



April 23, 2015

Gerard Poliquin  
Secretary of the Board  
National Credit Union Administration  
1775 Duke Street  
Alexandria, Virginia 22314-3428

**Re: Comments on Proposed Prompt Corrective Action—Risk-Based Capital Rule 2.0**

Dear Mr. Poliquin:

Thank you for the opportunity to respond to the Proposed Risk-Based Capital Rule. Our comments will address NCUA's consideration of adding an interest rate risk (IRR) component to the Risk-Based Capital (RBC) rule.

As indicated in our comments to the initial proposed Risk-Based Capital Rule, the continuation of rigorous analysis, combined with the NCUA Board focusing its efforts on ensuring that examiners are well-equipped with the right questions to ask when conducting exams, is far superior to a rule that establishes standardization to be applied to the masses, whether based on credit risk or interest rate risk.

C. Myers Corporation has been serving the credit union industry since 1991. We have the experience of working with over 500 credit unions, including 50% of those over \$1 billion in assets and 25% of those over \$100 million. During this time we have performed thousands of IRR simulations.

One message we consistently deliver to our clients and regulators is that an indication of safety and soundness is **how much net worth is remaining after bad things happen** – not how much net worth a credit union has.

**The following excerpt identifies sound business practices and we agree with the objective.**

Excerpt from proposed RBC 2.0, §702.101

“(b) *Capital adequacy*. (1) Notwithstanding the minimum requirements in this part, a credit union defined as complex must maintain capital commensurate with the level and nature of all risks to which the institution is exposed. **(2) A credit union defined as complex must have a process for assessing its overall capital adequacy in relation to its risk profile and a comprehensive written strategy for maintaining an appropriate level of capital [emphasis added].**”

**However, our concern is how the results of the capital adequacy assessment will be used in the exam process and in determining a credit union's capitalization classification. We believe the intended regulatory use should be clearly articulated to the industry, prior to becoming regulation.**

Assuming NCUA includes the above excerpt in the final rule, our question is: **If each complex credit union will be required to quantify its unique risks and to maintain adequate capital to support those risks, all of which is to be supported by a written strategy, then why impose standard measures that ignore those unique risks and complexities?**

Adding an IRR measure to the proposed rule, which would likely require taking a one-size-fits-all approach by standardizing assumptions, or approaches to assumptions, **guarantees that the unique risks of an individual credit union will not be appropriately captured.** Decision-makers and examiners will have their eyes on the wrong ball by being focused on passing regulatory tests.

**A brutal fact is that the rule-making process is arduous and untimely and therefore cannot keep up with rapid changes in the financial services industry. NCUA would be better off developing and using relevant scoping tools, outside of regulation, to keep pace with changes in the economic environment and sources of risks.**

Our objective in writing this lengthy paper, with numerous examples, is to convince NCUA that it would be dangerous for the industry, *regardless of the chosen methodology*, to add an IRR component to the proposed rule. The IRR management process should not be relegated to passing minimum standards. IRR is a highly-complex risk with many interdependent components.

In the proposed rule, NCUA states:

*“...a separate IRR standard should be based on a **comprehensive balance sheet measure...** The *intent of such a measure would be to measure IRR consistently and transparently across all asset and liability categories*, to address both rising and falling rate scenarios, and to supplement the supervisory process with a measure calibrated to address severe outliers. This approach would also incorporate a forward-looking, proactive measure into NCUA’s capital standards, as recommended by GAO [emphasis added].”*

The objective sounds good in theory, but in practice the objective of consistency across all categories counters the ability to comprehensively measure risk. Applying a mass-based approach in rule making does not eliminate the need for examiners and decision-makers to quantify and understand the unique risks of an individual credit union. What it can do is encourage decision-makers to set their policies to always be within the NCUA Board’s minimum standards.

History shows that when there are real or perceived limits established by regulators, it is not uncommon for human nature to kick in. As a result, policy limits are set at the broadest parameters to avoid crossing any real or perceived lines drawn. Because it is easy to forget that limits were set at the broadest parameters, the risks in the industry can be unintentionally increased because these limits do not truly reflect unique appetites for risk. Another unintended consequence could be that additional efforts are no longer made toward maintaining a deeper understanding of a credit union’s unique interest rate risks. This could potentially cause decision-makers and/or regulators to rely on achieving the minimum standard as the measure of safety and soundness.

Standardizing an approach with the objective of *measuring “IRR consistently and transparently across all asset and liability categories”* **will likely require the use of readily available tools that are affordable by all.**

To measure *“IRR consistently and transparently across all asset and liability categories”* will likely require standardizing assumptions or approaches to assumptions, yet doing so **guarantees that the unique risk of an individual credit union will not be appropriately captured.**

This reality places a significant burden on NCUA to get its standards right, when in all likelihood there is no “right” standard. *“Adding a separate IRR standard as a subcomponent of the risk-based net worth requirement to complement the proposed risk-based capital ratio measure,”* would be charging forward into dangerous, uncharted waters for the industry.

