

7535-01-U

NATIONAL CREDIT UNION ADMINISTRATION

12 CFR Part 741

RIN 3133-AD66

Interest Rate Risk Policy and Program

AGENCY: National Credit Union Administration (NCUA).

ACTION: Final rule.

SUMMARY: NCUA is issuing a final rule requiring federally insured credit unions to develop and adopt a written policy on interest rate risk management and a program to effectively implement that policy, as part of their asset liability management responsibilities. The interest rate risk policy and implementation program will be among the factors NCUA will consider in determining a credit union's insurability. To assist credit unions, the final rule includes an appendix setting forth guidance on developing an interest rate risk policy and an effective implementation program based on generally recognized best practices for safely and soundly managing interest rate risk.

DATES: This rule is effective on September 30, 2012.

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SUPPLEMENTARY INFORMATION:

- I. Background
- II. Subject-by-Subject Discussion of Comments on Proposed Rule
- III. Regulatory Procedures

I. Background¹

A. **What Is Interest Rate Risk?** The term “interest rate risk” (“IRR”) refers to the vulnerability of a credit union’s financial condition to adverse movements in market interest rates. Although some IRR is a normal part of financial intermediation², it still may negatively affect a credit union’s earnings, net worth, and its net economic value, which is the difference between the market value of assets and the market value of liabilities. Changes in interest rates influence a credit union’s earnings by altering interest-sensitive income and

¹ President Obama signed the Plain Writing Act of 2010 (Public Law No. 111-274) into law on October 13, 2010, to “improve the effectiveness and accountability of federal agencies to the public by promoting clear Government communication that the public can understand and use.” This preamble is written to meet the plain writing objectives.

² The process of channeling funds from savers to investors.

expenses (e.g., loan income and share dividends). Changes in interest rates also affect the economic value of a credit union's assets and liabilities because the present value of future cash flows and, in some cases, the cash flows themselves may change when interest rates change. IRR takes several forms: repricing risk, yield curve risk, spread risk, basis risk, and options risk. For definitions of these risks, see section IX. of Appendix B following the final rule text below.

B. **Why is NCUA Amending the Existing Rule?** In the past, NCUA issued guidance on asset/liability management and IRR management in *Letters to Credit Unions*.³ NCUA believes federally-insured credit unions ("FICUs"), relying on this guidance, generally have managed their IRR adequately. However, FICUs have recently experienced increasing exposure to IRR due to changes in balance sheet composition and increased uncertainty in the financial markets. This increase has heightened the importance for FICUs to have strong policies and programs explicitly addressing the credit union's management of controls for IRR.

Therefore, it is both timely and appropriate to require certain credit unions to have a formal policy addressing IRR management and a corresponding

³ Letters to Credit Unions: 99-CU-12, Real Estate Lending and Balance Sheet Risk Management, Aug. 1999; 00-CU-10, Asset Liability Management Examination Procedures, Nov. 2000; 00-CU-13, Liquidity and Balance Sheet Risk Management Dec. 2000; 01-CU-08, Liability Management - Highly Rate-Sensitive and Volatile Funding Sources, July 2001; 01-CU-19, Managing Share Inflows in Uncertain Times, Oct. 2001; 03-CU-11, Non-Maturity Shares and Balance Sheet Risk, July 2003; 03-CU-15, Real Estate Concentrations and Interest Rate Risk Management for Credit Unions with Large Positions in Fixed-Rate Mortgage Portfolios, Sept. 2003; 06-CU-16, Interagency Guidance on Nontraditional Mortgage Product Risk, Oct. 2006; 10-CU-06, Interagency Advisory on Interest Rate Risk Management, Jan. 6, 2010. NCUA plans to issue a Letter to Credit Unions addressing the "Interagency Advisory on Interest Rate Risk Management, Frequently Asked Questions" that was issued on January 12, 2012.

program to effectively implement that policy. Further, it is incumbent upon NCUA, as steward of the National Credit Union Share Insurance Fund (“the Fund”), to consider a credit union’s IRR management policy and implementation program as a factor in determining whether the Fund should insure its member deposits.

C. **What Were the Requirements of the Proposed Rule?** The existing regulation on insurability of accounts prescribes certain criteria NCUA must consider in “determining the insurability of a credit union . . . and in continuing the insurability of its accounts.” 12 C.F.R. 741.3. Among the “factors . . . to be considered in determining whether the credit union’s financial condition and policies are both safe and sound,” are the existence of written lending and investment policies. *Id.* §741.3(b)(2)-(3). IRR management policies and practices are absent from the existing factors.

In response to credit unions’ increasing exposure to IRR, NCUA issued a proposed rule in March 2011 amending section 741.3(b) to require, as an additional factor in determining whether a “credit union’s financial condition and policies are both safe and sound,” the existence of a written policy on IRR management and a program to effectively implement that policy (together “an IRR policy and program”). 76 FR 16570 (Mar. 24, 2011). The proposed rule set an effective date for compliance at three months after the publication of the final rule in the Federal Register.

As proposed, the rule would apply to two categories of FICUs, a) those having more than \$50 million in assets; and b) those having assets between \$10

million and \$50 million whose ratio of first mortgage loans, plus investments with maturities greater than five years (the numerator), equals or exceeds 100% of its net worth (the denominator). This ratio is known as the “Supervisory Interest Rate Risk Threshold Ratio” (“SIRRT ratio”) and is explained in section II.D. of this preamble. Conversely, the rule would not apply to FICUs with assets of less than \$10 million, or to those with assets between \$10 million and \$50 million whose combined first mortgage loans, plus investments with maturities greater than five years, are *less than* 100% of its net worth.

To help credit unions understand and meet NCUA’s expectations for compliance with amended section 741.3(b), the proposed rule included an appendix (“Appendix B”) setting forth comprehensive guidance on developing both a written policy on IRR management and a program to effectively implement that policy.⁴ Appendix B acknowledges that it is not possible to establish a “one-size-fits-all” template of IRR management standards and metrics that would be appropriate for all FICUs. Rather, it recognizes that IRR management requires specialized judgments based on each credit union’s business objectives and ability to withstand risk.

Appendix B leaves to each affected credit union’s board of directors the obligation and responsibility to make those judgments. Yet, it also provides them a framework of five fundamental elements of an effective IRR management

⁴ NCUA plans to introduce a new IRR questionnaire that corresponds to Appendix B of the final rule to replace the IRR questionnaire presently used by examiners. The present questionnaire is located on NCUA’s website at: <http://www.ncua.gov/Resources/CUs/ALM/Pages/ALMReview.aspx>.

program: a comprehensive, written IRR policy; accountable IRR oversight by board of directors and management; appropriate IRR measurement and monitoring systems; good internal controls; and informed decision-making based on IRR measurement system results. It also provides guidelines for determining the adequacy of IRR policy and effectiveness of implementation program. The appendix also includes guidance for large credit unions with complex or high-risk balance sheets.

II. Subject-by-Subject Discussion of Comments on Proposed Rule

The proposed rule was issued with a 60-day comment period that expired on May 23, 2011. 76 FR 16570. NCUA received 48 comment letters in response—29 from federally-insured credit unions, 13 from credit union industry trade associations, one from an association of state credit union supervisory authorities, and 5 from industry consultants. Five commenters affirmatively supported the proposed rule; 29 commenters either opposed the rule or did not state a definitive position; and 14 commenters addressed particular aspects of the rule or made suggestions for improving it. The comments on the proposed rule are addressed as follows:

A. Authority to Impose Insurability Criteria. A trade association compared the existing insurability factors requiring a lending policy and an investment policy with the proposed requirement for an IRR management policy and implementation program. This commenter distinguished between lending and investment authorities and limitations that are “specifically detailed in the

Federal Credit Union Act” and the authority to require IRR management, which it contends “is a regulatory directive and is not addressed in the Act.” The suggestion that there is authority in the Act to require the existing lending and investment policies but not to require an IRR management policy and implementation program is incorrect.⁵ The basis for both the existing and proposed factors for insurability is safety and soundness. As section 741.3(b) itself confirms, the “financial policies and conditions” it prescribes are “factors . . . to be considered in determining whether the credit union’s financial condition and policies are *both safe and sound*.”

