Guidelines for Submission of an Application for a PCA Risk Mitigation Credit

AS PROVIDED IN SECTION 702.108 OF THE NCUA RULES AND REGULATIONS

A Publication of the National Credit Union Administration
March 2001

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FOREWORD – NCUA Board Approval

This document provides the National Credit Union Administration (NCUA) Board's procedure for a federally-insured credit union (you) to apply for a prompt corrective action (PCA) risk mitigation credit (RMC) under NCUA Rules and Regulations §702.108.

SECTION I – Risk Mitigation Credit (RMC) General Information

1. What is an RMC?
An RMC is a credit to reduce your risk-based net worth requirement (RBNW requirement).

You may apply for an RMC consisting of: (1) an interest rate risk mitigation credit (IRRMC) and/or (2) a credit risk mitigation credit (CRMC). You can apply for either or both types of credits. NCUA will evaluate your application and, in its sole discretion, may grant you an RMC.

NCUA will periodically review your risk measurement process. NCUA may amend or cancel your RMC. NCUA amendment or cancellation will take effect on the next effective date of net worth classification (§702.101(b)(1)).

You must report your RMC to NCUA each time you compute your RBNW requirement. If you discontinue calculating your RMC, it will be deemed canceled. If you continue calculating your RMC (even after you meet your RBNW requirement), your RMC will not automatically be deemed canceled.

2. How will you compute an RMC?
An RMC is not a static amount. If NCUA grants your request for an RMC, you will compute your RMC equal to an IRRMC plus all CRMCs. The general format for an IRRMC and a CRMC is as follows:

EXHIBIT 1 – IRRMC AND CRMC FORMAT

RMC = Maximum RMC X Qualitative Rating X Quantitative Category Factor

Where:
Maximum RMC is the maximum credit you can receive, as explained under Sections II and III below;

Qualitative Rating is an NCUA-assigned rating (with a value between 0.00 and 1.00); and

Quantitative Category Factor is a factor (with a value between 0.00 and 1.00) determined using quantitative information from your risk measurement process.

You will compute an RMC each time you compute your RBNW requirement. Sections II and III of the guidelines explain further how you will compute an IRRMC and a CRMC using an NCUA-approved formula, as well as the quantitative information you will need.

3. Who may apply for an RMC?

You may apply for an RMC only if you fail your applicable RBNW requirement under both the "standard calculation," §702.106, and with the "alternative components," §702.107.

4. When may you apply for an RMC?

You may apply for an RMC only on or after the effective date of your net worth classification as less than "adequately capitalized," §702.101(b), because your net worth ratio is less than your RBNW requirement. If your application is not approved or you wish to amend your approved RMC, you may reapply or submit an amended application at any time. On a case-by-case basis, NCUA may limit how frequently you may apply.

5. Can you apply for an RMC as part of a net worth restoration plan?

No. You must apply for an RMC by separate written application. However, you may request that NCUA review your RMC application prior to your submission of a net worth restoration plan (NWRP). Upon your request accompanying the RMC application, NCUA may extend the time period for you to file an NWRP under §702.206(a)(1).

6. What must your application for an RMC include?

Your application must include: (1) your plan for measuring interest rate risk and/or credit risk (as specified in Sections II and III, below), and (2) your schedules supporting the RBNW requirement calculated with the "alternative components" under §702.107. (NCUA will have your RBNW requirement under the "standard calculation" from your Call Report.)

7. To whom do you submit your application for an RMC?

Submit your application to the appropriate regional director. If you are a federally-insured, state-chartered credit union (FISCU), you also need to send a copy to the appropriate State official.

8. When will NCUA evaluate your application?

NCUA will evaluate your written RMC application within 45 calendar days after receipt. When evaluating the application of a FISCU, NCUA will consult and seek to work cooperatively with the appropriate State official.

If your application is not complete, NCUA may request you submit supplemental information. NCUA will evaluate your application within 45 days of receiving any supplemental information you submit.

9. How will NCUA evaluate your application?

NCUA staff will evaluate your application according to "*Guidelines for Evaluation of an Application for a PCA Risk Mitigation Credit.*" You may obtain a copy of the publication from the NCUA website (www.ncua.gov) or by calling the appropriate NCUA regional office.

SECTION II – Interest Rate Risk Mitigation Credit (IRRMC)

1. What must your IRRMC application include?

Your application must include a plan to measure interest rate risk that is based on quantitative data. Any assumptions must be reasonable and supportable. To the degree the evidence of mitigation is reliable, NCUA will assign a Qualitative Rating you will use in an NCUA-approved formula to compute your RMC.

Your application must include the impact of an immediate and sustained parallel shift in market interest rates of plus and minus 300 basis points on your net economic value (NEV) and your NEV ratio as of quarter end. (NEV and NEV ratio are explained under question 5, below).