If NCUA moves forward with this type of rule and the parameters are inappropriate, the industry and its members could suffer severely.

Given the magnitude of NCUA’s request, the 90-day time frame to meet the Board’s request (*“...the Board specifically requests comments on alternative approaches that could be taken in the future to reasonably account for IRR.”*) is not adequate for the essential critical thinking that must take place on this issue, especially if NCUA is considering adding an IRR standard as a rule.

**It would be valuable for NCUA to clarify its objectives.** Is the intent to monitor the health of credit unions to see if they are at risk of losing money if rates change materially? Is it to understand if losses could be substantial enough to threaten their net worth or potentially cause the institution to go out of business? Or, is it to estimate a cost of liquidating credit unions defined as complex?

The objectives are not clear; therefore, our response will be focused on asking NCUA to be crystal clear on its objectives, including the objective to **“supplement the supervisory process with a measure calibrated to address severe outliers.”** To help punctuate the necessity of being clear, we will give examples of considerations as well as unintended consequences of various options.

## **OPTIONS FOR STANDARDIZING IRR**

*“The Board specifically requests comments on alternative approaches that could be taken in the future to reasonably account for IRR.”*

Both net economic value (NEV) and static balance sheet income simulations have been around for a long time, in the banking world as well as in the credit union industry. Both are readily accessible, simplistic and incomplete views of risks to earnings and risks to net worth. Even when combined, they do not provide a reasonable view of risk, as the results often move in different directions. There is a materially better and more comprehensive approach to quantify and manage interest rate risk, which is Long-Term Risks to Earnings and Net Worth. This alternative approach not only captures risk, but also provides relevant decision information. We will address this approach later in this document; however, **we would not recommend that it be used for standardization.**

Any IRR methodology used that requires a one-size-fits-all approach or that requires use of the same assumptions will ultimately result in poor decision information, as well as degrade the methodology.

## Static Balance Sheet Income Simulations

**Static balance sheet income simulations should not be used as a standard to measure IRR, even for simple regulatory tests.**

The static balance sheet income simulation methodology is a simplistic approach. It is easy to understand the assumptions being used. Therefore, many people jump to the conclusion that, because this methodology is transparent with respect to assumptions, it must be a valid way to measure risks across many institutions. This conclusion is greatly flawed.

First of all, typically, static balance sheet income simulations go out one to two years, which does not adequately disclose risk. However, extending a static balance sheet income simulation will exacerbate the weaknesses. The unrealistic assumption on new business profitability becomes a larger component of the simulation, which further masks existing risks.

By definition, static balance sheet income simulations assume that, regardless of what rates do, the balance sheet structure will never change. In other words, loan runoff will be replaced dollar-for-dollar regardless of what rates are doing and the deposit mix will never change.

Static balance sheet income simulations assume 0% movement of deposits when rates increase. It ignores demonstrated and expected member behavior, and instead assumes that consumers will not seek higher-yielding deposits within the credit union or various options outside the credit union. The simplifying assumption, that **no depositor will take action that is in their best interest**, does not provide an appropriate view of risk.

Some defend the methodology by saying that it requires one less assumption. This reasoning is inconsistent because no one would defend using 0% loan and investment prepayment speeds in all environments just because it requires fewer assumptions.

Further, history provides painful evidence that loan and deposit balances do not remain the same as rates are changing. Ignoring this creates unreasonable assumptions when quantifying interest rate risk.

| Date       | Short-Term Rates | Reg Shares + Share Drafts / Total Shares & Borrowings |
|------------|------------------|---|
| March 2004 | 1%               | 43.09%  |
| March 2008 | 3%               | 33.26%  |
| March 2014 | 0%               | 45.15%  |

Source: NCUA FPR Online, Credit Unions \$500M or more

| Loan-to-Asset Ratios |      |      |      |
|----------------------|------|------|------|
| 2008                 | 2009 | 2010 | 2011 |
| 70%                  | 65%  | 62%  | 59%  |

Source: NCUA FPR Online, Credit Unions \$500M or more

**A typical static balance sheet income simulation in a +300 basis point change would incorporate new business earnings north of 200 bps.**

The impact of these assumptions is huge. The result is an unrealistic impact on profitability from new business.

Given the current balance sheet structure of the industry, a typical static balance sheet income simulation in a +300 bp change would incorporate new business earnings north of 200 bps.

The example to the right illustrates why this often happens. The calculations assume an average industry loan-to-asset ratio; yield on loans, yield on investments, cost of funds and net operating expense continue into the future (shown for both the Base Case rate environment and the Up 300).