B. Regulatory Burden and Duplication. A number of commenters said that requiring an IRR management policy and implementation program as insurability criteria imposes an excessive regulatory burden on credit unions, especially in the wake of the regulatory mandates imposed as a result of the Dodd-Frank Wall Street Reform and Consumer Protection Act, 12 U.S.C. 5301 *et seq.* Emphasizing this point, some commenters protested that other financial regulators have not introduced IRR management rules.

A number of commenters also noted that mechanisms to manage credit unions’ IRR already exist that are sufficient to monitor and assess shifts in IRR and to indicate when corrective action is warranted. For example, they cite interagency advisories, NCUA *Letters to Credit Unions*, and credit union

⁵ The Act itself *does* contain authority for adding the IRR policy and implementation program as an insurability criterion. Title II of the Act requires NCUA, when granting insurance to a federal or state credit union, to consider the applicant’s “history, financial condition and management policies,” 12 U.S.C. 1781(c)(1)(A), and to *deny* insurance if it finds that the applicant’s “financial condition and policies are unsafe or unsound.” *Id.* §1781(c)(2).

examinations themselves. See footnote 3 above. NCUA does not dispute the utility of these existing mechanisms, but does not agree that they are sufficient in an environment of increased risk exposure and interest rate volatility. As detailed in sections C. and D. below in this preamble, IRR exposure at credit unions is on the rise to the point that it is higher than at peer commercial banks.

It is unclear that the numerous *Letters to Credit Unions* NCUA has periodically issued, providing supervisory advice and guidance on IRR management, has led to improvements in IRR management that are sufficient to meet the growing risk exposure and increasing interest rate volatility. Appendix B to the final rule is intended to complement the existing guidance by providing a framework for each credit union to develop its own definitive IRR policy and program. Accordingly, the final rule adopts as timely and prudent the proposed requirements for an IRR management policy and implementation program as additional criteria for insurability.

C. Need for Interest Rate Risk Policy and Program. A number of commenters asserted that NCUA has not demonstrated a need to require an IRR management policy and implementation program beyond the conclusion that IRR exposure has increased. One commenter contended that the past performance of credit unions in managing net interest margins following periods of rising rates suggests that an IRR management policy and implementation program is unnecessary. Recent relevant data demonstrates otherwise.

NCUA compared IRR exposure since 1996 of credit unions versus commercial banks based on growth in real estate loans as a percentage of total

assets. At year-end 2010, residential mortgages accounted for 30.7% of credit union assets compared to only 18.4% at peer commercial banks. In 1996, residential mortgages as a percent of total assets for both credit unions and banks were in the 15-20% range.⁶ While peer institutions have retreated from booking mortgage loans, credit unions have increased residential mortgage holdings and taken on more interest rate risk in the process.

Other NCUA data show the percent of credit unions with exposure to mortgages, and the median level of credit union IRR exposure to net worth by asset size cohort at year-end 2010, as depicted in Table 1:

Table 1:⁷

Asset size cohort	% Credit Unions with Exposure		Median Exposure/Net Worth	
	First mortgages	Residential mortgages repricing >5 years	First mortgages	Residential mortgages repricing >5 years
<\$10 million	19.0%	26.0%	0.0%	0.0%
\$10 to \$50 million	72.9%	81.5%	56.4%	69.9%
\$50 to \$100 million	96.1%	96.7%	140.1%	128.6%

Each of these measures indicates that the risk from changing interest rates to credit unions with long-term fixed cash flows increases with asset size and the escalation occurs most significantly in the \$10 million to \$50 million asset cohort.

⁶ See "Interest Rate Risk Proposal Gets Ahead of the Curve," *The NCUA Report* (Apr. 2011, No. 4). This article concluded that the IRR exposure of federally insured credit unions has risen steeply since 1996 relative to peer commercial banks.

⁷ See "Size Matters: Another Perspective on IRR," *The NCUA Report* (June 2011, No 6).

Credit unions can use sales of real estate loans originated to reduce IRR exposure on their balance sheets. In that regard, a trade association commented that credit unions' sales of first mortgage originations during the current interest rate cycle have increased from 25-30% of first mortgage loans granted to over 50%. The trade association argued that credit unions manage their net interest margin in this and other ways. The commenter noted that following a 300 basis point increase in the Fed funds rate in 1994 and a 425 basis point increase in 2004-2006, credit union net interest margins fell only by 1 basis point in 1995, by 15 basis points in 2005, and by 11 basis points in 2006.

Credit unions can manage net interest margins, for example, by means of share deposit pricing. On this point, the commenter also suggested the Federal Reserve is not expected to raise interest rates quickly. The commenter also asserted that liquidity at credit unions might allow them to offset IRR exposure due to their record levels of long-term assets by raising deposit rates more slowly. NCUA notes that in January 2012 the Federal Reserve indicated that it expected economic conditions to warrant keeping the federal funds rate at exceptionally low levels at least through late 2014.

NCUA acknowledges the aggregate upward trend over the long term in credit unions' sales of first mortgage real estate loans that they originated. Most recently, the percentage of first mortgage real estate loans sold fell to 44.8% of loans granted year to date in the 3rd quarter of 2011, but this was from a high for the full year of 51.9% in 2010. NCUA notes that the present 44.8% level remains significantly greater than the most recent low point of 26.3% of loans sold for the

year in 2007. The increase is concentrated in the largest credit unions, however. For example, the percentage of first mortgage real estate loans sold in the \$10 million to \$50 million asset cohort was 16.0% of first mortgage real estate loans granted at credit unions year to date in the 3rd quarter of 2011, and 14.5% of first mortgage real estate loans granted for the year in December 2007.

NCUA also acknowledges that credit unions use deposit interest rates to mitigate the impact of increases in short-term rates on their net interest margin. Understanding IRR requires taking into account the historical levels of interest rates. Short-term rates presently are 500 basis points below 2006-2007 levels, and any return even to average long-term rates is likely to stress credit unions' ability to manage such a change in the level of interest rates. Reluctance to increase deposit interest rates sufficiently in an effort to enhance earnings and mitigate interest rate risk could trigger unexpected deposit outflows and thereby increase a credit union's liquidity risk.

All these indicators of IRR exposure point to heightened risk for credit unions. While acknowledging that credit unions act in various ways to manage IRR, the consistent rise in IRR at credit unions relative to other peer institutions deserves regulatory attention and is warranted as a prerequisite for insurability.

