Aggregating Risks to Inform Strategy

By c. myers corporation

"One of the common flaws in managing risks within a credit union is to tie each risk independently to net worth, without monitoring the aggregate exposure of different risks to net worth."

—NCUA

We agree. In fact, understanding and managing risks in aggregate should not be considered optional. In addition to comprehensively understanding traditional threats, such as interest rate risk (IRR) and credit risk, considering new strategic threats is equally important, even though it can be harder to get your arms around these new threats.

New Strategic Threats

Beyond traditional risks, the credit union industry is facing new strategic risks that could jeopardize its relevance and sustainability. Disruption is occurring and members' expectations are changing at lightning speed.

With technology and broad consumer bases as primary strengths, new competitors are leveraging their simple, yet sophisticated delivery systems. The rewards are not limited to obtaining a slice of credit union revenue. The value of data around consumer purchases is significant, not to mention the additional relationship-building opportunities with consumers that this information offers.

It does not matter if these companies have sustainable business models. What matters is that they can create disruption, and in many cases, they have done so. The disruption that has already occurred merely scratches the surface of possibilities.

Some disruptors include:

- P2P: Enabling people to "text" money is changing the way consumers pay for things. ACH payments take a big bite out of interchange income and they are growing exponentially. Moreover, once established, it is easy for consumers to make payments without thought as to the financial institution behind the scenes (e.g., people paying with PayPal are thinking PayPal, and are probably not thinking about the credit union accounts they set up to process the transaction behind the scenes)
- Mobile and online purchases: Setting and forgetting is the name of this game. In-app purchases make this easy for consumers. They don't have to decide which card to use every time they buy something. They just set it and forget it. No matter how much money a credit union spends on providing consumers with payment options – such as ApplePay, Samsung Pay, Android Pay, Walmart Pay, and Amazon

Payments – if their card is not the one that is "set" for use, then revenue streams can dry up quickly as expenses increase

- M-Pesa: Sometimes referred to as "bankless banking," M-Pesa allows customers to get a loan, pay bills, buy goods, and withdraw cash using just a cell phone and no bank accounts. It is currently the preferred method for financial transactions in Kenya. M-Pesa may not be the disruptor that changes banking in the United States, but it is often the next idea (or the one after that) which springboards change. See our blog about M-Pesa at http://www.cmyers.com/strategic-planning-the-future-of-money/
- Bitcoin financial transactions: Bitcoin is gaining broader acceptance by retailers, bypassing banks and credit unions entirely. Even for companies that do not accept Bitcoin, consumers can often make purchases through intermediaries like Gyft.com, which sells gift cards to most popular retailers. There are currently 15 million Bitcoins in circulation worth nearly $6.7 billion[1]
- Lending Club: Offering risk-priced loans to consumers in most credit tiers, Lending Club is also creating feel-good opportunities for individuals to fund these loans. The loan process is managed online, providing convenience and fast decisions. For credit unions, in addition to creating competition for loans, the ability for individuals to easily invest at higher yields may also impact member deposits. Since 2008, Lending Club has funded over $13.4 billion in loans[2]
- SoFi: Founded in 2011, SoFi has funded over $6 billion in loans.[3] With Millennials in mind, they advertise that they can provide a personalized rate in just two minutes as well as unemployment protection and career support in the event someone loses their job. SoFi offers student loans, personal loans, and mortgages

So What Does This Mean For Your Financial Strategy?

New competitors, with new mindsets, using an array of innovative processes, can quickly become the face of banking in consumers' minds. At the same time, these competitors are chipping away at important revenue streams, such as interchange and overdraft protection fees.

Risk Management Must Keep Pace

To remain successful as the world changes and becomes more complex, risk management processes must keep pace.

Risk management begins with identifying and quantifying strategic risks. An effective process also recognizes that it is not adequate to only quantify and understand risks in silos. Risks should also be quantified and understood in aggregate. As history repeatedly taught us, **bad things don't usually happen in isolation.**

[1] http://www.coindesk.com/data/bitcoin/
[2] https://www.lendingclub.com/public/about-us.action
[3] https://www.sofi.com/press/sofi-supasses-6-billion-in-loans/

Understanding and communicating risks in aggregate allows decision-makers to evaluate if the credit union is taking on too much risk, or if the credit union may be poised to strategically accept more risk. Also note that understanding risks in aggregate permits management to consider the credit union's capacity for strategic opportunities; strategic risks and opportunities are two sides of the same coin.

Taking a Common-Sense Approach

In our personal lives, planning for our financial future involves many considerations and decisions.