In the base rate environment, the new business calculation is producing an ROA of 0.80%, roughly in line with the current ROA for the industry.

| New Book of Business Calculation |          |              |              |            |
|----------------------------------|----------|--------------|--------------|------------|
|                                  |          | Base Case    | Up 300       |            |
|                                  | % Assets | Rate         | Rate         | Difference |
| Loans                            | 58.1%    | 5.10%        | 8.10%        | 3.00%      |
| Investments                      | 36.5%    | 1.07%        | 4.07%        | 3.00%      |
| Non-Earning Assets               | 5.4%     | 0.00%        | 0.00%        | 0.00%      |
| Total Assets                     | 100.00%  | 3.35%        | 6.19%        | 2.84%      |
| Non-Maturity Deposits            | 68.8%    | 0.49%        | 1.55%        | 1.06%      |
| Member CDs                       | 18.4%    | 1.20%        | 4.20%        | 3.00%      |
| Borrowings                       | 2.0%     | 1.90%        | 4.90%        | 3.00%      |
| Net Worth                        | 10.5%    | 0.00%        | 0.00%        | 0.00%      |
| Cost of Funds                    | 100.00%  | 0.60%        | 1.94%        | 1.34%      |
| Net Interest Margin              |          | 2.76%        | 4.26%        | 1.50%      |
| Operating Expense                |          | 3.09%        | 3.09%        | 0.00%      |
| Prov Loan Losses                 |          | 0.26%        | 0.26%        | 0.00%      |
| Fee/Other Income                 |          | 1.39%        | 1.39%        | 0.00%      |
| Net Operating Expense            |          | 1.96%        | 1.96%        | 0.00%      |
| <b>Return on Assets</b>          |          | <b>0.80%</b> | <b>2.30%</b> | 1.50%      |

However, if you incorporate typical new business assumptions in an income simulation utilizing a static balance sheet, the new business ROA for the Up 300 rate environment is 2.30%, a 150 basis point (bp) increase over the new business ROA for the base rate environment.

Combining a 2.30% new business ROA with the earnings on existing business helps explain why traditional net interest income and net income results often improve as rates rise, even if the ROA on existing business is decreasing.

However, does a 2.30% new business ROA in a +300 bp rate environment pass the reasonableness test?

Consider the implication; this infers that if rates go up 300 bps, over time the entire industry would earn over 200 bps, which is well above any peak the industry has experienced. Similarly, a +500 bp rate change would show an ROA exceeding 3.00%.

The static balance sheet income simulation methodology hides risk. Hidden risk is inherent in the structure of the methodology; it is not a function of the user assumptions.

| WHEN USING STATIC BALANCE SHEET INCOME SIMULATIONS, THE NCUA WOULD BE ASKING:   | INSTEAD, THE NCUA SHOULD BE ASKING:   |
|---|---|
| What if <b>no credit union depositors take action that is in their best interest</b> as rates change? In other words, what if deposit mixes never change as rates change? | What if deposit mixes become more heavily weighted toward member CDs as rates rise?           |
| What if credit unions' loan mix never changes as rates are changing?  | What if loan mix changes as rates are changing and there is pressure on loan-to-asset ratios? |
| What if loan yields move one-for-one with the market?   | What if loan yields can't move one-for-one with the market?                                   |

## NEV

NEV does not show decision-makers if or when their financial institution can lose money. Therefore, NEV does not disclose short- or long-term risks to earnings and net worth.

If NCUA is primarily concerned about the forced liquidation of a credit union, then a valuation method could be used but the assumptions would require liquidation value, rather than fair value. Even with an objective of forced liquidation, there would be huge guesses involved. Depending on the circumstances, liquidating mortgages from a credit union in California, for example, could be quite different than a credit union in Missouri.

However, this liquidation view would tell you nothing about the credit union's financial strength from a going-concern perspective, as it does not provide a measurement of current earnings, long-term risks to earnings or long-term risks to net worth.

Since we are not clear on the objectives, we have identified and discussed various approaches to developing assumptions to be used in NEV simulations.

### **Loan discount rates**

Standardizing loan discount rates presents a challenge. To represent reasonable values when calculating NEV, it is important to capture the unique characteristics of loans. Here again, NCUA would need to go even further away from the stated objective of "...IRR standard should be based on a **comprehensive balance sheet measure...**[emphasis added]." Standardization across all complex credit unions versus striving to capture risks at the individual credit union level is, by default, not comprehensive.

Following are a few options for standardizing the approach to discount rates on loans. They are not in order of priority and each comes with issues.

#### *Standardize Loan Discount Rates or Spreads to a Curve*

One option for standardizing loan discount rates would be to require each credit union to use specified discount rates or spreads to a curve for each category of loans.

The two institutions represented in Example 1 have identical loan balances by major category, identical investments, identical deposits, and the same prepayment assumptions, deposit assumptions and loan discount rates. **The only difference is that Credit Union B has a significant amount of high credit risk paper and many non-conforming mortgages.** Credit Union B prices for this risk, meaning its rates are higher than Credit Union A, which does not have high credit risk loans and non-conforming mortgages. The higher rates on Credit Union B's loans would cause the current value of the loans to be higher than Credit Union A's (since both institutions are using the same discount rates).

To keep it simple, the results shown are only for the current and +300 rate environments.