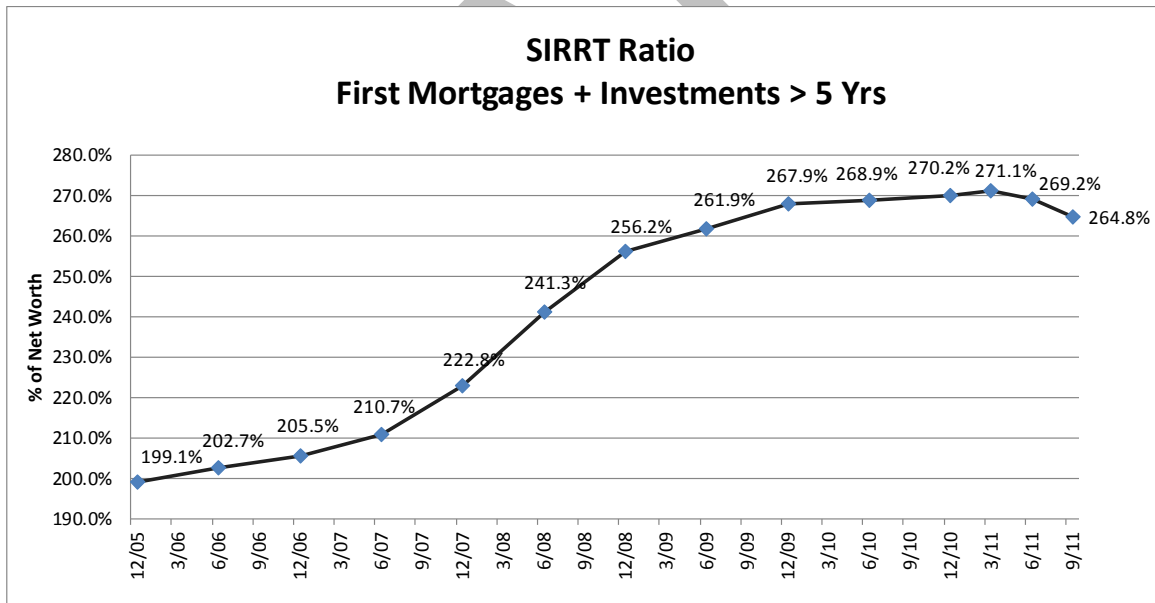
D. Supervisory Interest Rate Risk Threshold (SIRRT). For credit unions in the asset cohort of \$10 million to \$50 million, the proposed and final rules rely on the SIRRT ratio as a reliable indicator of IRR concentration:

$$\frac{\text{Total first mortgages held} + \text{Total Investments with maturities greater than 5 years}}{\text{Total Net Worth}}$$

A credit union in that asset cohort must develop and adopt an IRR policy and program only if its SIRRT ratio *equals or exceeds* 100% of its net worth, *i.e.*, a ratio of 1:1. The rule does not require a credit union with assets under \$10 million to develop and adopt an IRR policy and program, regardless of its SIRRT.

NCUA has tracked the SIRRT ratio among the population of FICUs as an aggregate percentage of their net worth from 2005 (when Call Reports started to break out investment maturities at 5 years) to September 2011. Table 2 below depicts this aggregate ratio:

Table 2:



As previously discussed, the percentage of residential real estate loans declined from a high point of almost 35% of assets in 2008 to 30.7% of assets in 2010. See footnote 6 above. However, this does not take into account the movement of FICU assets into long-term investments since 2008, as the growth

in consumer demand for mortgage loans slowed during this recessionary period. When these elements are included, as Table 2 shows, the SIRRT ratio increased from 256.2% of net worth in 2008 to a high of 271.1% in March 2011. The ratio declined to 264.8% in September 2011. Nonetheless, since 2005, the ratio has increased from 199.1%. In sum, credit union assets that present the highest IRR exposure have increased relative to credit union net worth and have reached a significantly higher level. The IRR exposure levels depicted by the data also indicate that credit unions' net interest margin performance, as previously discussed, does not eliminate the need for an IRR policy and IRR management program.

Several commenters questioned the components of the SIRRT numerator. Some advocated limiting the maturity of first mortgages to match the 5-year maturity limit of investments. Others supported excluding adjustable rate mortgages from the numerator. One commenter argued that the numerator should distinguish between fixed-rate and variable-rate loans.

NCUA does not believe the components of the numerator of the SIRRT ratio should be changed. Adjustable rate mortgages carry modeling risk because these loans are complex. Specifically, they have periodic and lifetime caps with varying reset dates and margins that must be incorporated to reflect risk. These complex mortgages should therefore be included in the SIRRT ratio.

A number of commenters addressed the asset size thresholds for subjecting credit unions to the IRR policy and program. Of these, several favored raising the asset "floor" to \$20 million and \$50 million, respectively, thus

excluding credit unions below the “floor.” One commenter criticized use of asset thresholds altogether, asserting that IRR may be present in credit unions regardless of asset size. One commenter agreed that small credit unions should be excluded by adhering to the \$10 million asset “floor” originally proposed.

The comments on the SIRRT ratio overlook the fundamental reasons for reliance on the ratio. Net worth is the reserve of funds available to absorb the risks of a credit union, and it is therefore the best measure against which to gauge the credit union’s risk exposure. A credit union where the SIRRT ratio is at or over 1:1 is exposed to IRR at a heightened level. This requires additional attention by credit unions in the \$10 million to \$50 million asset cohort to their IRR policy and management program in order to manage this risk. At year-end 2010 in the \$10 million to \$50 million asset cohort, median first mortgages to net worth (56.4%) exceeded the median for all credit unions (35.0%). Additional NCUA data also shows at year-end 2010 that for credit unions in the \$10 million to \$50 million asset cohort with a SIRRT ratio at or above 1:1, median first mortgages to net worth was 179.9% of net worth, and median long-term residential mortgages repricing at or longer than five years to net worth was 148.1% of net worth. By comparison, credit unions in the \$10 million to \$50 million asset cohort with a SIRRT ratio below 1:1 have a 2.7% ratio of median first mortgages to net worth and a 28.5% ratio of median long-term residential mortgages to net worth. NCUA therefore concludes that the SIRRT ratio effectively partitions risk.

NCUA devised the SIRRT ratio's "floor" and "ceiling" thresholds to minimize regulatory burden and at the same time ensure adequate regulatory coverage of total credit union assets. Applying the thresholds to the \$10 million to \$50 million asset cohort achieves both of these objectives. Moreover, the data indicates that a credit union's IRR exposure as its assets grow is likely to occur at the \$10 million to \$50 million asset range. At year-end 2010, among the total population of FICUs, 3,184 credit unions had a SIRRT ratio equal to or exceeding 100% of their net worth, whereas 4,155 credit unions had a SIRRT ratio less than 100% of their net worth, thus minimizing regulatory burden. At the same time, applying the SIRRT ratio to the \$10 million to \$50 million asset cohort would have imposed the IRR policy and program requirement on 95.5% of credit union assets, or \$873.6 billion out of a total of \$914.4 billion in credit union assets.

NCUA reviewed data as of September 30, 2011 for purposes of the final rule. The SIRRT ratio is depicted in Table 3 for credit unions by asset cohort and it demonstrates the segregation of risk. As shown in Table 2 previously, the aggregate SIRRT ratio for all credit unions was 264.8%.

Table 3:

Credit Union SIRRT Ratio	<i>CU's Not Covered by Rule</i>	<i>CU's Covered by Rule</i>
<\$10 million	28.10%	N/A
\$10 to \$50 million	30.28%	226.53%
≥\$50 million	N/A	280.24%

The distribution of the number of credit unions not covered and covered by the rule is depicted in Table 4 and it shows that 1,316 credit unions in the \$10 to

\$50 Million asset cohort would not have been covered by the rule, and 54.8% of all credit unions would not have been covered by the rule.

Table 4:

Number of Credit Unions	# CU's Not Covered by Rule	# CU's Covered by Rule	Total
<\$10 million	2,617	0	2,617
\$10 to \$50 million	1,316	1,058	2,374
≥\$50 million	0	2,188	2,188
Total	3,933	3,246	7,179
% of Total	54.8%	45.2%	100%

The distribution of credit union assets not covered and covered by the rule is depicted in Table 5, which shows that 95.9% of all credit union assets would have been covered by the rule based on September 30, 2011 data.

Table 5:

Credit Union Assets	CU Assets Not Covered by Rule (\$ Billion)	CU Assets Covered by Rule (\$ Billion)	Total (\$ Billion)
<\$10 million	10.23	0.00	10.23
\$10 to \$50 million	28.99	28.66	57.65
≥\$50 million	0.00	883.27	883.27
Total	39.22	911.93	951.15
% of Total	4.1%	95.9%	100%

Accordingly, the proposed \$10 million “floor” and the proposed \$50 million “ceiling” thresholds as applied to the SIRRT ratio continue to provide effective segregation of risk while reasonably minimizing regulatory burden.