We set goals and we try to prepare for those unexpected cash outlays.

As parents, we try to give sage advice to our children. For example, when a child decides to get married, buy a house, or start a family, we are compelled to encourage them to consider how much they need to save for the inevitable rainy day, as well as the more exciting things like furnishing the house or buying that cool new car.

You may discuss how much money they should set aside just in case:

- A breadwinner loses their job and someone gets sick
- A car breaks down and the roof leaks

These are examples of risks that are inherent in our daily lives. Then, of course, you also want them to be forward thinking to:

- Save for retirement and their children's college education
- Save for that shiny new car and that big beautiful pool

The lists can go on and on. These are examples of assessing risks and strategic opportunities, making decisions, and taking the next steps. Part of the sage advice is to encourage saving for a combination of risks and forward-thinking next steps. You might say, "Unfortunately, when it rains, it pours. You may want to have enough set aside to be comfortable in case you lose your job ***and*** the refrigerator breaks, right after you buy your shiny new car."

Why Not Apply This Common-Sense Approach in Business Analysis?

Many credit unions are diligent in performing comprehensive analyses on risks, such as:

- IRR
- Credit risk
- Regulatory and compliance risks
- Fraud

They are also forward-thinking in their evaluation of strategic opportunities, such as:

- Expansion
  - Delivery channel
  - Location
  - Field of membership
- Mergers
- New product innovations

Once the risks and strategic opportunities are evaluated, aggregating them to understand strategic net worth requirements can be powerful decision information. It keeps you several steps ahead of your competitors as the world around you changes.

Consider How Business Decisions are Made

The following outlines some common decisions:

- The board and management decide to begin actively looking to expand through merger opportunities
- The ALCO decides to increase lending into "C" and "D" credit tiers to serve more members
- The ALCO decides to extend the investment portfolio in order to provide additional yield today, recognizing IRR will increase in a rising rate environment
- Executive management quantifies and decides to prepare for a potential bad case scenario in which interchange income is materially reduced due to disruptors in payment systems
- The board and management agree to let growth outpace earnings, allowing the net worth ratio to decrease
- With liquidity beginning to tighten, ALCO decides to quantify and prepare for potential additional contingency funding costs that may include increased dividend rates and the addition of borrowings

Each of these decisions was based on comprehensive analyses to determine the risk and return trade-offs.

The Problem with This Approach to Evaluating Strategic Options

The decisions discussed previously were made independently. The individual risks were determined to be within each of the credit union's individual risk tolerances. However, decision-makers did not have a comprehensive picture of aggregate risk. As a result, the impact of these decisions in aggregate could put severe pressure on earnings and net worth, and likely handicap progress towards strategic goals.

The more useful decision information is to combine the comprehensive quantification of individual risks and opportunities so that decision-makers can see and evaluate decisions in light of the whole picture.

It's Not About the Software Used for Aggregating Risk

When working to develop a framework for understanding and communicating aggregate risks, far too often people focus on deciding what kind of software package to buy. Instead, they should start with having thought-provoking discussions and asking the tough, relevant questions. For example, reaching agreement on tough questions such as:

- How much aggregate risk is too much, and why do we think it is too much?
- Do we create relevancy risk by taking too little risk?
- How much net worth do we want to have available for strategic opportunities?

Decision-makers can link strategy with a more complete understanding of risks in aggregate using a straightforward and practical framework. In quantifying and managing aggregate risks, we recommend continuously evaluating and answering questions, such as:

- What are the risk conditions and strategic opportunities for which we want to be prepared?
- Are there circumstances under these conditions, in isolation or combination, which could cause our credit union to lose money and erode net worth to a level that threatens safety, soundness, and ongoing relevance?
    - If yes, can we demonstrate that we have adequate levers to pull to mitigate the risks should they become a reality?
    - If we don't feel we have adequate levers, what should we consider doing today so that we remain within our risk comfort zone while continuing to remain relevant in our market?

Risks should be both individually quantified **and** also aggregated at the enterprise level to determine if net worth is adequate to absorb them. Thresholds are typically established at the individual risk level. By establishing a minimum strategic net worth and taking an enterprise view of risks in aggregate, decision-makers can then understand if net worth is adequate to absorb the risks that could materialize simultaneously. This also helps decision-makers understand the net worth available for strategic opportunities.