**EXAMPLE 1**

| Credit Union A  |           |               |        | Credit Union B  |           |               |        |
|---|-----------|---------------|--------|---|-----------|---------------|--------|
| • Low Credit Risk Loans, Non-Credit Adjusted Discount Rates, NMD at Par |           |               |        | • High Credit Risk and Non-Conforming Loans, Non-Credit Adjusted Discount Rates, NMD at Par |           |               |        |
| <b>Current Net Worth</b>  |           | <b>10.20%</b> |        | <b>Current Net Worth</b>  |           | <b>10.20%</b> |        |
|   | \$ Change | % Change      | NEV %  |   | \$ Change | % Change      | NEV %  |
| Current   |           |               | 11.63% | Current   |           |               | 14.70% |
| +300  | (56,020)  | -71.69%       | 3.63%  | +300  | (55,345)  | -54.11%       | 7.39%  |

NOTES: \$s in 000s | NMD = Non-Maturity Deposits

Even though the decline in NEV dollars in a + 300 is essentially the same, roughly \$56 million, Credit Union B would show significantly less risk and volatility according to the NEV methodology. The results are opposite of what common sense would indicate. This also illustrates that the starting point *does* matter.

Standardizing spreads in this manner would typically ignore risk characteristics, such as credit risk and liquidity risk. If these risks are ignored, for many credit unions this assumption would:

- Result in significant, unwarranted economic benefit in the current rate environment
- Artificially elevate the current NEV ratio and the resulting NEV ratio in all shocked environments
- Artificially reduce volatility as rates change

This would be materially misleading decision information and could lead to an unintended consequence of NCUA-specified tests encouraging more credit risk and/or liquidity risk. Further, the proposed risk-based capital minimums would not address this issue. A simple example in the proposed rule is the same risk weighting being assigned to all current auto loans, regardless of their credit risk.

**This approach would not be good.** If NCUA is trying to *identify* outliers, standardizing loan discount rates or spreads to a curve would not accomplish the objective. As a matter of fact, the next example demonstrates that a credit union with high credit risk could actually take on more interest rate risk than a credit union that does not make high credit risk and non-conforming loans.

Example 2 shows that Credit Union B could increase its holdings of conforming fixed-rate mortgages by roughly 18% of assets and still have about the same volatility as Credit Union A. This punctuates that the approach of standardizing discount rates/spreads would be misleading and dangerous. Notice that the resulting +300 NEV of 4.41% remains above Credit Union A (3.63%), while the volatility is now about equal.

## EXAMPLE 2

| <b>Credit Union A</b>   |           |               |        | <b>Credit Union B</b>  |           |               |        |
|---|-----------|---------------|--------|--|-----------|---------------|--------|
| <ul style="list-style-type: none"> <li>• Low Credit Risk Loans, Non-Credit Adjusted Discount Rates, NMD at Par</li> </ul> |           |               |        | <ul style="list-style-type: none"> <li>• High Credit Risk and Non-Conforming Loans, Non-Credit Adjusted Discount Rates, NMD at Par</li> <li>• <b>Increase balance in 30Yr Fixed Mtgs to see how much could be added to match NEV volatility of Credit Union A</b></li> </ul> |           |               |        |
| <b>Current Net Worth</b>  |           | <b>10.20%</b> |        | <b>Current Net Worth</b>   |           | <b>10.20%</b> |        |
|   | \$ Change | % Change      | NEV %  |  | \$ Change | % Change      | NEV %  |
| Current   |           |               | 11.63% | Current  |           |               | 13.75% |
| +300  | (56,020)  | -71.69%       | 3.63%  | +300   | (67,542)  | -71.35%       | 4.41%  |

NOTES: \$s in 000s | NMD = Non-Maturity Deposits | 30Yr Fixed Mortgages increased 18.3% of assets compared to Credit Union A

To try to somewhat mitigate the severe weakness of this approach, NCUA might respond by publishing tables that would assign discount rates or spreads by additional product characteristics. However, to be effective, consider the potential complexity: tables by product, by credit risk and by liquidity risk. The Great Recession demonstrated that selling loans from the sand states became considerably more difficult. Developing and maintaining such tables would require enormous effort, and the ability of credit unions to cross-reference and apply the values to the various assets and liabilities would likely be cumbersome and inconsistent.

Even after all of this work, the potential calculated value would still not necessarily represent realistic or actual values. **Even for investments in active markets, there is often a disclaimer in valuation reports along the lines of “Market Values do not necessarily represent obtainable or actual values from a transaction.”**

### Loans Start at Par

Another option for valuing loans is to start loans at par, then apply shocks.

In Example 3 we start with Example 1 in which two institutions have identical loan balances by major category, identical investments, identical deposits, and the same prepayment assumptions, deposit assumptions and loan discount rates. The only difference between Credit Union A and Credit Union B is that Credit Union B has more credit risk. In Example 3 one assumption is changed. The one change has loan values starting at par in the base rate environment. Then shocks will be applied.