E. Application of the Rule. Many commenters expressed concern about how the proposed rule would be applied in practice. Several observed that it would impose a “one-size-fits-all” set of IRR policies, or be used as a checklist by examiners, or viewed by examiners as a mandate, or inhibit the flexibility of credit unions, thereby allowing examiners to micro-manage them. A number of commenters were concerned that examiners would apply the rule subjectively, leading to “generic standards.” Others predicted that examiners would rely on peer data and simplified assumptions. Finally, several noted the absence from the rule of an express definition of what constitutes an “effective program.”

It is not the intent of the rule for examiners to subjectively impose unduly standardized supervisory oversight. Examiners will be expected to apply the standards within a consistent framework based on their knowledge of each credit union’s operations and available resources. While the rule itself does not define what is an “effective program,” the guidance in Appendix B does. It provides that “an effective IRR management program identifies, measures, monitors, and controls IRR and is central to safe and sound credit union operations.” Further, as the preamble to the proposed rule also recognized: “it is impossible to establish specific, regulatory requirements for IRR that would be appropriate for all FICUs. IRR management involves judgment by a FICU based on its own individual mission, structure, and circumstances. Any rule must take into account the diversity of FICUs and avoid a one-size-fits-all approach. Accordingly, FICUs should devise a policy and risk management program appropriate to their own

situation.” 76 FR at 16571. The NCUA Board reaffirms the notion that IRR management must be individualized, while subject to regulatory oversight and prudent insurability standards.

NCUA acknowledges that using simplifying assumptions to apply the rule involves a certain degree of subjectivity, but believes this is a necessary part of the supervision process. Any assumption used to aggregate data or categorize financial instruments can be a simplifying assumption. However, NCUA does not take issue with using such assumptions or generic standards so long as these are consistent with the best practices described in the January 2010 FFIEC Advisory on Interest Rate Risk Management and take into account the size, complexity and risk exposure of the credit union. NCUA recognizes the use of peer data may be appropriate. Simplifying assumptions are part of the practice of IRR management and are an issue only when they cause either credit union management or an examiner to underestimate complexity. For example, a credit union may use simplifying assumptions in the process of modeling IRR, and these can be acceptable so long as they do not cause interest rate risk to be misstated.

To address consistency of application NCUA plans to issue guidance and training for examiners, including a questionnaire that is tailored specifically to this rule. See footnote 4 above. The commentary in the questionnaire emphasizes that the guidance items are not mandatory. Credit unions are encouraged to review and discuss these guidance items with their examiners.

F. Guidance on IRR Policy and Program. A number of commenters made observations about the role of the specific guidance in Appendix B to the rule. Of these, one commenter asked whether Appendix B supersedes existing guidance on IRR management. One recommended publishing Appendix B on the NCUA website when it is adopted. Another recommended updating the *Examiners Guide* to include the guidance in Appendix B.

NCUA does not intend Appendix B to supplant existing advice on specific aspects of IRR management. Existing NCUA *Letters to Credit Unions* address specific aspects of IRR such as real estate lending, liquidity, rate-sensitive funding sources, and non-maturity shares. These *Letters to Credit Unions* are consistent with the practices set forth in Appendix B and credit unions should continue to heed the advice they give. See footnote 3 above. The guidance in Appendix B is also complementary to the 2010 Interagency Advisory on Interest Rate Risk Management and the 2012 Interagency Advisory on Interest Rate Risk Management, Frequently Asked Questions. NCUA will continue to issue *Letters to Credit Unions* relating to IRR management as necessary and will update the *Examiners Guide* accordingly.

A number of commenters addressed technical aspects of IRR measurement methods. Of these, some said Appendix B implied a preference for the valuation of non-maturity shares at par. One said that credit unions should be free to choose their own method. One noted the selection of curves for discounting is debatable. One said a credit union offering rate is the most defensible reinvestment rate. One said that IRR measures using changes in

rates might not fully reflect the level of IRR. One said that 300 basis point shocks should not be an industry standard for the rule. One said that parallel shock analysis is not realistic. One recommended semiannual IRR testing in an IRR management program.

NCUA responds to these and similar technical comments by reiterating that it does not seek to endorse certain IRR measures, measurement techniques, or assumptions over others. For example, NCUA does not prescribe valuing non-maturity shares at par but it acknowledges that such measures and the use of historical rate scenarios may provide useful information. Similarly, NCUA does not require discounting on yield curves or endorse any particular discount rate. NCUA does recommend the use of pro forma risk measurement and the discipline of utilizing relevant stress tests to better understand IRR and to be aware of the scenarios that would have the most detrimental impact on earnings, net worth, or net economic value. Base values of balance sheet instruments are as integral to stating risk exposure as stressed results. Testing should be as frequent as needed for a credit union to be fully aware of its IRR exposure and semi-annual IRR testing may not be sufficient to manage IRR.

Several more commenters made observations on the separation of credit union responsibilities with respect to IRR. Of these, two commented on the separation of risk taking and risk management. One of these recommended that NCUA provide examples to suggest appropriate separation of duties, and another one said that separation would be burdensome.

NCUA does not believe this section of Appendix B on policy, board oversight and credit union structure needs to be amended. The proposed rule suggested that credit unions should separate risk-taking and risk measurement functions “if possible”, particularly in the case of large, complex or high-risk credit unions. In the case of large, complex or high-risk credit unions, the final rule already provides an example of separating the investment function from the IRR measurement function, e.g. having the IRR measurement function report to an audit or supervisory committee. However, it is not the function of this rule to prescribe specific organizational structures.

G. Alternatives to the Proposed Rule. A number of commenters suggested that NCUA should focus on the 800 credit unions that lack an IRR policy instead of the estimated 75% of credit unions that have such policies in place. NCUA does not agree. The data introduced earlier indicates that IRR overall is at an unprecedented level; it is not limited to a small subset of credit unions.

Attempting to balance flexibility with regulatory concerns, one commenter suggested that an effective IRR program would be one that takes assets and liabilities into account, requires management reports to the board, and performs tests as directed by regulators. NCUA agrees that any rulemaking that addresses IRR should be crafted to not limit credit union flexibility, while still considering regulatory concerns. For this reason, the guidance in Appendix B is flexible. At the same time, shifting interest rates pose a core risk that could jeopardize the liquidity and solvency of credit unions. The steady increase in this exposure to

interest rate changes warrants a high level of attention by management and oversight by NCUA and state supervisory authorities. The Board therefore believes that an IRR policy and an effective IRR management program must be implemented by regulation and should not be left solely to the supervisory process.

H. Effective Date and Implementation of Final Rule. The proposed rule prescribed a period of three months between publication of the final rule and its effective date for credit unions to comply with the rule's new requirements. A number of commenters urged making the acclimation period longer than three months and some recommended a phase-in period of as long as one year. In view of these comments, NCUA has reassessed the steps and the time it will take both affected credit unions and itself to acclimate to the final rule.

Balancing its concern for a timely response to interest rate risk issues against its objective to ensure careful implementation of the final rule, the Board has decided to modify the effective date of the final rule to September 30, 2012.

III. Regulatory Procedures

A. Regulatory Flexibility Act. The Regulatory Flexibility Act requires NCUA to prepare an analysis to describe any significant economic impact a rule may have on a substantial number of small entities (primarily those credit unions with less than ten million dollars in assets). By its terms, the final rule's requirement to develop a written IRR management policy and a program to effectively implement the policy do not apply to credit unions with less than \$10

million in assets. Accordingly, this final rule will not have a significant economic impact on a substantial number of small credit unions and a Regulatory Flexibility Analysis is not warranted.

B. Paperwork Reduction Act. This final rule requires certain credit unions to develop, as prerequisites for insurability of its member deposits, a written IRR management policy (“an IRR policy”) and a program to effectively implement the policy. The Paperwork Reduction Act of 1995 (“PRA”) applies to rulemakings in which an agency by rule creates a new paperwork burden on regulated entities or modifies an existing burden. 44 U.S.C. 3507(d). For purposes of the PRA, a paperwork burden may take the form of either a reporting or a recordkeeping requirement, both referred to as information collections. NCUA has determined that the requirement to develop an IRR policy creates a new information collection requirement. As required, NCUA has applied to the Office of Management and Budget (“OMB”) for approval of the information collection requirement described below.