In addition, your application must include:

a. Risk Measurement Policies, Procedures, and Documentation. Policies and procedures that relate to your interest rate risk *measurement* process. You do not need to provide information on limits, reporting or accountability.

b. Data Inputs. An explanation of how you obtain and input into your model the following data: balance sheet amounts; balance sheet rates; and the remaining term of scheduled cash flows. You must include sufficient information about asset and liability characteristics to facilitate an evaluation of your chart of accounts. Your chart of accounts must disaggregate material items that have dissimilar characteristics. (For example, 30-year fixed-rate real estate loans should be segregated from 5-year balloon real estate loans.)

c. Assumptions. An explanation of how you:
   - Formulate cash flow assumptions, including prepayment rates (*e.g.*, user input, third-party provided table, or third-party provided model);
   - Determine appropriate discount rates, including how you will determine credit spreads; and
   - Model non-maturity deposit account balances, rates, and costs.

d. Model Capabilities and Implementation. The valuation technique you use for each material category in your chart of accounts, including how you value items with embedded options.

e. Validations. An explanation of how you review your model results for reasonableness. This must include sample valuations (under current rates and plus and minus 300 basis point changes in rates), your benchmarks (*i.e.*, instruments with price sensitivities measured using industry standard methods), if any, and sufficient supporting information for NCUA to check the reasonableness of your valuations and sensitivities of real estate loans, investments, and non-maturity deposit accounts. For other major balance sheet categories, you should include sample valuations and your benchmarks, if any, for NCUA review.

2. How will you compute an IRRMC?

If NCUA grants you an IRRMC, you will compute it using the following formula:

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EXHIBIT 1 – IRRMC FORMULA

</div>

> **IRRMC = Maximum IRRMC X Qualitative Rating X Quantitative Category Factor**
>
> Where:
> Maximum IRRMC is the amount of the RBNW requirement attributed primarily to interest rate risk, as explained in Exhibit 2, below;
>
> Qualitative Rating is explained under question 3, below; and
>
> Quantitative Category Factor is explained under question 4, below.

You compute Maximum IRRMC as follows:

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EXHIBIT 2 – MAXIMUM IRRMC CALCULATION

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> **Maximum IRRMC = RBNW Requirement minus Minimum RBNW Requirement**
>
> Where:
> RBNW Requirement is the lower of your RBNW requirement under the "standard calculation" or with "alternative components" before applying an RMC; and
>
> Minimum RBNW Requirement is the RBNW requirement under the "standard calculation" computed with two changes:
> (1) Replace the "Member business loans (MBLs) outstanding" component with "MBLs outstanding" risk portfolio times a risk weighting of .08; and
> (2) Replace all other risk weightings greater than .06 with .06.

The purpose of the Minimum RBNW Requirement is to ensure that, after subtracting an IRRMC from an RBNW requirement, the National Credit Union Share Insurance Fund (NCUSIF) is adequately protected from all risks other than interest rate risk. The risk weighting of .08 for the "MBLs outstanding" risk portfolio reflects the credit risk weighting used by other depository institution regulators for commercial loans. The risk weighting of .06 reflects the "adequately capitalized" net worth ratio. (See Steps 1.a-c of Attachment A for an example of these calculations.)

3. What is your Qualitative Rating?

NCUA will assign you a Qualitative Rating at the time it approves your application and will review this rating periodically. The Qualitative Rating is a reliance measure based on NCUA's assessment of the interest rate risk measurement process you describe in your application. The Qualitative Rating will have a value of between 0.00 and 1.00. (See "*Guidelines for Evaluation of an Application for a PCA Risk Mitigation Credit*" for a discussion of how NCUA will evaluate your NEV measurement process.)

4. What is your Quantitative Category Factor?

The Quantitative Category Factor reflects the risk your NEV has to increases in interest rates. (NEV and NEV ratio are explained under question 5, below.) The greater the measured risk, the lower will be an IRRMC. Calculate your quarter-end NEV ratio and the result of an immediate and sustained parallel increase in market interest rates of 300 basis points on your NEV ratio. The resulting NEV ratio is your post-shock NEV ratio.

Read your Quantitative Category from Table A, below, using: (1) post-shock NEV ratio; and (2) the decline (in basis points) from your quarter-end NEV ratio to your post-shock NEV ratio.

Post-shock NEV ratio (300 bps)	Decline in NEV ratio					
	0 to 100 bps	>100 to 200 bps	>200 to 400 bps	> 400 to 600 bps	> 600 to 800 bps	> 800 bps
10% or above	*Minimal Risk (1)*	*Minimal Risk (1)*	*Minimal Risk (1)*	*Minimal Risk (1)*	**Moderate Risk (2)**	**Significant Risk (3)**
6 to 9.99%	*Minimal Risk (1)*	*Minimal Risk (1)*	*Minimal Risk (1)*	**Moderate Risk (2)**	**Significant Risk (3)**	**Significant Risk (3)**
4 to 5.99%	*Minimal Risk (1)*	*Minimal Risk (1)*	**Moderate Risk (2)**	**Significant Risk (3)**	**High Risk (4)**	**High Risk (4)**
2 to 3.99%	*Minimal Risk (1)*	**Moderate Risk (2)**	**Significant Risk (3)**	**High Risk (4)**	**High Risk (4)**	**High Risk (4)**
0 to 1.99%	**Moderate Risk (2)**	**Significant Risk (3)**	**High Risk (4)**	**Excessive Risk (5)**	**Excessive Risk (5)**	**Excessive Risk (5)**
Less than 0%	**Significant Risk (3)**	**High Risk (4)**	**Excessive Risk (5)**	**Excessive Risk (5)**	**Excessive Risk (5)**	**Excessive Risk (5)**