A Sample Approach to Aggregating Risks

Example 1

Aggregate Strategic Net Worth Requirements			
Assets ($000s)	**NW $s**	**Minimum NW%**	**Rationale for Minimum**
659,936	67,321	6.00%	Don't want to fall below Adequately Capitalized

Risks & Opportunities	NW%	Rationale for Risk Components
Risks to Earnings including IRR	1.50%	Last rate peak (2006-07); ST/LT rates 5%
Additional Credit Risk	1.00%	Proxy for bad case credit losses
Regulatory Risk	0.15%	Additional compliance costs
Non-Interest Income	0.30%	Reduction of interchange from disruptors
Growth Outpacing Earnings	0.27%	Expect 12% growth while earning 80 bps
Liquidity Risk	0.25%	ROA impact of Contingency Funding Plan
Cost of Technology	0.50%	Cost of keeping pace with technology
NW for Risk & Opportunities	3.97%	
Total NW Required	**9.97%**	**Aggregate Strategic Net Worth Requirement**
Current NW	**10.20%**	
Difference	**0.23%**	

Example 1 provides a simple format to summarize aggregate risk for decision-makers. Notice that the credit union in the example has established a minimum net worth ratio of 6%. From there, the credit union identified key risks and opportunities it believed to be significant and quantified its potential impact, including threats from non-traditional competition. The non-interest income risk above, for example, could be based on an analysis indicating the expected impact of disruptors, such as PayPal, ApplePay, Samsung Pay, Android Pay, Walmart Pay, and Amazon Payments.

After comprehensive analysis of each individual risk, the aggregate of those risks is equivalent to 3.97% of the credit union's net worth ratio, as shown above. When the aggregate risk of 3.97% is added to the credit union's established minimum of 6%, the total strategic net worth required is 9.97%. With a current net worth ratio of 10.20%, the credit union has sufficient net worth to cover this aggregate strategic net worth requirement.

Each credit union is unique. Consider if the risk analysis had instead created the aggregate risk picture in Example 2 (shown on the following page). In this case, the aggregate of the risks and strategic opportunities was determined to be 9.39%, and the resulting total strategic net worth required of 15.39% exceeds the credit union's current net worth of 10.20%.

Notice that **none** of the individual risks or opportunities, on its own, would indicate that current net worth could be insufficient.

Example 2

Aggregate Strategic Net Worth Requirements			
Assets ($000s)	**NW $s**	**Minimum NW%**	**Rationale for Minimum**
659,936	67,321	6.00%	Don't want to fall below Adequately Capitalized

Risks & Opportunities	NW%	Rationale for Risk Components
Risks to Earnings including IRR	3.10%	Last rate peak (2006-07); ST/LT rates 5%
Additional Credit Risk	2.30%	Proxy for bad case credit losses
Regulatory Risk	0.15%	Additional compliance costs
Non-Interest Income	1.30%	Reduction of interchange from disruptors
Growth Outpacing Earnings	1.14%	Expect 12% growth while earning 80 bps
Liquidity Risk	0.40%	ROA impact of Contingency Funding Plan
Cost of Technology	1.00%	Cost of being on the leading edge
NW for Risk & Opportunities	9.39%	
Total NW Required	**15.39%**	**Aggregate Strategic Net Worth Requirement**
Current NW	**10.20%**	
Difference	**-5.19%**	

Bottom Line

Being within individual risk limits does not necessarily indicate that the credit union is safe and sound. The point is that with this analysis, decision-makers are better positioned to act.

Seeing exposures brought to light from the aggregate risk, decision-makers may:

- Take steps to reduce risk
- Defer moving forward on strategic opportunities
- Reconsider the risk tolerance or appetite of the credit union
- Consider a combination of these steps

This is the question for decision-makers:

Do we have enough net worth to support the aggregate risks to our credit union, as well as enough to support our desired strategic opportunities?

To answer this question, significant risks and strategic opportunities need to be regularly evaluated, communicated, and discussed.

Working with hundreds of credit unions, we have found that these types of tools and processes better link strategy, risk management, and, ultimately financial performance, thus helping decision-makers see the future from different perspectives. Strategies for a more sustainable business model may be improved through collaborative discussions.

Investing time to think strategically and link strategy with risk aggregation can lead to a competitive advantage, which is difficult to attain when the world is changing at lightning speed.

About c. myers

Since 1991, we have partnered exclusively with credit unions. Our philosophy is based on helping our clients ask the right, and often tough, questions in order to create a solid foundation that links strategy and desired financial performance. We have the experience of working with over 500 credit unions, including 50% of those over $1 billion in assets and about 25% over $100 million providing A/LM, interest rate risk and budgeting services, and facilitating more than 100 strategic planning, process improvement, and project management engagements each year.