The final rule requires two categories of credit unions to develop an IRR policy and program: those having more than \$50 million in assets; and those having assets between \$10 million and \$50 million whose combined first mortgage loans, plus investments with maturities greater than five years, equal or exceed 100% of net worth. As of September 30, 2011, 3,246 FICUs (45% of all FICUs) fell in either of these two categories. NCUA estimates, however, that 2,446 of the affected FICUs (or approximately 75% of them) already have an IRR policy in place; they will need only to review the existing IRR policy, and make

appropriate adjustments where necessary, to comply with the final rule. The other 800 affected FICUs (approximately 25% of them) will need to newly develop an IRR policy. Periodic review of an existing IRR policy should require minimal or no additional burden.

The final rule is accompanied by an Appendix setting forth comprehensive guidance on developing both an IRR policy and program. The guidance specifies eight policy items that must be addressed. See section II of Appendix B following rule text below. The length of an IRR management policy covering these eight policy elements will vary according to the credit union's business strategies. A credit union offering basic share accounts and short-term loans but no mortgage loans, and that makes relatively simple investments, should be able to develop a basic IRR policy in one to two hours that establishes, for example, maturity limits for loans, the minimum amount of short-term funds, and the range of permissible investments. In contrast, credit unions with more complex balance sheets, especially those containing mortgage loans and complex investments, may warrant a more comprehensive IRR management policy that requires additional time to produce.

NCUA estimates that addressing the eight policy items will each entail an equal time burden of two hours. The maximum time for all segments of an IRR policy is therefore estimated at 16 hours. In turn, the aggregate information collection burden for affected credit unions to comply with the rule is estimated 12,800 hours (800 credit unions x 16 hours).

The proposed rule noted that organizations and individuals wishing to comment on this information collection requirement should direct their comments to the Office of Information and Regulatory Affairs, OMB, Attn: Shagufta Ahmed, Room 10226, New Executive Office Building, Washington, DC 20503, with a copy to Mary Rupp, Secretary of the Board, National Credit Union Administration, 1775 Duke Street, Alexandria, Virginia 22314-3428.

The sole commenter in response to the proposed rule contended that the estimate of 16 hours to complete an IRR policy understates the time it takes to collect the information, establish limits and review the data. That commenter offered no alternative estimate.

NCUA considers public comments on the collection of information in:

- Evaluating whether the collection of information is necessary for the proper performance of the functions of the NCUA, including whether the information will have a practical use;
- Evaluating the accuracy of the NCUA's estimate of the burden of the collection of information, including the validity of the methodology and assumptions used;
- Enhancing the quality, usefulness, and clarity of the information to be collected; and
- Minimizing the burden of collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or

other forms of information technology; e.g., permitting electronic submission of responses.

OMB assigned No. 3133-0184 to this rulemaking.

C. Executive Order 13132. Executive Order 13132 encourages independent regulatory agencies to consider the impact of their actions on state and local interests. In adherence to fundamental federalism principles, NCUA, an independent regulatory agency as defined in 44 U.S.C. 3502(5), voluntarily complies with the Executive Order. This rule will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, this rule does not constitute a policy that has federalism implications for purposes of the executive order.

D. The Treasury and General Government Appropriations Act, 1999-- Assessment of Federal Regulations and Policies on Families. The NCUA has determined that this rule will not affect family well-being within the meaning of the Treasury and General Government Appropriations Act, Pub. L. No. 105-277, 112 Stat. 2681 (1998).

E. Small Business Regulatory Enforcement Fairness Act. The Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121) (SBREFA) provides generally for congressional review of agency rules. A reporting requirement is triggered in instances where NCUA issues a final rule as

defined by section 551 of the APA. 5 U.S.C. 551. The Office of Management and Budget has determined that this rule is not a major rule for purposes of SBREFA. As required by SBREFA, NCUA will file the appropriate reports with Congress and the General Accounting Office so this rule may be reviewed.

List of Subjects in 12 CFR part 741

Credit unions, Requirements for insurance.

By the National Credit Union Administration Board on January 26, 2012.

Mary F. Rupp

Secretary of the Board

For the reasons set forth above, NCUA amends 12 CFR part 741 as follows:

PART 741—REQUIREMENTS FOR INSURANCE

1. The authority citation for part 741 continues to read:

Authority: 12 U.S.C. 1757, 1766(a), 1781-1790 and 1790d; 31 U.S.C. 3717.

2. In §741.3, add paragraph (b)(5) to read as follows:

§741.3 Criteria

* * * * *

(b) * * *

(5)(i) The existence of a written interest rate risk policy (IRR policy”) and an effective interest rate risk management program (“effective IRR program”) as part of asset liability management in all Federally- insured credit unions (“FICU”) as follows. All measurements are based on the most recent Call Report filing of the FICU.

(A) A FICU with assets of more than \$50 million must adopt a written IRR policy and implement an effective IRR program;

(B) A FICU with assets of \$10 million or more but not greater than \$50 million must adopt a written IRR policy and implement an effective IRR program if the total of first mortgage loans it holds combined with total investments with maturities greater than five years, as reported by the FICU on its most recent Call Report, is equal to or greater than 100% of its net worth (i.e., a 1:1 ratio);

(C) A FICU with assets \$10 million or more but not greater than \$50 million are not required to comply with this subparagraph if the total of first mortgage loans it holds, combined with total investments with maturities greater than five years, is less than 100% of its net worth (i.e., a 1:1 ratio); and

(D) A FICU with less than \$10 million in assets is not required to comply with this subparagraph regardless of the amount of first mortgage loans and total investments with maturities greater than five years it holds.

(ii) For purposes of subparagraph (b)(5)(i) of this section—

(A) A FICU is considered to hold a first mortgage loan for its own portfolio when it has not demonstrated the intent and ability to sell the loan to an independent third party within 120 days of origination;

(B) Investments are defined in section 703.2 of this chapter. Investments with maturities greater than five years are defined as those reported by the FICU on the Call Report; and

(C) Appendix B to this Part 741 provides guidance on how to develop an IRR policy and an effective IRR program. The guidance describes widely-accepted best practices in the management of interest rate risk for the benefit of all FICUs.

* * * * *

3. Part 741 is amended by adding Appendix B to read as follows:

APPENDIX B to Part 741

Guidance for an Interest Rate Risk Policy and an Effective Program

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- IX. Definitions

I. Introduction

This appendix provides guidance to FICUs in developing an interest rate risk (IRR) policy and program that addresses aspects of asset liability management in a single framework. An effective IRR management program identifies, measures, monitors, and controls IRR and is central to safe and sound credit union operations. Given the differences among credit unions, each credit union

should use the guidance in this appendix to formulate a policy that embodies its own practices, metrics and benchmarks appropriate to its operations.

These practices should be established in light of the nature of the credit union's operations and business, as well as its complexity, risk exposure, and size. As these elements increase, NCUA believes the IRR practices should be implemented with increasing degrees of rigor and diligence to maintain safe and sound operations in the area of IRR management. In particular, rigor and diligence are required to manage complexity and risk exposure. Complexity relates to the intricacy of financial instrument structure, and to the composition of assets and liabilities on the balance sheet. In the case of financial instruments, the structure can have numerous characteristics that act simultaneously to affect the behavior of the instrument. In the case of the balance sheet, which contains multiple instruments, assets and liabilities can act in ways that are compounding or can be offsetting because their impact on the IRR level may act in the same or opposite directions. High degrees of risk exposure require a credit union to be diligently aware of the potential earnings and net worth exposures under various interest rate and business environments because the margin for error is low.