Using your Quantitative Category (from Table A, above), read your Quantitative Category Factor from Table B, below.

Quantitative Category	Quantitative Category Factor
(1) Minimal Risk	1.00
(2) Moderate Risk	0.75
(3) Significant Risk	0.50
(4) High Risk	0.25
(5) Excessive Risk	0.00

5. What are the definitions of net economic value (NEV) and NEV ratio?

NEV means the fair value of assets minus the fair value of liabilities. (Fair value is explained under question 6, below.) All fair value calculations must include the value of all unsettled transactions[1] and embedded options. The NEV ratio is calculated by dividing NEV by the fair value of assets.

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[1] Unsettled transactions include all contracted purchases of assets that have not been recorded on your books.

6. What is fair value?

You must determine the fair value of your assets and liabilities to compute your quarter-end NEV ratio and your post shock NEV ratio.

To compute your quarter-end NEV ratio, the best estimate of fair value is a quoted market price (a publicly reported sales price or, in the alternative, a price based on bid-and-asked quotations). In the absence of a quoted market price, you may estimate a fair value using a model price that is reasonable and supportable, a quoted market price for a similar item, or a current appraised value. If you have not reasonably ascertained a price for a balance sheet item without a quoted market price, then you must report the item at book value and disclose in the application those items reported at book value. For example, non-earning assets may be reported at book value.

To compute your post-shock NEV ratio, fair values must be computed using model prices that are based on reasonable and supportable assumptions and projections.

Model prices may be obtained using the present value of estimated future cash flows, option-pricing models, or option-adjusted spread models. Model prices should incorporate assumptions that market participants would use in their estimates of values, including assumptions about interest rates, default, prepayment, and volatility. In developing your model prices, you should consider the extent to which the evidence can be verified objectively. [2]

7. How does net worth differ from NEV?

Net worth is a book value measure generally defined as your retained earnings balance as determined under generally accepted accounting principles (GAAP).[3] Net economic value is a fair value measure.

To the extent the accounting carrying amounts of balance sheet items differ from fair values, net worth differs from NEV. The accounting carrying amount of a balance sheet item is based on a mixed attribute model, utilizing historic cost and fair (market) value accounting. Thus, many balance sheet items are not carried at fair value. If the book amounts of all assets and liabilities were to equal their respective fair values, then net worth would equal NEV.

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[2] For further guidance on fair value, see Statement of Financial Accounting Standards (FASB Statement) No. 140, Par. 68, 69, and 70.
[3] Net worth and net worth ratio are defined in NCUA Rules & Regulations Sections 702.2(f) and (g). 12 CFR §§702.2(f) and 702.2(g).

SECTION III – Credit Risk Mitigation Credit (CRMC)

1. What must your CRMC application include?

Your application must include the characteristics you will use to identify one or more loan types, in the "Member business loans (MBLs) outstanding" or "Long-term real estate loans" or "Loans sold with recourse" risk portfolios, for which you can provide quantitative evidence of credit risk mitigation. Because there are many different types of such loans, it would not be practical to identify all possible characteristics in these guidelines. Your application must explain how your reporting systems monitor the loan types identified in the application.

Your application must address the specific, quantitative factors of credit quality of loans subject to the application. Such factors typically would include loan-to-value ratios and first priority security interests in real estate or tangible property. You must provide information on how you determined the value of the collateral and your procedures for establishing and updating collateral value over the life of the loan.

2. How will you compute a CRMC?

If NCUA grants you one or more CRMCs, you will compute them using the formula in Exhibit 3, below. You will compute a CRMC for loans in each Quantitative Category. A <u>Quantitative Category</u> is a subset of a loan type (for which NCUA has approved a CRMC) that corresponds to a Quantitative Category Factor.

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EXHIBIT 3 – CRMC FORMULA

</div>

CRMC = Maximum CRMC X Qualitative Rating X Quantitative Category Factor

Where:

<u>Maximum CRMC</u> is the percentage of total assets in a Quantitative Category (as explained above) times a factor of .04 for "MBLs outstanding" or .02 for "Long-term real estate loans" or .06 minus the fair value of recourse obligations (as a percentage of the loan amounts) for "Loans sold with recourse";

<u>Qualitative Rating</u> is explained under question 3, below; and

<u>Quantitative Category Factor</u> is explained under question 4, below.

