the lender to calculate the NOI.

The accepted industry standards for determining NOI were developed by the Commercial Mortgage Standards Association now known as CRE Financial Council (CREFC). The company must develop the NOI using the standards provided by the CREFC Methodology for Analyzing and Reporting Property Income Statements (www.crefc.org/irp). These standards are part of the CREFC Investor Reporting Package (CREFC IRP Section VII.) developed to support consistent reporting for commercial real estate loans owned by third party investors. This guidance is a standardized basis for determining NOI for RBC.

The NOI will be adjusted to use a 3-year rolling average for the DSC calculation. For 2013, a single year of NOI will be used. For 2014, 2 years will be used, weighted 65% most recent year and 35% prior year. Thereafter, 3 years will be used weighted 50% most recent year, 30% prior year, and 20% 2nd prior year. This will apply when there is a history of NOI values. For new originations, including refinancing, the above schedule would apply by duration from origination. For the special circumstances listed below, the specific instructions below will produce the NOI to be used, without further averaging.

For purposes of the NOI inputs at (14), (15), (16), and the computation of a Rolling Average NOI at (43), an insurer may report 2020 NOI (i.e., NOI for any 12-month fiscal period ending after June 30, 2020 but not later than June 30, 2021) as the greater of: (1) actual NOI as determined under the CREF-C IRP Standards or (2) 85% of NOI determined for the immediate preceding fiscal year's annual report. This guidance with respect to 2020 NOI applies to the application of the 2020 NOI in risk-based capital reporting for 2021, 2022, and 2023. In cases where an insurer reports 85% of 2019 NOI as the 2020 NOI input, the insurer should retain information about actual 2020 NOI in its workpapers so that the information can be readily available to regulators.

Note 2: The calculation of debt service coverage and loan to value will include all debt secured by the property that is (1) senior to or pari passu with the insurer's investment; and (2) any debt subordinate to the insurer's investment that is not (a) subject to an intercreditor, standstill or subordination agreement with the insurer provided that the agreement does not grant the subordinate debt holder any rights that would materially affect the rights of the insurer and provided that the subordinate debt holder is prohibited from taking any action against the borrower that would materially affect the insurer's priority lien position with respect to the property without the prior written consent of the insurer, or (b) subject to governing laws that provide that the insurer's investment holds a senior position to the subordinated debt holder and provide substantially similar protections to the insurer as in (2)(a) above.

Note 3: *Unavailable Operating Statements:*

There are a variety of situations where the most recent annual period's operating statement may not be available to assist in determining NOI. These situations will occur in distinct categories and each category requires special consideration. The categories are:

1. Loans on owner occupied properties

- a. For properties where the owner is the sole or primary tenant (50% or more of the rentable space), property level operating statements may not be available or meaningful. If the property is occupied and the loan, taxes and insurance are current, it will be acceptable to derive income and a reasonable estimate of expenses from the most recent appraisal or equivalent and additional known actual expenses (e.g., real estate taxes and insurance).
- b. For properties where the owner is a minority tenant (49% or less of the rentable space), the owner-occupied space should be underwritten at the average rent per square foot of the arm's length tenant leases. This income estimate should be added to the other tenant leases and combined with a reasonable estimate of expenses based on the most recent

appraisal or equivalent and additional known actual expenses (e.g., real estate taxes and insurance).

2. Borrower does not provide the annual operating statement

- a. Borrower refuses to provide the annual operating statements
 - i. If the leases are in place and evidenced by estoppels and inspections, NOI would be derived from normalized underwriting in accordance with the CREFC Methodology for Analyzing and Reporting Property Income Statements.
 - ii. If there is evidence from inspection that the property is occupied, but there is no evidence of in place leases (e.g., lease documents or estoppels), NOI would be set equal to the lesser of calculated debt service (DSC=1.0) or the NOI from the normalized underwriting.
 - iii. If there is no evidence from inspection that the property is occupied and no evidence of in place leases (e.g., lease documents or estoppels), assume NOI = \$0.
- b. If the borrower does not have access to a complete previous year operating statement, determine NOI based on the CREFC guidelines for analyzing a partial year income statement.

