

# CHALLENGES IN THE ESTIMATION OF THE ALL

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# INTRODUCTION

The estimation of the Allowance for Loan and Lease Losses (ALLL) has been a part of the financial institution's accounting processes for years, but it has taken on increased importance over the last several years. Between increased regulatory scrutiny and the challenges of documenting and defending the Allowance estimation to multiple constituencies including the regulators, external auditors, and the board, many financial institutions find themselves overwhelmed with the process of estimating and documenting the ALLL on a monthly or quarterly basis. The ALLL estimation is significant in that regulators are vigilant about ensuring that financial institutions have enough in their reserves, but the ALLL estimation is also significant in its impact on an institution's earnings and capital.

## INTRODUCTION (CONT.)

One of the defining regulatory statements on the ALLL, the 2006 Interagency Policy Statement on the Allowance for Loan and Lease Losses, states:

*The ALLL represents one of the most significant estimates in an institution's financial statements and regulatory reports...each institution has a responsibility for developing, maintaining, and documenting a comprehensive, systematic, and consistently applied process for determining the amounts of the ALLL and the provision for loan and lease losses.*

Tom Ryan of Turner and Associates, Inc., a bank consulting firm serving clients in the Midwest, sees this in practice, noting: “**Estimating the allowance for loan and lease loss is one of the most important challenges bankers face today, though often the least understood.** Bankers can minimize the inherent imperfections of this estimate by adopting a supportable and consistently applied methodology and providing verifiable documentation of their findings.”

# CHALLENGES IN THE ESTIMATION OF THE ALLL

Some of the general overarching challenges that financial institutions face with regards to employing this type of comprehensive, systematic, and consistently applied process to their ALLL estimation include:

**1. The manual, time-intensive nature of the process each month or quarter.** For many financial institutions, the process can take several days if not more per month for several of the institution's finance, credit, and/ or lending staff. Some of the individuals involved in the estimation are high-level executives whose time is at a premium, so a great amount of time directed towards the ALLL can be a burden. This process is labor-intensive, manual, and often prone to error, through the usage of an assortment of Excel spreadsheets, which lend themselves to version control issues and formula errors amongst other potential issues.

**2. Keeping up with new accounting standards and regulatory demands that are being placed on the institution.** The financial institution must stay current not only with the published regulatory guidance but also with new accounting standards being issued from FASB as well as the regulatory demands from the institution's specific regulators, which may or may not coincide precisely with the two aforementioned sets of standards.

**3. Additional reporting and disclosure requirements.** In recent years, FASB has continued to issue new requirements through its Accounting Standards Updates. While this often consists of simple reports and aggregation of data that is already being used, it can be time-consuming and places additional strain on limited resources.

## FACT:

Users of [Sageworks](#)

[ALLL](#) can create customized reports to support their disclosure requirements (ASU 2010-20).

# CHALLENGES IN THE ESTIMATION OF THE ALLL (CONT.)

**4. Increased scrutiny on the assumptions used to determine the ASC 450-20 (FAS 5) reserves.** This can include questions around how to appropriately segment the ASC 450-20 (FAS 5) pools, assumptions used for the number of periods of historical data to include for establishment of the Historical Loss Reserve portion of the ASC 450-20 (FAS 5) reserves, and the judgment and defense of qualitative factor adjustments in the assessment of the ASC 450-20 reserves.

**5. Increased scrutiny around the ASC 310-10-35 (FAS 114) reserves.** This includes the appropriate determination of which loans need to be evaluated for impairment under ASC 310-10-35 (FAS 114), determination of whether the loan should be considered “collateral-dependent” and evaluated under the “Fair Market Value of Collateral” method or under the “Present Value of Future Cash Flows” method if the borrower is still expected to make repayments on the loan, the correct assumptions to employ in either method, as well as additional considerations that have been expanded upon by FASB as pertains to Troubled Debt Restructure (TDR) loans that have been modified or restructured.

Nelson Reeves from Reeves Risk Management, a firm serving financial institutions in the Southeastern U.S., sums up these challenges by stating: “Overall, one of the most significant challenges is arriving at an amount in the allowance which both adheres to the accounting and regulatory requirements and satisfies the regulators as to its adequacy.”

# CHALLENGES IN THE ESTIMATION OF THE ALLL (CONT.)

Given the above list of conflicting demands pertaining to the ALLL that are being placed on financial institutions taken in context with increased regulatory demands in other areas of their operations, it is easy to see how many financial institutions are struggling to put together a comprehensive, systematic, and consistent estimation of their Allowance for Loan and Lease Losses and to meet the demands of the various constituencies that scrutinize this calculation.