The purpose of the Maximum CRMC is to ensure that, after subtracting all CRMCs from an RBNW requirement, the NCUSIF is adequately protected from

all risks other than credit risk. Therefore, CRMCs will reduce the RBNW requirement by no more than four percent of the "MBLs outstanding" risk portfolio, no more than two percent of the "Long-term real estate loans" risk portfolio, and no more than six percent minus the fair value of recourse obligations (as a percentage of the loan amounts) for the "Loans sold with recourse" risk portfolio.

Generally, the combination of CRMCs and an IRRMC may reduce the minimum risk weightings for the "MBLs outstanding" and "Long-term real estate loans" components to no less than about four percent. A CRMC may reduce the minimum risk weighting for the "Loans sold with recourse" risk portfolio to no less than 100 percent of the fair value of recourse obligations.

The four percent minimum risk weighting described above is derived for the "Long-term real estate loans" risk portfolio by the minimum risk weighting of six percent under an IRRMC calculation minus a maximum credit of two percent under a CRMC calculation. (The minimum risk weighting under the RBNW requirement "standard calculation" also is six percent for this risk portfolio.) Four percent reflects the credit risk weighting used by other depository institution regulators for residential mortgage loans.

The four percent minimum risk weighting described above is derived for the "MBLs outstanding" risk portfolio by the minimum risk weighting of eight percent under an IRRMC calculation minus a maximum credit of four percent under a CRMC calculation.   (The eight percent minimum risk weighting under an IRRMC calculation is larger than the six percent minimum risk weighting under a "standard calculation." An IRRMC will not reduce the average risk weighting for the "MBLs outstanding" component to less than eight percent.) This should result in an adequate RBNW requirement to protect the NCUSIF from the risk of MBLs secured by an abundance of collateral at a credit union with an excellent credit risk measurement process and minimal exposure to interest rate risk.

3. What is your Qualitative Rating?

NCUA will assign you a Qualitative Rating for each loan type at the time it approves your CRMC application and will review this rating periodically. The qualitative rating is a reliance measure NCUA will assign based on NCUA's assessment of the credit risk mitigation measurement process you describe in your application. The qualitative rating will have a value of between 0.00 and 1.00. NCUA will assign a separate qualitative rating for each loan type in your application. (See "*Guidelines for Evaluation of an Application for a PCA Risk Mitigation Credit*" for a discussion of how NCUA will evaluate your credit risk mitigation measurement process.)

4. What is your Quantitative Category Factor?

The Quantitative Category Factor reflects the credit risk of the loan type by Quantitative Category. NCUA will provide you a table that you will use each quarter to determine your Quantitative Category Factor for each subset of loan type in your application. The table will be tailored to your particular circumstances. As tables are developed, NCUA staff will provide a summary of NCUA-approved tables in *"Guidelines for Evaluation of an Application for a PCA Risk Mitigation Credit"*. By way of example, a table may be in the following format:

TABLE C – EXAMPLE QUANTITATIVE CATEGORY FACTORS FOR CREDIT RISK

Quantitative Category Loan-to-value Ratio	Quantitative Category Factor
> 80%	0.00
> 70 to 80%	0.25
> 60 to 70%	0.50
> 50 to 60%	0.75
50% or less	1.00

Example Interest Rate Risk Mitigation Credit (IRRMC)

Steps. To determine your IRRMC:

1. *Compute Maximum IRRMC.*
   a. *Compute risk-based net worth requirement (RBNW)* under the "standard calculation" (from the Call Report) and using "alternative components."
   b. *Compute Minimum RBNW Requirement* (as in Step 1.a) with two changes:
      i. Replace the "MBLs outstanding" component with "MBLs outstanding" risk portfolio times a risk weighting of .08; and
      ii. Replace all other risk weightings in RBNW requirement "standard calculation" that are greater than .06 with .06.
   c. *Compute Maximum IRRMC.* Maximum IRRMC equals RBNW requirement (from Step 1.a) minus Minimum RBNW Requirement (from Step 1.b).
2. *Record current Qualitative Rating.* NCUA assigns this rating using the *"Guidelines for Evaluation of an Application for a PCA Risk Mitigation Credit."*
3. *Determine Quantitative Category Factor.*
   a. *Compute NEV measures.* Compute post-shock NEV ratio and decline in basis points (bp) from quarter-end NEV ratio to post shock NEV ratio.
   b. *Read Quantitative Category.* Read Quantitative Category from "Table A – Quantitative Categories for Interest Rate Risk," using NEV measures (from Step 3.a).
   c. *Read Quantitative Category Factor.* Read Quantitative Category Factor from "Table B – Quantitative Category Factors for Interest Rate Risk," using Quantitative Category (from Step 3.b).
4. *Compute IRRMC.* IRRMC equals Maximum IRRMC (from Step 1) times Qualitative Rating (from Step 2) times Quantitative Category Factor (from Step 3.c), rounded to two decimal places.
5. *Compute RMC.* RMC equals IRRMC (from Step 4) plus CRMC (see Attachment B, Step 6).
6. *Compute revised RBNW requirement.* Revised RBNW requirement equals RBNW requirement (from Step 1.a) less RMC (from Step 5). Compare revised RBNW requirement to net worth ratio.