A. Complexity

In influencing the behavior of instruments and balance sheet composition, complexity is a function of the predictability of the cash flows. As cash flows become less predictable, the uncertainty of both instrument and balance sheet

behavior increases. For example, a residential mortgage is subject to prepayments that will change at the option of the borrower. Mortgage borrowers may pay off their mortgage loans due to geographical relocation, or may increase the amount of their monthly payment above the minimum contractual schedule due to other changes in the borrower's circumstances. This cash flow unpredictability is also found in investments, such as collateralized mortgage obligations, because these contain mortgage loans. Additionally, cash flow unpredictability affects liabilities. For example, nonmaturity share balances vary at the discretion of the depositor making deposits and withdrawals, and this may be influenced by a credit union's pricing of its share accounts.

B. IRR Exposure

Exposure to IRR is the vulnerability of a credit union's financial condition to adverse movements in market interest rates. Although some IRR exposure is a normal part of financial intermediation, a high degree of this exposure may negatively affect a credit union's earnings and net economic value. Changes in interest rates influence a credit union's earnings by altering interest-sensitive income and expenses (e.g. loan income and share dividends). Changes in interest rates also affect the economic value of a credit union's assets and liabilities, because the present value of future cash flows and, in some cases, the cash flows themselves may change when interest rates change. Consequently, the management of a credit union's pricing strategy is critical to the control of IRR exposure.

All FICUs required to have an IRR policy and program should incorporate the following five elements into their IRR program:

1. Board-approved IRR policy.
2. Oversight by the board of directors and implementation by management.
3. Risk measurement systems assessing the IRR sensitivity of earnings and/or asset and liability values.
4. Internal controls to monitor adherence to IRR limits.
5. Decision making that is informed and guided by IRR measures.

II. IRR Policy

The board of directors is responsible for ensuring the adequacy of an IRR policy and its limits. The policy should be consistent with the credit union's business strategies and should reflect the board's risk tolerance, taking into account the credit union's financial condition and risk measurement systems and methods commensurate with the balance sheet structure. The policy should state actions and authorities required for exceptions to policy, limits, and authorizations.

Credit unions have the option of either creating a separate IRR policy or incorporating it into investment, ALM, funds management, liquidity or other policies. Regardless of form, credit unions must clearly document their IRR policy in writing.

The scope of the policy will vary depending on the complexity of the credit union's balance sheet. For example, a credit union that offers short-term loans, invests in non-complex or short-term bullet investments (i.e. a debt security that returns 100 percent of principal on the maturity date), and offers basic share products may not need to create an elaborate policy. The policy for these credit unions may limit the loan portfolio maturity, require a minimum amount of short-term funds, and restrict the types of permissible investments (e.g. Treasuries, bullet investments). More complex balance sheets, especially those containing mortgage loans and complex investments, may warrant a comprehensive IRR policy due to the uncertainty of cash flows.

The policy should establish responsibilities and procedures for identifying, measuring, monitoring, controlling, and reporting IRR, and establish risk limits. A written policy should:

- Identify committees, persons or other parties responsible for review of the credit union's IRR exposure;
- Direct appropriate actions to ensure management takes steps to manage IRR so that IRR exposures are identified, measured, monitored, and controlled;
- State the frequency with which management will report on measurement results to the board to ensure routine review of information that is timely

(e.g. current and at least quarterly) and in sufficient detail to assess the credit union's IRR profile;

- Set risk limits for IRR exposures based on selected measures (e.g. limits for changes in repricing or duration gaps, income simulation, asset valuation, or net economic value);
- Choose tests, such as interest rate shocks, that the credit union will perform using the selected measures;
- Provide for periodic review of material changes in IRR exposures and compliance with board approved policy and risk limits;
- Provide for assessment of the IRR impact of any new business activities prior to implementation (e.g. evaluate the IRR profile of introducing a new product or service); and
- Provide for at least an annual evaluation of policy to determine whether it is still commensurate with the size, complexity, and risk profile of the credit union.

IRR policy limits should maintain risk exposures within prudent levels. Examples of limits are as follows:

GAP: less than +/- 10 percent change in any given period, or cumulatively over 12 months.

Income Simulation: net interest income after shock change less than 20 percent over any 12-month period.

Asset Valuation: after shock change in book value of net worth less than 50

percent, or after shock net worth of 4 percent or greater.

Net Economic Value: after shock change in net economic value less than 25 percent, or after shock net economic value of 6 percent or greater.

NCUA emphasizes these are only for illustrative purposes, and management should establish its own limits that are reasonably supported. Where appropriate, management may also set IRR limits for individual portfolios, activities, and lines of business.

III. IRR Oversight and Management

A. Board of Directors Oversight

The board of directors is responsible for oversight of their credit union and for approving policy, major strategies, and prudent limits regarding IRR. To meet this responsibility, understanding the level and nature of IRR taken by the credit union is essential. Accordingly, the board should ensure management executes an effective IRR program.

Additionally, the board should annually assess if the IRR program sufficiently identifies, measures, monitors, and controls the IRR exposure of the credit union.

Where necessary, the board may consider obtaining professional advice and training to enhance its understanding of IRR oversight.

B. Management Responsibilities

Management is responsible for the daily management of activities and operations. In order to implement the board's IRR policy, management should:

- Develop and maintain adequate IRR measurement systems;
- Evaluate and understand IRR risk exposures;
- Establish an appropriate system of internal controls (e.g. separation between the risk taker and IRR measurement staff);
- Allocate sufficient resources for an effective IRR program. For example, a complex credit union with an elevated IRR risk profile will likely necessitate a greater allocation of resources to identify and focus on IRR exposures;
- Develop and support competent staff with technical expertise commensurate with the IRR program;
- Identify the procedures and assumptions involved in implementing the IRR measurement systems; and
- Establish clear lines of authority and responsibility for managing IRR; and
- Provide a sufficient set of reports to ensure compliance with board approved policies.

Where delegation of management authority by the board occurs, this may be to designated committees such as an asset liability committee or other equivalent. In credit unions with limited staff, these responsibilities may reside with the board or management. Significant changes in assumptions, measurement methods,

tests performed, or other aspects involved in the IRR process should be documented and brought to the attention of those responsible.

IV. IRR Measurement and Monitoring

A. Risk Measurement Systems

Generally, credit unions should have IRR measurement systems that capture and measure all material and identified sources of IRR. An IRR measurement system quantifies the risk contained in the credit union's balance sheet and integrates the important sources of IRR faced by a credit union in order to facilitate management of its risk exposures. The selection and assessment of appropriate IRR measurement systems is the responsibility of credit union boards and management.

Management should:

- Rely on assumptions that are reasonable and supportable;
- Document any changes to assumptions based on observed information;
- Monitor positions with uncertain maturities, rates and cash flows, such as nonmaturity shares, fixed rate mortgages where prepayments may vary, adjustable rate mortgages, and instruments with embedded options, such as calls; and
- Require any interest rate risk calculation techniques, measures and tests to be sufficiently rigorous to capture risk.

B. Risk Measurement Methods

The following discussion is intended only as a general guide and should not be used by credit unions as an endorsement of a particular method. An IRR measurement system may rely on a variety of different methods. Common examples of methods available to credit unions are GAP analysis, income simulation, asset valuation, and net economic value. Any measurement method(s) used by a credit union to analyze IRR exposure should correspond with the complexity of the credit union's balance sheet so as to identify any material sources of IRR.

GAP Analysis

GAP analysis is a simple IRR measurement method that reports the mismatch between rate sensitive assets and rate sensitive liabilities over a given time period. GAP can only suffice for simple balance sheets that primarily consist of short-term bullet type investments and non mortgage-related assets. GAP analysis can be static, behavioral, or based on duration.

Income Simulation

Income simulation is an IRR measurement method used to estimate earnings exposure to changes in interest rates. An income simulation analysis projects interest cash flows of all assets, liabilities, and off-balance sheet instruments in a credit union's portfolio to estimate future net interest income over a chosen

timeframe. Generally, income simulations focus on short-term time horizons (e.g. one to three years). Forecasting income is assumption sensitive and more uncertain the longer the forecast period. Simulations typically include evaluations under a base-case scenario, and instantaneous parallel rate shocks, and may include alternate interest-rate scenarios. The alternate rate scenarios may involve ramped changes in rates, twisting of the yield curve, and/or stressed rate environments devised by the user or provided by the vendor.