# THREE STEPS TO EVALUATING A FAS 5 METHODOLOGY

Although calculating Specific Reserves under ASC 310-10-35 (FAS 114) also presents challenges, estimating General Reserves under [ASC 450-20 \(FAS 5\)](#) tends to be more difficult. According to Gary Deutsch, a leading expert on the ALLL and President of BRT Publications, a risk management training and consulting firm: “The most challenging part of the ALLL estimation process is determining the amount of reserves needed for loans analyzed in risk pools... because there is no one, best method to determine the losses inherent in the pools.”

While there may be no single, best method to determining losses inherent in the pools, there are three steps institutions must take to adequately calculate the pooled loans portion of the ALLL and minimize regulatory criticism.

## **1) Assembling Risk Pools: Avoid Pools that Are Too Broadly Segmented**

The first aspect of estimating the General Reserves under ASC 450-20 (FAS 5) is assembling risk pools that accurately reflect the segmentation of risk within the institution's portfolio. Many institutions have historically used overly broad pools for the FAS 5 evaluation; they have typically included three or four basic segments such as Real Estate, Commercial, and Consumer. This breakdown is now viewed by many auditors and examiners as inadequate because these broad buckets are unable to account for the varying levels of risk within each of the loan segments. For example, the “Real Estate” segment could contain loans of such different risk profiles as Commercial Real Estate, Residential Real Estate, and Construction and Development, among others. The first step many banks have taken to make their pools more specific is to segment by FDIC call code. This methodology is an improvement over the basic, three to four portfolio segment breakdown; however, it is still not granular enough.

# THREE STEPS TO EVALUATING A FAS 5 METHODOLOGY (CONT.)

In fact, the Accounting Standards Updates from FASB in 2010 (ASU 2010-20) require that institutions begin using at least two levels of disaggregation for their risk pools, and it even recommends a third level. The three levels of disaggregation are usually portfolio segment (discussed above), class, and measurement attribute. For example, Commercial Real Estate is a portfolio segment; this segment can be disaggregated further by class or collateral type into groupings such as “Commercial Real Estate – Office Building “ and “Commercial Real Estate – Retail.” Those segments can be broken down to a third level by measurement attribute such as risk rating, delinquency, or risk level (Pass, Special Mention, Substandard, and Doubtful), resulting in much more specific pools such as, “Commercial Real Estate – Office – Substandard,” which allows the bank to more accurately assess the risk inherent in each pool using qualitative adjustments differently within each of the more specific pools.

## 2) Applying a Historical Loss Factor: Historical Loss Rates vs. Migration Analysis

Once the institution establishes the appropriate segmentation, they must decide what methodology to employ to determine a historical loss factor within each pool. This step is crucial in order to make an accurate assumption of the losses that might be incurred in each pool in the coming period. There are two primary approaches: the historical loss rate approach and the [migration analysis](#) approach.

Many banks employ the historical loss rate approach, at least partly, because data collection is easier. The historical loss rate approach primarily requires tracking charge-offs and recoveries within each segment over a defined period of time.

### DID YOU KNOW?

[Sageworks ALLL](#) allows you to automate migration analysis for your FAS 5 analysis

# THREE STEPS TO EVALUATING A FAS 5 METHODOLOGY (CONT.)

## LOSS HORIZON

[A Sageworks survey](#)

found most banks use  
a 3-year or 12-quarter  
time horizon

Within this approach, the two primary challenges are (1) determining the appropriate number of periods of data to incorporate and (2) whether to apply an arithmetic average or weighted average of loss rates. Traditionally, institutions have used a longer time horizon that incorporates three to five years of loss data. The drawback of this is that it may not reflect the increased losses that have been incurred in recent years. As such, more and more institutions are now using a shorter time horizon such as a rolling four to eight quarters. Another option to ensure that more recent loss rates are appropriately taken into account is to use a weighted average that applies greater weight to more recent loss rates. Regardless of the number of periods used or the type of average that is applied, the institution must ensure that it uses historical loss factors that are indicative of the losses inherent in each segment of the portfolio at the current time.

The drawback of the historical loss rate approach is that it can be less effective in times of economic turbulence than a migration analysis approach. Gary Deutsch notes: “Although migration analysis is used less than the historical loss method, it is actually more effective at estimating inherent losses during times of economic volatility.” Under the migration analysis approach, institutions track the migration of loans from various buckets to charge-off status which can give a more accurate picture of how the current portfolio would migrate to loss. The basic methodology for migration analysis is to set up appropriate buckets to track within each segment. As an example, within consumer loans, this could be based on delinquency (Current, 30-59 days, 60-89, and 90+ Days Past Due), and within commercial loan segments, this could include general risk level (Pass, Special Mention, Substandard, and Doubtful). The institution must then determine the defined loss horizon.