Example IRRMC calculation for ABC Credit Union

Assume ABC Credit Union has an 8.00% net worth ratio and has an NCUA-approved IRRMC. ABC Credit Union's computation of its IRRMC follows.

Step 1.a. *Compute RBNW requirement under "standard calculation."*

STANDARD COMPONENTS OF
RISK BASED NET WORTH (RBNW) REQUIREMENT
(AUTOMATED – NO INPUT NECESSARY)

Credit Union Name: ABC Credit Union   Federal Charter/Certificate Number: 99999

***The information below is provided only for your information. No credit union is required to provide input on this page.** Information entered on preceding schedules will populate the line items below on the PC 5300 Automated System. Manual Call Report filers will also leave these items blank.*

The RBNW requirement is only applicable to those credit unions with assets greater than $10,000,000 and a RBNW requirement greater than six percent.

Risk portfolio	*Dollar balance*	*Amount as percent of quarter-end total assets*	*Risk weighting*	*Amount times risk weighting*	*Standard component*
Quarter-end total assets Assets, line 29 (Acct. code 010)	200,000,000	100.0000 %			
(a) Long-term real estate loans Sched A Line 3 (Acct. code 710) less: Sched A Line 9 (Acct. code 718) Sched A Line 11 (Acct. code 712)	150,000,000 185,000,000 30,000,000 5,000,0000	75.0000 %			8.50 %
Threshold amount: 0 to 25% Excess amount: over 25%		25.0000 % 50.0000 %	.06 .14	1.5000 % 7.0000 %	
(b) MBLs outstanding Sched B line 3 (Acct. code 400)	30,000,000	15.0000 %			1.05 %
Threshold amount: 0 to 12.25% Excess amount: over 12.25%		12.2500 % 2.2500 %	.06 .14	0.7350 % 0.3150 %	
(c) Investments *Weighted-average life*: Schedule C Line 12	5,000,000				0.08 %
0 to 1 year (Acct code 799A) >1 year to 3 years (Acct code 799B) >3 years to 10 years (Acct. code 799C) >10 years (Acct. code 799D)	5,000,000 0 0 0	2.5000 % 0.0000 % 0.0000 % 0.0000 %	.03 .06 .12 .20	0.0750 % 0.0000 % 0.0000 % 0.0000 %	
(d) Low-risk assets Assets line 1 (Acct. code 730A) plus: Assets line 27 (Acct. code 794)	2,900,000 1,000,000 1,900,000	1.4500 %	.00		0 %
Sum of risk portfolios (a) through (d) above	187,900,000	93.9500 %			
(e) Average-risk assets Assets, line 29 (Acct. code 010) less: Risk portfolio items (a) through (d) above	12,100,000	6.0500 %	.06	0.3630 %	0.36 %
(f) Loans sold with recourse Sched G, line 2.B. (Acct. code 819)	0	0.0000 %	.06		0.00 %
(g) Unused MBL commitments Sched G lines 1 A.,B, (Acct. codes 814, 814A)	0	0.0000 %	.06		0.00 %
(h) Allowance (Credit limited to 1.5% of loans) Assets, line 23 (Acct. code 719)	2,000,000	1.0000 %	(1.00)		(1.00) %
Sum of standard components: **RBNW requirement (Acct code 999)**					8.99 %

Step 1.a continued. *Compute RBNW requirement using "alternative components."*

LONG-TERM REAL ESTATE LOANS ALTERNATIVE COMPONENT, §702.107(a)

Remaining maturity	Dollar balance of Long-term real estate loans by remaining maturity	Percent of total assets by remaining maturity	Alternative risk weighting	Alternative component
> 5 years to 12 years	0.00	0.0000 %	.08	0.0000 %
> 12 years to 20 years	10,000,000.00	5.0000 %	.12	0.6000 %
> 20 years	140,000,000.00	70.0000 %	.14	9.8000 %
Sum of above equals Alternative component*				10.40 %

* Substitute for standard component if lower.

MEMBER BUSINESS LOANS ALTERNATIVE COMPONENT, §702.107(b)

Remaining maturity	Dollar balance of MBLs by remaining maturity	Percent of total assets by remaining maturity	Alternative risk weighting	Alternative component
Fixed-rate MBLs				
0 to 3 years	4,000,000.00	2.0000 %	.06	0.1200 %
> 3 years to 5 years	5,000,000.00	2.5000 %	.09	0.2250 %
> 5 years to 7 years	6,000,000.00	3.0000 %	.12	0.3600 %
> 7 years to 12 years	15,000,000.00	7.5000 %	.14	1.0500 %
> 12 years	0.00	0.0000 %	.16	0.0000 %
Variable-rate MBLs				
0 to 3 years	0.00	0.0000 %	.06	0.0000 %
> 3 years to 5 years	0.00	0.0000 %	.08	0.0000 %
> 5 years to 7 years	0.00	0.0000 %	.10	0.0000 %
> 7 years to 12 years	0.00	0.0000 %	.12	0.0000 %
> 12 years	0.00	0.0000 %	.14	0.0000 %
Sum of above equals Alternative component*				1.76 %

* Substitute for standard component if lower.