While this approach will still not capture the unique characteristics of the individual credit unions, it eliminates the material unwarranted economic benefit in the current rate environment for Credit Union B, which is taking more credit risk. The material unwarranted economic benefit was skewing the resulting NEV, NEV ratio and volatility. Unfortunately, this approach eliminates potentially **warranted** economic benefit.

**EXAMPLE 3**

| <b>Credit Union A</b>   |           |               |        | <b>Credit Union B</b>   |           |               |        |
|---|-----------|---------------|--------|---|-----------|---------------|--------|
| ● Low Credit Risk Loans, <b>Loan values start at Par</b> , NMD at Par |           |               |        | ● High Credit Risk and Non-Conforming Loans, <b>Loan values start at Par</b> , NMD at Par |           |               |        |
| <b>Current Net Worth</b>  |           | <b>10.20%</b> |        | <b>Current Net Worth</b>  |           | <b>10.20%</b> |        |
|   | \$ Change | % Change      | NEV %  |   | \$ Change | % Change      | NEV %  |
| Current   |           |               | 10.09% | Current   |           |               | 10.09% |
| +300  | (56,555)  | -84.86%       | 1.69%  | +300  | (53,273)  | -79.93%       | 2.22%  |

NOTES: \$s in 000s | NMD = Non-Maturity Deposits | Credit Union B has less volatility than A due to the higher starting loan yields

Loan values starting at par isolates the changes in valuation from changes in market interest rates. Of course, simply discounting the loans starting at par and then applying shocks does not represent the fair value of the various loan categories, which again begs the question, “what is NCUA’s objective?” And, keep in mind that isolating changes in value from interest rate risk still does not address earnings, risks to earnings or risks to net worth.

While there are other options to consider, the examples above illustrate how complicated it can be to standardize just the loan assumptions, or approaches to assumptions, and have reliable results to appropriately identify outliers.

**Considerations when valuing deposits if NEV is standardized**

Shares at par

If understanding potential liquidation value of credit unions is the primary objective, then the most simplistic and conservative measure would be NEV non-maturity deposit shares at par.

If NCUA chose to standardize deposits using shares at par, examiners and decision-makers would need to keep in the forefront of their minds that **this view is often far from conservative when evaluating risks to earnings and net worth.**

**Stated differently, shares at par ignores real risks to earnings and net worth.** For example, shares at par is:

- Indifferent to the mix of non-maturity deposits
- Indifferent as to whether the credit union is loaded with money markets paying 100 bps or share drafts paying 1 bp
- Indifferent as to whether funds are in regular shares or overnight borrowings. It is hard to picture a scenario in which the **NCUA would feel that a credit union that funded 20% of its structure in overnight borrowings** would be no different than a credit union with those funds in regular shares

Also, the shares at par view could unintentionally encourage credit unions to rely more heavily on CDs and would not reveal real risks to earnings and net worth if another fight for deposits were to ensue as it did during the most recent economic boom. Consider Example 4, which is based on Credit Union A in Example 1 and then increases one-year CDs by 20%, taking balances out of regular shares, share drafts, and money markets.

**EXAMPLE 4**

| Credit Union A  |           |          |        | Credit Union A   |           |          |        |
|---|-----------|----------|--------|--|-----------|----------|--------|
| • Low Credit Risk Loans, Non-Credit Adjusted Discount Rates, NMD at Par |           |          |        | • 20% of Assets More in 1 Year Member CDs, Reduce Reg Shares, Share Drafts and MMkts |           |          |        |
| Current Net Worth   |           | 10.20%   |        | Current Net Worth  |           | 10.20%   |        |
|   | \$ Change | % Change | NEV %  |  | \$ Change | % Change | NEV %  |
| Current   |           |          | 11.63% | Current  |           |          | 11.63% |
| +300  | (56,020)  | -71.69%  | 3.63%  | +300   | (52,136)  | -66.72%  | 4.26%  |

NOTES: \$s in 000s | NMD = Non-Maturity Deposits

Notice that the NEV % improved and the volatility decreased. These results would actually be the opposite of realistically showing risk concerns. Typically, there are numerous arguments in the industry around how long non-maturity deposits may stick around, recognizing that if those funds leave, it would hurt the credit union. **The results in Example 4 show the credit union would be better off with short-term CDs than with non-maturity deposits. This does not make sense.**

These very simple examples punctuate the point that NEV with shares at par does not come close to appropriately quantifying risks to earnings and net worth.

NCUA could use credit union core deposit studies to derive standardization

It is reasonable to assume that some non-maturity deposits bring more benefit to the credit union than others. The issue is that valuing non-maturity deposits is one of the most volatile aspects of simulating NEV. These assumptions, with essentially a few keystrokes, can change the direction of the overall NEV results.

If the goal is “...to measure IRR consistently and transparently across all asset and liability categories,” then NCUA could conduct a study of credit union deposits to derive a standard assumption to be used by all.