NCUA Asset Valuation Tables

For credit unions lacking advanced IRR methods that seek simple valuation measures, the NCUA Asset Valuation Tables are available and prepared quarterly by the NCUA. These are available on the NCUA website through www.ncua.gov.

These measures provide an indication of a credit union's potential interest rate risk, based on the risk associated with the asset categories of greatest concern – (e.g., mortgage loans and investment securities).

The tables provide a simple measure of the potential devaluation of a credit union's mortgage loans and investment securities that occur during +/- 300 basis point parallel rate shocks, and report the resulting impact on net worth.

Net Economic Value (NEV)

NEV measures the effect of interest rates on the market value of net worth by calculating the present value of assets minus the present value of liabilities. This calculation measures the long-term IRR in a credit union's balance sheet at a fixed point in time. By capturing the impact of interest rate changes on the value of all future cash flows, NEV provides a comprehensive measurement of IRR. Generally, NEV computations demonstrate the economic value of net worth under current interest rates and shocked interest rate scenarios.

One NEV method is to discount cash flows by a single interest rate path. Credit unions with a significant exposure to assets or liabilities with embedded options should consider alternative measurement methods such as discounting along a yield curve (e.g. the U.S. Treasury curve, LIBOR curve) or using multiple interest rate paths. Credit unions should apply and document appropriate methods, based on available data (e.g. utilizing observed market values), when valuing individual or groups of assets and liabilities.

C. Components of IRR Measurement Methods

In the initial setup of IRR measurement, critical decisions are made regarding numerous variables in the method. These variables include but are not limited to the following.

Chart of Accounts

Credit unions using an IRR measurement method should define a sufficient number of accounts to capture key IRR characteristics inherent within their product lines. For example, credit unions with significant holdings of adjustable-rate mortgages should differentiate balances by periodic and lifetime caps and floors, the reset frequency, and the rate index used for rate resets. Similarly, credit unions with significant holdings of fixed-rate mortgages should differentiate at least by original term, e.g., 30 or 15-year, and coupon level to reflect differences in prepayment behaviors.

Aggregation of Data Input

As the credit union's complexity, risk exposure, and size increases, the degree of detail should be based on data that is increasingly disaggregated. Because imprecision in the measurement process can materially misstate risk levels, management should evaluate the potential loss of precision from any aggregation and simplification used in its measurement of IRR.

Account Attributes

Account attributes define a product, including: principal type, rate type, rate index, repricing interval, new volume maturity distribution, accounting accrual basis, prepayment driver, and discount rate.

Assumptions

IRR measurement methods rely on assumptions made by management in order to identify IRR. The simplest example is of future interest rate scenarios. The management of IRR will require other assumptions such as: projected balance sheet volumes; prepayment rates for loans and investment securities; repricing sensitivity, and decay rates of nonmaturity shares. Examples of these assumptions follow.

Example 1. Credit unions should consider evaluating the balance sheet under flat (i.e. static) and/or planned growth scenarios to capture IRR exposures. Under a flat scenario, runoff amounts are reinvested in their respective asset or liability account. Conducting planned growth scenarios allows management to assess the IRR impact of the projected change in volume and/or composition of the balance sheet.

Example 2. Loans and mortgage related securities contain prepayment options that enable the borrower to prepay the obligation prior to maturity. This prepayment option makes it difficult to project the value and earnings stream from these assets because the future outstanding principal balance at any given time is unknown. A number of factors affect prepayments, including the refinancing incentive, seasonality (the particular time of year), seasoning (the age of the loan), member mobility, curtailments (additional principal payments), and burnout (borrowers who don't respond to changes in the level of rates, and pay

as scheduled). Prepayment speeds may be estimated or derived from numerous national or vendor data sources.

Example 3. In the process of IRR measurement, the credit union must estimate how each account will reprice in response to market rate fluctuations. For example, when rates rise 300 basis points, the credit union may raise its asset or liability rates in a like amount or not, and may choose to lag the timing of its pricing change.

Example 4. Nonmaturity shares include those accounts with no defined maturity such as share drafts, regular shares, and money market accounts. Measuring the IRR associated with these accounts is difficult because the risk measurement calculations require the user to define the principal cash flows and maturity. Credit unions may assume that there is no value when measuring the associated IRR and carry these values at book value or par. Many credit unions adopt this approach because it keeps the measurement method simple.

Alternatively, a credit union may attribute value to these shares (i.e. premium) on the basis that these shares tend to be lower cost funds that are core balances by virtue of being relatively insensitive to interest rates. This method generally results in nonmaturity shares priced/valued in a way that will produce an increased net economic value. Therefore, the underlying assumptions of the shares require scrutiny.

Credit unions that forecast share behavior and incorporate those assumptions into their risk identification and measurement process should perform sensitivity analysis.

V. Internal Controls

Internal controls are an essential part of a safe and sound IRR program. If possible, separation of those responsible for the risk taking and risk measuring functions should occur at the credit union.

Staff responsible for maintaining controls should periodically assess the overall IRR program as well as compliance with policy. Internal audit staff would normally assume this role; however, if there is no internal auditor, management, or a supervisory committee that is independent of the IRR process, may perform this role. Where appropriate, management may also supplement the internal audit with outside expertise to assess the IRR program. This review should include policy compliance, timeliness, and accuracy of reports given to management and the board.

Audit findings should be reported to the board or supervisory committee with recommended corrective actions and timeframes. The individuals responsible for maintaining internal controls should periodically examine adherence to the policy related to the IRR program.

VI. Decision-making Informed by IRR Measurement Systems

Management should utilize the results of the credit union's IRR measurement systems in making operational decisions such as changing balance sheet structure, funding, pricing strategies, and business planning. This is particularly the case when measures show a high level of IRR or when measurement results approach board-approved limits.

NCUA recognizes each credit union has its own individual risk profile and tolerance levels. However, when measures of fair value indicate net worth is low, declining, or even negative, or income simulations indicate reduced earnings, management should be prepared to identify steps, if necessary, to bring risk within acceptable levels. In any case, management should understand and use their IRR measurement results, whether generated internally or externally, in the normal course of business. Management should also use the results proactively as a tool to adjust asset liability management for changes in interest rate environments.

VII. Guidelines for Adequacy of IRR Policy and Effectiveness of Program

The following guidelines will assist credit unions in determining the adequacy of their IRR policy and the effectiveness of their program to manage IRR.

Policy	
Board oversight	Policy is consistent with credit union strategy and balance sheet complexity, clearly defines board risk tolerances through reasonable interest rate risk limits, and states