INVESTMENTS ALTERNATIVE COMPONENT, §702.107(c)

Weighted average life	Dollar balance of investments by weighted average life	Percent of total assets by weighted-average life	Alternative risk weighting	Alternative component
0 to 1 year	5,000,000.00	2.5000 %	.03	0.07500 %
> 1 year to 3 years	0.00	0.0000 %	.06	0.0000 %
> 3 years to 5 years	0.00	0.0000 %	.08	0. 0000 %
> 5 years to 7 years	0.00	0.0000 %	.12	0.0000 %
> 7 years to 10 years	0.00	0.0000 %	.16	0.0000 %
> 10 years	0.00	0.0000 %	.20	0.0000 %
Sum of above equals Alternative component*				0.08 %

* Substitute for standard component if lower.

Step 1.a continued. *Compute RBNW requirement using "alternative components."*

Risk portfolio	Standard component	Alternative component	Lower of standard or alternative component
(a) Long-term real estate loans	8.50 %	10.40 %	8.50 %
(b) MBLs outstanding	1.05 %	1.76 %	1.05 %
(c) Investments	0.08 %	0.08 %	0.08 %
			Standard component
(d) Low-risk assets			0 %
(e) Average-risk assets			0.36 %
(f) Loans sold with recourse			0.00 %
(g) Unused MBL commitments			0.00 %
(h) Allowance			(1.00) %
RBNW requirement* Compare to Net Worth Ratio			**8.99 %**

* A complex credit union is "undercapitalized" if its net worth ratio is less than its applicable RBNW requirement.

Because ABC Credit Union's net worth ratio of 8.00% is less than its 8.99% RBNW requirement, the credit union would be categorized as undercapitalized. Thus, the credit union has decided to compute its IRRMC to determine its revised RBNW requirement (that is, the result of subtracting its IRRMC from its RBNW requirement).

Step 1.b. *Compute Minimum RBNW Requirement.* Use Call Report data as in Step 1.a, with risk weightings changed.

Risk portfolio	*Dollar balance*	*Amount as percent of quarter-end total assets*	*Minimum risk weighting*	*Amount times minimum risk weighting*	*Revised standard component*
Quarter-end total assets Assets, line 29 (Acct. code 010)	200,000,000	100.0000 %			
(a) Long-term real estate loans Sched A Line 3 (Acct. code 710) less: Sched A Line 9 (Acct. code 718) Sched A Line 11 (Acct. code 712)	150,000,000 185,000,000 30,000,000 5,000,0000	75.0000 %	.06	4.5000 %	4.50 %
(b) MBLs outstanding Sched B line 3 (Acct. code 400)	30,000,000	15.0000 %	.08	.1.2000 %	1.20 %

(c) Investments
Weighted-average life:
 	
Schedule C Line 12
  0 to 1 year   (Acct code 799A)
  >1 year to 3 years (Acct. code 799B)
  >3 years to 10 years (Acct. code 799C)
  >10 years   (Acct. code 799D)
	5,000,000
	
	5,000,000
	0
	0
	0
		
		2.5000 %
		0.0000 %
		0.0000 %
		0.0000 %
			
			.03
			.06
			.06
			.06
				
				0.0750 %
				0.0000 %
				0.0000 %
				0.0000 %
					0.08 %

(d) Low-risk assets Assets line 1 (Acct. code 730A) plus: Assets line 27 (Acct. code 794)	2,900,000 1,000,000 1,900,000	1.4500 %	.00	0.0000 %	0 %
Sum of risk portfolios (a) through (d) above	187,900,000	93.9500 %			
(e) Average-risk assets Assets, line 29 (Acct. code 010) less: Risk portfolio items (a) through (d) above	12,100,000	6.0500 %	.06	0.3630 %	0.36 %
(f) Loans sold with recourse Sched G, line 2.B. (Acct. code 819)	0	0.0000 %	.06	0.000 %	0.00 %
(g) Unused MBL commitments Sched G lines 1 A.,B, (Acct. codes 814, 814A)	0	0.0000 %	.06	0.0000 %	0.00 %
(h) Allowance (Credit limited to 1.5% of loans) Assets, line 23 (Acct. code 719)	2,000,000	1.0000 %	(1.00)		(1.00) %
Sum of revised standard components: **Minimum RBNW Requirement**					5.14 %

Step 1.c. *Compute Maximum IRRMC.*

RBNW requirement (from Step 1.a)	8.99 %
less Minimum RBNW Requirement (from Step 1.b)	5.14 %
Maximum IRRMC	**3.85 %**

Step 2. *Record current Qualitative Rating.* Assume for this example that NCUA has assigned a **Qualitative Rating of 0.80** (that is, 80%).