NCUA attempted this in 2001 and released the NERA study. However, NCUA ultimately chose not to use the results of that study to standardize deposit value assumptions to be used in NEV. The decision to **not use the NERA study** was reasonable, as the study did not study credit union deposits. Following is a link to our comments on the NERA Study – <http://www.cmyers.com/cnotes/cmyers-Comments-on-NERA-Study.pdf>.

Since the NERA study was released, many credit unions have purchased their own core deposit studies to be used in NEV simulations. When using the results of these studies in NEV simulations, often material economic benefit in non-maturity deposits is shown. However, the economic benefit

calculated based on the data from these studies is often vastly different from observed transactions in mergers and purchase and assumptions. NCUA would need to reconcile these differences.

When these economic benefits are used in NEV simulations, the results often show the credit union has fairly low or no risk as rates rise, even if the credit union has relatively long assets.

Further, favorable deposit values can result in a high beginning NEV. This can skew both NEV volatility and the NEV ratio for shocked environments. As a matter of fact, in 90% of the model validations we do, we observe that the current NEV ratio is higher than the current net worth ratio with an average premium of 23%. If NCUA were to use this approach, it would be important to determine if the starting NEV values and ratios are appropriate.

Keep in mind, it is highly unlikely that when a credit union needs to unwind risk, the institution will have the ability to simultaneously sell select liabilities to offset the loss of selling select assets.

Example 5, Credit Union A on the left shows NEV using the results from a typical core deposit study. In this example, the asset side of the balance sheet has not changed from Example 4. The only change is the approach to valuing deposits. Using the core deposit study causes Credit Union A to have a materially higher NEV ratio in a +300 than the credit union’s net worth ratio. When shares are valued at par (on the right), the NEV ratio is 3.63% in a +300. With no change to asset assumptions and using the core deposit study, the +300 NEV increased to 15.49%.

If NCUA goes the route of accepting core deposit studies, stress tests could then be required. For example, every credit union could cut maturity assumptions in half (middle). While this would stress test the assumptions, the assumptions across institutions would not be consistent, as each institution would be starting from a different point. As Example 5 illustrates, the starting point *does* matter.

### **EXAMPLE 5**

| Credit Union A                           |           |          |        |         | Credit Union A  |          |        |         |           | Credit Union A    |        |        |           |          |       |
|--|-----------|----------|--------|---------|---|----------|--------|---------|-----------|-------------------|--------|--------|-----------|----------|-------|
| ● NMD Values Based on Core Deposit Study |           |          |        |         | ● NMD Values: Cut Core Deposit Study Maturity Assumptions in Half |          |        |         |           | ● NMD at Par      |        |        |           |          |       |
| Current Net Worth                        |           | 10.20%   |        |         | Current Net Worth   |          | 10.20% |         |           | Current Net Worth |        | 10.20% |           |          |       |
|  | \$ Change | % Change | NEV %  |         | \$ Change   | % Change | NEV %  |         | \$ Change | % Change          | NEV %  |        | \$ Change | % Change | NEV % |
| Current                                  |           |          | 17.35% | Current |   |          | 12.90% | Current |           |                   | 11.63% |        |           |          |       |
| +300                                     | (22,084)  | -18.95%  | 15.49% | +300    | (30,534)  | -35.24%  | 9.20%  | +300    | (56,020)  | -71.69%           | 3.63%  |        |           |          |       |

NOTES: \$s in 000s | NMD = Non-Maturity Deposits

Example 5 compares the results for the three deposit valuation options identified so far. Volatility ranges from a high of ~72% to a low of about ~19%. This illustrates that the NEV methodology is highly assumption driven.

#### NCUA specifies deposit values based on purchase and assumption information

NCUA could establish a table of values to be used in various interest rate environments. These values could be based on experience from mergers and purchase and assumptions. This option would likely reduce the material economic benefit commonly shown in NEV simulations that incorporate results of credit union core deposit studies. NCUA should clearly state its objective before any decisions are made.

**Using a table of values would** still ignore how a credit union actually prices its deposits. It would also ignore label risk, meaning some categories labeled checking, may be rewards checking and some labeled regular shares may actually be priced like money markets. While this may not be a material issue in today's environment it certainly was when rates were higher and there was a fight for deposits. It is reasonable to assume that there could be a fight for deposits at some point in the future, even if rates don't change. If these standards are to be part of regulation, a changing environment must be considered.

**Regardless of the assumptions on non-maturity deposits, NEV will not show NCUA or decision-makers if, or when, a credit union could have materially reduced or negative net income and the resulting impact to net worth.** Ignoring risks to earnings and net worth can also impact risk-based capital. If the risks to earnings and net worth are not identified in advance, yet the risks ultimately materialize, then the net worth ratio and risk-based capital ratio will be affected and can surprise decision-makers and regulators.