Note 4: Construction loans

Construction loans would be categorized as follows, based on a determination by the loan servicer whether the loan is in balance and whether construction issues exist:

- | | | |
|----|---|------------------------------------|
| a. | In balance, no construction issues: | DSC = 1.0, LTV determined as usual |
| b. | Not in Balance, no construction issues: | CM4 |
| c. | Construction issues: | CM5 |

A loan is “*in balance*” if the committed amount of the construction loan plus any lender held reserves and unfunded borrower equity is sufficient to cover the remaining costs of the development project, including debt service not anticipated to be paid from property operations.

A “*construction issue*” is a problem that may reasonably jeopardize the completion of the project. Examples of construction issues include the abandonment of construction and construction defects that are not being addressed.

Note 5: Credit enhancements: Where the loan payments are secured by a letter of credit from an investment grade financial institution or an escrow account held at an investment grade financial institution, NOI less than the debt service may be increased by these amounts until it is equal to but not exceeding the debt service. These situations are typically short term in nature, and are intended to bridge the lease-up following renovation or loss of a major tenant.

Note 6: Non-income-producing land: NOI = \$0

Note 7: Non-senior financing

- a. The company should first calculate DSC and LTV for non-senior financing using the standardized debt service and aggregate LTV of all financing pari passu and senior to the position held by the company.
- b. The non-senior piece should then be assigned to the next riskier RBC category. For example, if the DSC and LTV metrics determined in (a) indicate a category of CM2, the non-

senior piece would be assigned to category CM3. However, it would not be required to assign a riskier category than CM5 if the loan is not at least 90-days delinquent or in foreclosure.

Note 8: Definitions of each type of Farm Mortgage:

Timber: A loan is classified as a timber loan if more than 50% of the collateral market value (land and timber) of the security is attributable to land supporting a timber crop that is or will be of commercial value.

Farm & Ranch: Farm and ranch land utilized in the production of agricultural commodities of all kinds, including grains, cotton, sugar, nuts, fruits, vegetables, forage crops and livestock of all kinds, including, beef, swine, poultry, fowl and fish. Loans included in this category are those in which agricultural land accounts for more than 50% of total collateral market value.

Agribusiness Single Purpose: Specialized collateral utilized in the production, further processing, adding value or manufacturing of an agricultural commodity or forest product. In order for a loan to be classified as such, the market value of the single-purpose (special use) collateral would account for more than 50% of total collateral market value.

This collateral is generally not multi-functional and can only be used for a specific production, manufacturing and/or processing function within a specific sub-sector of the food or agribusiness industry and whereby such assets are not strategically important in nature to the overall industry capacity. These assets can be shut down or replicated easily in other locations, or existing plants can be expanded to absorb shuttered capacity. The assets are not generally limited in nature by environmental or operational permits and/or regulatory requirements. An example would be a poultry processing plant located in the Southeast of the United States where there is excess capacity inherent to the industry and production capacity is easily replaceable.

Other loans included in this category are those collateralized by single purpose (special use) confinement livestock production facilities in which the special use facilities account for more than 50% of total collateral market value.

Agribusiness All Other: Multiple-use collateral utilized in the production, further processing, adding value or manufacturing of an agricultural commodity or forest product. In order for a loan to be classified as such, the market value of any single use portion may not be greater than 50% of total collateral market value.