Step 3. *Determine Quantitative Category Factor.*

Step 3.a. *Compute NEV measures.* Assume the credit union computed and reported, for the current quarter end, the following:

Quarter-end NEV ratio	7.50 %
Post-shock NEV ratio	2.20 %
Decline in NEV ratio	530 basis points

Step 3.b. *Read Quantitative Category.* Using the NEV measures (from Step 3.a), the credit union determines its Quantitative Category is "High Risk (4)" (from the "2 to 3.99% Post-shock NEV ratio" row and the ">400 to 600 bp Decline in NEV ratio" column of "Table A – Quantitative Categories for Interest Rate Risk" (from Section II.4)).

Step 3.c. *Read Quantitative Category Factor.* Using the Quantitative Category (from Step 3.b), the credit union determines its **Quantitative Category Factor is 0.25** (from row "(4) High Risk" of "Table B – Quantitative Category Factors" for Interest Rate Risk (from Section II.4)).

Step 4. *Compute IRRMC.*

Maximum IRRMC (from Step 1.c)	3.85 %
times Qualitative Rating (from Step 2)	0.80
times Quantitative Category Factor (from Step 3.c)	0.25
IRRMC (rounded to two decimal places)	**0.77 %**

Step 5. *Compute RMC.* Assume the NCUA has not approved any CRMCs.

IRRMC (from Step 4)	0.77 %
plus CRMC	N/A
RMC	**0.77 %**

Step 6. *Compute revised RBNW requirement.*

RBNW requirement (from Step 1.a)	8.99 %
less RMC (from Step 5)	0.77 %
Revised RBNW requirement	**8.22 %**
Compare to Net Worth Ratio	

Because ABC Credit Union's net worth ratio of 8.00% is less than its revised RBNW Requirement, it is categorized as "undercapitalized." ABC Credit Union must increase its net worth ratio to at least 8.22%, its revised RBNW requirement, to be categorized as "well capitalized." ABC Credit Union may apply for a CRMC. See Attachment B for a continuation of this example with a CRMC.

Example Credit Risk Mitigation Credit (CRMC)

Steps. To determine your CRMC:

1. *Determine loans in each Quantitative Category.* Report loans (as a percentage of total assets) sorted by NCUA-approved loan type and by NCUA-approved Quantitative Category (for example, see "Table C – Example Quantitative Category Factors for Credit Risk").
2. *Compute Maximum CRMC for each Quantitative Category.* Multiply percentage of total assets times a factor of:
    a. .04 for "MBLs outstanding";
    b. .02 for "Long-term real estate loans"; and
    c. .06 minus the fair value of recourse obligations (as a percentage of the loan amounts) for "Loans sold with recourse."
3. *Record current Qualitative Rating by loan type.* NCUA assigns these ratings using the *"Guidelines for Evaluation of an Application for a PCA Risk Mitigation Credit."*
4. *Record Quantitative Category Factor for each Quantitative Category.* Read the Quantitative Category Factor from the NCUA-approved table for each Quantitative Category (for example, see "Table C – Example Quantitative Category Factors for Credit Risk").
5. *Compute CRMC for each Quantitative Category.* CRMC for a Quantitative Category equals Maximum CRMC (from Step 2) times Qualitative Rating (from Step 3) times Quantitative Category Factor (from Step 4).
6. *Compute CRMC.* CRMC equals the sum of the CRMCs for each Quantitative Category (from Step 5), rounded to two decimal places.
7. *Compute RMC.* RMC equals IRRMC (see Attachment A, Step 4) plus CRMC (from Step 6).
8. *Compute revised RBNW requirement.* Revised RBNW requirement equals RBNW requirement (see Attachment A, Step 1.a) less RMC (from Step 7). Compare revised RBNW requirement to net worth ratio.

Example CRMC calculation for ABC Credit Union

Assume ABC Credit Union has an **8.00% net worth ratio** and has an NCUA-approved IRRMC (as shown in the example in Attachment A). Assume NCUA also has approved three loan types for a CRMC: (1) "MBLs outstanding" secured by a first lien on commercial real estate; (2) "MBLs outstanding" secured by a first lien on a commercial vehicle; and (3) "Long-term real estate loans" secured by a first lien on a single-family detached dwelling. ABC Credit Union has other loan types, for which it has not applied for a CRMC.

ABC Credit Union's computation of its CRMC follows.