**NEV does not disclose risks to earnings and net worth and does not disclose risk/return trade-offs.** We have already given examples of why NEV does not disclose risks to earnings and net worth. The following highlights a few more very simple examples:

- A credit union could take money from autos, 30-year fixed-rate mortgages, or 10-year agency bullets and purchase a building. This would hurt the credit union's earnings, risks to earnings and risks to net worth. Yet NEV would show there is no financial reason to not take the money out of an earning asset and put it into a non-earning asset, if rates rise. In shock up environments, NEV simulations do not typically include devaluation of buildings which would look much better than the original investment, or even a loan. This does not make sense.
- If a credit union uses NEV to test the risk/return trade-off of adding fixed mortgages or keeping money in overnight investments, NEV would not show the earnings trade-off.
- NCUA has added the ability for credit unions to use derivatives to reduce IRR risk. At the same time, NCUA has several requirements to quantify the risk of derivatives. We believe derivatives can be a good risk mitigation tool, and that the risk/return trade-offs should be clearly understood.

In today's environment, the focus of the protection is typically for a rising rate environment. If derivatives were only evaluated with NEV, it would show that the price on day one is fair (no gain or loss) and the value will increase as rates increase. NEV would not show decision-makers and/or examiners the potential loss of income if rates don't change.

In our experience of modeling many different derivatives, we have invariably seen that the NEV represents an incomplete view of the risk/return trade-offs of derivatives. NEV doesn't have the ability to show how high rates have to go for earnings to breakeven or how that breakeven changes if rates move slower than an instantaneous rate change. As a matter of fact, using NEV, which assumes an instantaneous rate change, creates an optimistic view when evaluating derivatives.

## NEV Summary

- Regardless of NEV assumptions used on deposits or loans, it is critical that NCUA and decision-makers acknowledge that NEV does not show risks to earnings, net worth at risk and net worth not at risk as rates change
- NEV is highly assumption driven
- Standardizing assumptions can have severe unintended consequences
- NEV does not address profitability
- NEV cannot be used to assess risk/return trade-offs
  - Even if values could be precisely calculated, NEV is an incomplete view of risk. It will not show decision-makers and/or examiners if, **or when**, a credit union could have materially reduced or negative net income and the resulting impact to net worth. Keep in mind, net worth is a key component to the proposed risk-based capital calculation

As noted earlier, NEV assumptions regarding non-maturity deposits significantly impact results when simulating interest rate risk.

It is interesting to note that, if a credit union uses static balance sheet income simulations and NEV shares at par to quantify and manage interest rate risk, the assumptions regarding NMDs are in direct conflict:

- Static assumes that the NMD balances will never drop and will always be around to help
- NEV shares at par assumes balances will mature immediately and will not be around to help

## Impact to Policy Limits

If NCUA establishes minimum standards to capture outliers, it is reasonable to assume that credit unions, in general, will begin to establish policy limits based on these minimum standards. Unfortunately, far too often, policy limits are established to be within perceived regulatory limits. Often, the result is unintentional, increased risk taking.

## RECOMMENDED APPROACH FOR QUANTIFYING IRR

The following outlines an alternate approach for quantifying IRR. While this approach comprehensively addresses IRR and is forward-looking, **we do not believe this approach, or any approach, should be standardized in regulation.**

As we said in the beginning, the IRR management process should not be relegated to passing minimum standards. IRR is a highly-complex risk with many interdependent components.

The approach, Long-Term Risks to Earnings and Net Worth, incorporates only the strongest points of income simulation and NEV. The following outlines two steps of the recommended four-step process.

## **Step 1: Isolate long-term risks to earnings and net worth embedded in the credit union's existing commitments.**

This approach assesses risks to profitability and net worth against a backdrop of history-based rate environments and yield curves. It answers several questions that are of interest to decision-makers and examiners, such as:

1. What is the short- and long-term profitability of decisions the credit union has made under a wide range of rate environments and yield curves?
2. Under which rate environments, if any, could the credit union have materially reduced or negative earnings?
3. If the credit union could have materially reduced or negative earnings, when could they occur and what is the time horizon for pain?
4. Under which rate environments could existing business cause the credit union to no longer be Well Capitalized from interest rate risk?
5. Under which rate environments could existing business cause the credit union to no longer be Well Capitalized from aggregate risks (e.g., interest rate, credit, legislative, and regulatory)?

One objective of this variation of income simulation is to isolate long-term risks to earnings and net worth embedded in the credit union's existing commitments over the next four or five years without intermingling assumptions regarding new business. This approach factors in a benefit of NEV, which is to isolate existing commitments.

As discussed above, new business assumptions used in static balance sheet income simulations can hide risk and assume the balance sheet mix never changes.

The long-term risks to earnings and net worth methodology factors in changes in depositor behavior as rates change, which is ignored by static balance sheet income simulations. Additionally, it does not require someone to make assumptions regarding the maturity of non-maturity deposits, thus avoiding that huge wild card in NEV.

This methodology does not ignore credit risk. As discussed above, depending on the approach to discounting loans, NCUA could actually choose a methodology that excessively rewards credit unions for taking higher credit risk and making non-conforming loans.