	actions required to address policy exceptions.
Responsible parties identified	A committee or individual(s) is designated as being responsible for IRR management activities, including review and monitoring of IRR.
Direct appropriate action to measure, monitor, control IRR	Policy states all actions that are sufficient to manage IRR, including measurement and monitoring methods, and interest rate risk reduction alternatives.
Reporting frequency specified	Reporting of results is required with sufficient frequency and detail to alert management to emerging IRR.
Risk limits stated with appropriate measures	Clearly defined risk limits are established and are appropriate for the size and complexity of the credit union.
Tests for limits	Tests substantially display the level and range of credit union IRR.
Review of material IRR changes	Any changes beyond a stated level are reported to management and, where appropriate, the Board.
Impact of new business	IRR impact of all business initiatives (new products, lines of business, pricing changes) is required where these will affect future IRR.
Periodic policy review	Review by Board required at least annually to ensure continued relevance and applicability of policy to management of IRR.
IRR Oversight & Management	
Oversight	Board approves policy and strategies and understands IRR faced by its own credit union.
Oversight assessment of program effectiveness	Board periodically evaluates program effectiveness by monitoring management's IRR knowledge. Use of third-party professional advice is acceptable, but does not absolve the Board of its responsibility for informed and knowledgeable oversight and governance.
Choice of IRR measurement systems	Management selects and maintains systems that are able to capture the complexity of IRR risks. The systems used by the credit union must be able to capture IRR (e.g., balance sheet contains material options in investments, mortgage loans or core deposits - calls, prepayments, or administered rates).
Evaluation of IRR risk exposures	Credit union understands all material IRR exposures and evaluates these accordingly relative to credit union strategy. If management relies on outside parties to evaluate credit union's IRR, it must be able to explain the IRR measurement method or the results.
System of internal controls	Internal controls encompass and effectively evaluate programs that manage elements of IRR at the credit union. Internal audit has addressed the correction of IRR deficiencies (e.g. processes for tracking changes in measurement assumptions, such as repricing of core deposits).
IRR resource management	Credit union has allocated initial or additional qualified staff resources sufficient to properly measure and manage IRR by means that address sources of risk.
Expertise of IRR program staff	Staff responsible for IRR measurement and monitoring correctly identifies sources of IRR and can quantify these risks, and is knowledgeable about the operation and limitations of the IRR model, even if modeling is performed by a third party vendor.
Procedures and assumptions of IRR measurement systems	Credit union identifies reasonable procedures and is responsible for supportable assumptions, even if modeling is performed by a third party vendor.
Accountability of IRR management	Responsibility for managing IRR is specific and clearly delineated.
Transparency of changes in assumptions, methods and IRR tests.	Management requires clear disclosure of relevant changes in all material assumptions and methods.
IRR Measurement and Monitoring	
Reasonable and supportable assumptions	Credit union carefully evaluates all assumptions and assesses the sensitivity of results relative to each key assumption. Key assumptions should be demonstrated to be supportable (e.g. mortgage prepayments capture contraction and extension risk and core deposit premiums indicate reasonable maturities).
Assumption changes from observed information	All material changes in assumptions are based on tested internal data or reliable industry sources.
Rigor of calculations and conformity of concepts	Techniques used appropriately capture complexity of balance sheet instruments. Methods to attribute cash flows, and rate sensitivities are based on correct techniques (e.g. proper use of statistical correlations).
Positions with uncertain maturities, rates and cash flows	Activity is monitored on a regular basis and compared to projected behavior in order to validate reasonableness of modeling assumptions.
Rigor of interest rate measures and tests	Measures and tests employed capture the material risks embedded in the credit union's balance sheet (e.g., rate shocks trigger the embedded options in some products).

Components of IRR Measurement Methods	
Chart of accounts	A sufficient number of accounts have been defined to capture key IRR characteristics inherent within each product (e.g. 15- and 30-year fixed-rate mortgages are modeled separately in order to capture various coupons and prepayment behaviors).
Data aggregation	The level of data disaggregation is sufficient given the credit union's complexity and risk exposure (e.g. instrument level processing).
Account attributes	Account set-up is appropriate to allow for the capture of key IRR characteristics (e.g. adjustable-rate mortgages are modeled with periodic and lifetime caps and floors).
Discounting methodology	Methodology used properly calculates the value of the asset or liability being modeled (e.g., discount rates or maturities or cash flows are accurate and appropriate in discounting calculations).
Assumptions	Credit union carefully evaluates all assumptions and assesses the sensitivity of results relative to each key assumption (e.g. mortgage prepayments reflect contraction and extension risk and core deposit premiums indicate reasonable maturities).
Internal Controls	
Internal assessment of IRR program	Staff is identified and have annually assessed policy and program to correct any weaknesses.
Compliance with policy	IRR program is evaluated semi-annually for any policy exceptions, including compliance with approved limits.
Timeliness and accuracy of reports	Reports that are routinely provided to management and the Board successfully communicate material IRR exposure of the credit union.
Audit findings reported to board or supervisory committee	IRR program deficiencies and policy exceptions are reported to the Board in accordance with the policy.
Decision-making and IRR	
Use of IRR measurement results in operational decisions	Measured IRR results form part of the credit union's ongoing business decisions and are substantive considerations routinely included in the business decision process.
Escalated use of results when IRR exposure is raised or approaching limits	Procedure specifies review escalation at specific levels with increasing contingency triggers close to limits.
Application to reduce elevated levels of IRR	Credit union utilizes IRR results to clearly define and formulate response (balance sheet structure, funding or pricing strategies) to increased IRR levels.

NCUA acknowledges both the range of IRR exposures at credit unions, and the diverse means that they may use to accomplish an effective program to manage this risk. NCUA therefore does not stipulate specific quantitative standards or limits for the management of IRR applicable to all credit unions, and does not rely solely on the results of quantitative approaches to evaluate the effectiveness of IRR programs. Assumptions, measures and methods used by a credit union in light of its size, complexity and risk exposure determine the specific appropriate standard. However, NCUA strongly affirms the need for adequate practices for a program to effectively manage IRR. For example, policy limits on IRR exposure

are not adequate if they allow a credit union to operate with an exposure that is unsafe or unsound, which means that the credit union may suffer material losses under plausible adverse circumstances as a result of this exposure. Credit unions that do not have a written IRR policy or that do not have an effective IRR program are out of compliance with §741.3 of NCUA's regulations.

VIII. Additional Guidance for Large Credit Unions with Complex or High Risk Balance Sheets

FICUs with assets of \$500 million or greater must obtain an annual audit of their financial statements performed in accordance with generally accepted accounting standards. 12 CFR 715.5, 715.6, 741.202. For purposes of data collection, NCUA also uses \$500 million and above as its largest credit union asset range. In order to gather information and to monitor IRR exposure at larger credit unions as it relates to the share insurance fund, NCUA will use this as the criterion for definition of large credit unions for purposes of this section of the guidance. Given the increased exposure to the share insurance fund, NCUA encourages the responsible officials at large credit unions that are complex or high risk to fully understand all aspects of interest rate risk, including but not limited to the credit union's IRR assessment and potential directional changes in IRR exposures. For example, the credit union should consider the following:

- A policy which provides for the use of outside parties to validate the tests and limits commensurate with the risk exposure and complexity of the credit union;
- IRR measurement systems that report compliance with policy limits as shown both by risks to earnings and net economic value of equity under a variety of defined and reasonable interest rate scenarios;
- The effect of changes in assumptions on IRR exposure results (e.g. the impact of slower or faster prepayments on earnings and economic value); and,
- Enhanced levels of separation between risk taking and risk assessment (e.g. assignment of resources to separate the investments function from IRR measurement, and IRR monitoring and oversight).

IX. Definitions

Basis risk: The risk to earnings and/or value due to a financial institution's holdings of multiple instruments, based on different indices that are imperfectly correlated.

Interest rate risk: The risk that changes in market rates will adversely affect a credit union's net economic value and/or earnings. Interest rate risk generally arises from a mismatch between the timing of cash flows from fixed rate instruments, and interest rate resets of variable rate instruments, on either side of

the balance sheet. Thus, as interest rates change, earnings or net economic value may decline.

Option risk: The risk to earnings and/or value due to the effect on financial instruments of options associated with these instruments. Options are embedded when they are contractual within, or directly associated with, the instrument. An example of a contractual embedded option is a call option on an agency bond. An example of a behavioral embedded option is the right of a residential mortgage holder to vary prepayments on the mortgage through time, either by making additional premium payments, or by paying off the mortgage prior to maturity.

Repricing risk: The repricing of assets or liabilities following market changes can occur in different amounts and/or at different times. This risk can cause returns to vary.

Spread risk: The risk to earnings and/or value resulting from variations through time of the spread between assets or liabilities to an underlying index such as the Treasury curve.

Yield curve risk: The risk to earnings and/or value due to changes in the level or slope of underlying yield curves. Financial instruments can be sensitive to

different points on the curve. This can cause returns to vary as yield curves change.

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