Step 1. *Determine loans in each Quantitative Category.* Assume NCUA has approved Quantitative Categories for each loan type using "Table C – Example Quantitative Category Factors for Credit Risk" (from Section III.4). Assume the credit union computes and reports the outstanding balance of loans (as a percentage of total assets) for the current quarter end, sorted by loan type and Quantitative Category, as follows:

Quantitative Category	Loans by Loan Type (as % of quarter-end total assets)		
	"MBLs outstanding"		"Long-term real estate"
Loan-to-value Ratio	Commercial Real Estate	Commercial Vehicle	Single-Family Real Estate
> 80%	0.0000	4.0000	20.0000
> 70 to 80%	0.0000	3.0000	15.0000
> 60 to 70%	0.0000	2.0000	10.0000
> 50 to 60%	1.0000	0.0000	5.0000
50% or less	2.0000	0.0000	0.0000
Total	3.0000	9.0000	50.0000

Step 2. *Compute Maximum CRMC for each Quantitative Category.*

A	B	C	D
Quantitative Category	Loans by Loan Type (as % of quarter-end total assets)	Factor for Maximum CRMC	Maximum CRMC (column B x column C)
Loan-to-value Ratio	Commercial Real Estate	"MBLs outstanding"	
> 80%	0	.04	0
> 70 to 80%	0	.04	0
> 60 to 70%	0	.04	0
> 50 to 60%	1.0000	.04	0.0400
50% or less	2.0000	.04	0.0800
Total	3.0000		
Loan-to-value Ratio	Commercial Vehicle	"MBLs outstanding"	
> 80%	4.0000	.04	0.1600
> 70 to 80%	3.0000	.04	0.1200
> 60 to 70%	2.0000	.04	0.0800
> 50 to 60%	0	.04	0
50% or less	0	.04	0
Total	9.0000		
Loan-to-value Ratio	Single-Family Real Estate	"Long-term real estate"	
> 80%	20.0000	.02	0.4000
> 70 to 80%	15.0000	.02	0.3000
> 60 to 70%	10.0000	.02	0.2000
> 50 to 60%	5.0000	.02	0.1000
50% or less	0	.02	0
Total	50.0000		

Step 3. *Record current Qualitative Rating by loan type.* Assume for this example NCUA has assigned Qualitative Ratings as follow:

Loan Type	NCUA-assigned Qualitative Rating
Commercial Real Estate	.80
Commercial Vehicle	.60
Single-Family Real Estate	.90

Step 4. *Record Quantitative Category Factor for each Quantitative Category.* Assume NCUA has approved, for each loan type, a Quantitative Category Factor for each Quantitative Category using Table C – Example Quantitative Category Factors for Credit Risk (from Section III.4).

Step 5. *Compute CRMC for each Quantitative Category.* Use columns A and D from Step 2, and data from Steps 3 and 4.

A	D	E	F	G
Quantitative Category	Maximum CRMC (from Step 2)	Qualitative Rating (from Step 3)	Quantitative Category Factor (from Step 4)	CRMC (column D x column E x column F)
Loan-to-value Ratio	**Commercial Real Estate**			
> 80%	0	0.80	0.00	0
> 70 to 80%	0	0.80	0.25	0
> 60 to 70%	0	0.80	0.50	0
> 50 to 60%	0.0400	0.80	0.75	0.0240
50% or less	0.0800	0.80	1.00	0.0640
Total				**0.0880**
Loan-to-value Ratio	**Commercial Vehicle**			
> 80%	0.1600	0.60	0.00	0
> 70 to 80%	0.1200	0.60	0.25	0.0180
> 60 to 70%	0.0800	0.60	0.50	0.0240
> 50 to 60%	0	0.60	0.75	0
50% or less	0	0.60	1.00	0
Total				**0.0420**
Loan-to-value Ratio	**Single-Family Real Estate**			
> 80%	0.4000	0.90	0.00	0
> 70 to 80%	0.3000	0.90	0.25	0.0675
> 60 to 70%	0.2000	0.90	0.50	0.0900
> 50 to 60%	0.1000	0.90	0.75	0.0675
50% or less	0	0.90	1.00	0
Total				**0.2250**

Step 6. *Compute CRMC.* Use totals by CRMC loan type from Step 5.

Loan Type	CRMC
Commercial Real Estate	0.0880
Commercial Vehicle	0.0420
Single-Family Real Estate	0.2250
Total (rounded to two decimal places)	**0.36 %**

Step 7. *Compute RMC.* Use the IRRMC from Attachment A.

IRRMC (from Attachment A, Step 4)	0.77 %
plus CRMC (from Step 6)	0.36 %
RMC	**1.13 %**

Step 8. *Compute revised RBNW requirement.*

RBNW Requirement (from Attachment A, Step 1.a)	8.99 %
less RMC (from Step 7)	1.13 %
Revised RBNW requirement	**7.86 %**
Compare to Net Worth Ratio	

Because ABC Credit Union's net worth ratio of 8.00% is greater than its revised RBNW requirement, it is categorized as "well capitalized." Through its measures of interest rate risk and credit risk, ABC Credit Union has demonstrated its net worth ratio is adequate to protect the NCUSIF.