This collateral is multi-functional in nature, adaptable to other manufacturing, processing, or servicing food or agribusiness industries or sub-industries. Assets could also be very strategic in nature and not easily replaceable either due to cost, location, environmental permitting and/or government regulations. These assets may be single purpose in nature, but so vital to the industry capacity needs that they will be generally purchased by another like processing company or strategic or financial buyer. An example of these types of assets are strategically located and highly automated cold storage facilities whereby they can be used for dry storage, distribution centers or converted into warehouse or other type uses. Another example may be a cheese processing plant that is strategically located within the heart of the dairy industry, limited permits, environmental restrictions that would limit added capacity, or high barriers to entry to build a like facility within the industry. For example, one of the largest cheese plants in the industry is located in California and it is not easily replicated within the cheese processing industry due to its location, capacity, costs, access to fluid milk supply and related feed and water, as well as highly regulated environmental and government restrictions.

Other loans included in this category are those in which more than 50% of the collateral market value is accounted for by chattel assets or other assets related to the business and financial operations of

agribusinesses, including inventories, accounts, trade receivables, cash and brokerage accounts, machinery, equipment, livestock and other assets utilized for or generated by agribusiness operations.

(Figure 11)

For Office, Industrial, Retail and Multi-family

Risk Category	DSC Limits		LTV Limits
CM1	1.50 ≤ DSC	and	LTV < 85%
CM2	0.95 ≤ DSC < 1.50	and	LTV < 75%
CM2	1.15 ≤ DSC < 1.50	and	75% ≤ LTV < 100%
CM2	1.50 ≤ DSC	and	85% ≤ LTV < 100%
CM2	1.75 ≤ DSC	and	100% ≤ LTV
CM3	DSC < 0.95	and	LTV < 85%
CM3	0.95 ≤ DSC < 1.15	and	75% ≤ LTV < 100%
CM3	1.15 ≤ DSC < 1.75	and	100% ≤ LTV
CM4	DSC < 0.95	and	85% ≤ LTV < 105%
CM4	0.95 ≤ DSC < 1.15	and	100% ≤ LTV
CM5	DSC < 0.95	and	105% ≤ LTV
CM6	Loans 90 days past due but not yet in process of foreclosure		
CM7	Loans in process of foreclosure		

(Figure 12)

For Hotels and Specialty Commercial

Risk category	DSC limits		LTV limits
CM1	1.85 ≤ DSC	and	LTV < 60%
CM2	1.45 ≤ DSC < 1.85	and	LTV < 70%
CM2	1.85 ≤ DSC	and	60% ≤ LTV < 115%
CM3	0.90 ≤ DSC < 1.45	and	≤ LTV < 80%
CM3	1.45 ≤ DSC < 1.85	and	70% ≤ LTV
CM3	1.85 ≤ DSC	and	115% ≤ LTV
CM4	DSC < 0.90	and	LTV < 90%
CM4	0.90 ≤ DSC < 1.10	and	80% ≤ LTV < 90%
CM4	1.10 ≤ DSC < 1.45	and	80% ≤ LTV
CM5	1.10 ≤ DSC	and	90% ≤ LTV
CM6	Loans 90 days past due but not yet in process of foreclosure		
CM7	Loans in process of foreclosure		

(Figure 13)

For Farm Loans:

	<u>Timber</u>	<u>Farm & Ranch</u>	<u>Agribusiness Single Purpose</u>	<u>Agribusiness All Other</u>
CM1	LTV ≤ 55%	LTV ≤ 60%		LTV ≤ 60%
CM2	55% < LTV ≤ 65%	60% < LTV ≤ 70%	LTV ≤ 60%	60% < LTV ≤ 70%
CM3	65% < LTV ≤ 85%	70% < LTV ≤ 90%	60% < LTV ≤ 70%	70% < LTV ≤ 90%
CM4	85% < LTV ≤ 105%	90% < LTV ≤ 110%	70% < LTV ≤ 90%	90% < LTV ≤ 110%
CM5	105% < LTV	110% < LTV	90% < LTV	110% < LTV
CM6	Loans 90 days past due but not yet in process of foreclosure			

CM7	Loans in process of foreclosure
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