The Long-Term Risks to Earnings and Net Worth approach is designed so that it is very difficult to hide risk. There are built-in checks and balances. For example, if deposit pricing assumptions are low in a rising rate environment, the advantage for the consumer to move their funds will increase, resulting in more withdrawals, which would increase the cost of funds.

For those credit unions with material amounts of existing commitments remaining beyond the four or five-year horizon, we recommend that decision-makers understand the residual risk. The Residual Value methodology is designed to answer the question: ***How does our net worth hold up if, after four (or five) years, the credit union or its regulators "close out" the risk?*** This is answered by selling any

material existing asset positions that are remaining after 4 or 5 years. The potential value losses are then subtracted from the net worth.

The Residual Value approach allows decision-makers and regulators to understand their risk using the entire financial structure. This is key because a credit union's ability to withstand residual risk is influenced by its bottom-line income and the impact it has on net worth.

### **Step 2: From a regulatory perspective, understand the required earnings from new business to protect net worth, and offset risk from existing commitments.**

In our opinion, credit unions should be evaluated as a going concern. NEV ignores any contribution from new business decisions. Static balance sheet income simulations overstate the contribution of new business in a rising rate environment. The Long-Term Risks to Earnings and Net Worth approach shows how hard new business needs to work to offset existing risks to protect net worth. Therefore, decision-makers and regulators can see existing risk independent of new business requirements.

### **Other Considerations**

The risk management process should incorporate stress testing assumptions. The Long-Term Risks to Earnings and Net Worth methodology was designed to reduce assumptions risks. We would be happy to share results of the numerous stress tests we have conducted. Keep in mind, it is not uncommon for the direction of results to change when stress tests are conducted using NEV.

The Long-Term Risks to Earnings and Net Worth methodology is a forward-looking approach that would comprehensively address IRR, without the severe weaknesses of NEV and static balance sheet income simulations.

However, as we have said, **we do not believe this approach, or any approach, should be standardized in regulation.** Any methodology used for standardization will ultimately lead to standardization of assumptions which will result in poor decision-information and degradation of the methodology.

Additionally, because c. myers is the primary provider of this methodology, it is not readily available to all credit unions that would be defined as complex under proposed RBC 2.0. The cost for credit unions and/or their A/LM providers to program this comprehensive approach would be a material undertaking. **We again recommend that NCUA not incorporate an IRR sub-component into RBC.**

## **SOMETHING TO CONSIDER**

Excessive credit risk and/or interest rate risk can lead to liquidity risk. As a middle ground, NCUA could consider establishing **minimum** liquidity parameters for the **sole purpose of identifying outliers, without materially handcuffing well-run credit unions.**

While not perfect, if the process is set up appropriately, it can be forward looking and reduce the level of assumptions risk. It can also be structured so that the cost and burden is lower, relative to the complexity of quantifying interest rate risk, for all credit unions defined as complex. Of course a disadvantage, if put into a rule, is that parameters may not keep up with the rapid changes in the

industry. The inability for a rule to keep pace with the rapid changes in an industry is true for any type of parameter.

As we stated earlier, we believe NCUA would be better off developing and using relevant scoping tools, outside of regulation, to keep pace with changes in the economic environment and sources of risks.

If NCUA goes this route, and is compelled to put standards in regulation, we would recommend that if a credit union does not pass the minimum standards, they would be allowed time to come within compliance rather than taking an immediate hit to their capitalization classification.

## SUMMARY

As stated in our response to the original Risk-Based Capital Proposed Rule, and now restated in this response, applying standardization across credit unions is difficult and results in degradation of reliable decision-information.

This type of standardization **guarantees that the unique risk of an individual credit union will not be appropriately captured.** Standardization does not change the need for examiners and credit union decision-makers to understand the unique risk of an individual credit union.

Standardization will cause confusion among examiners and credit union decision-makers, especially when combined with the proposed requirement, "...the Board believes it is necessary to incorporate a broader regulatory provision **requiring complex credit unions to maintain capital commensurate with the level and nature of all risks to which they are exposed, and to maintain a written strategy for assessing capital adequacy and maintaining an appropriate level of capital** [emphasis added]."

Maintaining capital adequacy and a written strategy for assessing capital adequacy is a sound business practice and enables credit unions and regulators to keep up with the pace of change in the industry, without being distracted by standardization and a one-size-fits-all approach. However, until NCUA clarifies how this proposed requirement will be used in the exam process, it should not be included in regulation.

Rule making is a cumbersome, drawn out process and therefore does not keep pace with changes in the industry. New services and products will invariably be introduced that rules will not capture. History has proven this time and time again.

The continuation of rigorous analysis, combined with the NCUA Board focusing its efforts on ensuring that examiners are well-equipped with the right questions to ask when conducting exams, is far superior to a rule that establishes standardization to be applied to the masses.

If you have any questions or would like to discuss this response in further detail, please don't hesitate to contact us at 800.238.7475.

Sincerely,

Sally Myers  
CEO/Principal

John Myers  
President/Principal

Adam Johnson  
EVP/Principal

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