# THREE STEPS TO EVALUATING A FAS 5 METHODOLOGY (CONT.)

As a simple example, let's say the institution uses eight quarters as the defined loss horizon. This would mean that the institution would take the total loan balance for that segment within that bucket (i.e., Commercial Real Estate – Office – Substandard, \$8,000,000). It would then use the amount of charge-offs during the subsequent eight quarters from this \$8,000,000 bucket to determine the loss factor for the CRE – Office – Substandard segment. The biggest challenge in migration analysis is the data collection process; it takes a minimum of four quarters with a structured data collection process to gather enough data to use this approach for estimating loss factors. The migration analysis approach can be more robust; however, for many institutions, the standard historical loss rate approach may still be adequate and most appropriate.

### 3) Evaluating Qualitative & Environmental Factors

Perhaps the biggest challenge that institutions face in the estimation of the ASC 450-20 (FAS 5) reserves is the determination of adjustments to take into account qualitative and environmental factors that may impact loan losses. These factors are inherently subjective, so institutions face scrutiny on the documentation used to justify any assumptions made.

# THREE STEPS TO EVALUATING A FAS 5 METHODOLOGY (CONT.)

## WHITEPAPER:

Qualitative Risk  
Factors - How to  
Add Objectivity to an  
otherwise Subjective  
Task

[Access the  
whitepaper](#)

The first judgment made in this process is to determine which qualitative factors to assess. A good starting point is to use the nine standard qualitative adjustments cited in the Interagency Guidelines on the ALLL. These can be modified where appropriate depending on the levels of risk within an institution's overall portfolio and within specific portfolio segments. Secondly, the institution must evaluate its portfolio and segments on each of the qualitative factors and apply a quantitative estimate to each qualitative adjustment. It is imperative that the institution documents all of its assumptions around the qualitative adjustment factors. For example, if an institution is evaluating the impact of "Changes in the volume and severity of past due loans and other similar conditions," the institution's documentation should reference its delinquency rates in that segment in context of historical delinquency in the segment.

Vincent Van Nevel, managing director of [Professional Bank Services](#), a bank consulting firm located in Louisville, KY, notes: "These adjustments can be highly subjective; however, if the institution has any prior experience with similar cycles or events in the past, it can research the impact such events had on its portfolio. This assumes similar underwriting practices were in effect in past periods.

Other sources for determining the magnitude of such adjustments include peer experience, and in particular loss experience by loan type for institutions experiencing higher loss experience." Additionally, where appropriate, the institution should reference trends in national, regional, and local economic data, which can be found through various sources, including the Federal Reserve Economic Database and the FDIC Regional Economic Conditions data, amongst others.

# THREE STEPS TO EVALUATING A FAS 5 METHODOLOGY (CONT.)

The institution can also consider employing a more quantitative approach for the estimation of the impact of these economic factors. This can be done through a simplified correlation analysis approach. For example, the institution can do a simple regression on their loss rates (using at least 12 periods) against an economic factor (i.e., using housing starts as correlated to loss rates in construction and development segments). Additionally, the institution can employ back-testing to match up its historical losses with the levels of its ALLL over past periods to show the historical accuracy of the assumptions used in its methodology. The estimation of the qualitative factors in this instance may still largely be judgmental and subjective, but a correlation analysis, peer comparisons, and historical back-testing can provide quantitative support to these judgments.

The most important thing to keep in mind when making all of the judgments used in assembling risk pools, applying historical loss factors, and making qualitative adjustments is that the institution should maintain extensive documentation of its methodology and the justifications for each assumption used. This will allow for a consistent process going forward and make it more difficult for the institution to be criticized by regulators around their Allowance estimation.

# FAS 114 CHALLENGES AND IMPROVEMENTS

While defending the FAS 5 (ASC 450-20) General Reserve calculations tends to be most cited by financial institutions when presenting ALLL, there are also many inherent challenges in the calculation of [FAS 114 \(ASC 310-10-35\)](#) Specific Reserves. Some of the biggest challenges and areas for improvement are outlined below:

## **1. Determining which loans should be evaluated under FAS 114 (ASC 310-10-35) versus under the Pooled Loans.**

Many financial institutions will start by using the criteria of separating out into FAS 114 (ASC 310-10-35) any loans that are risk rated Substandard or worse on the institution's risk rating system. One of the challenges inherent in this approach is that it is dependent on the institution having an effective risk rating methodology that is current and reflective of the level of risk on its loans. Bruce Vance from Advanced Bank Solutions says: "The primary challenge is the proper risk rating of loans, especially the identification of impaired loans... banking regulators are keenly focused on this area." To ensure the institution is not missing any loans that need to be evaluated individually, it should consider also looking at:

# FAS 114 CHALLENGES AND IMPROVEMENTS (CONT.)

1. All loans that have been labeled as a Troubled Debt Restructure (TDR). Most, if not all, of these loans should be evaluated under FAS 114 (ASC 310-10-35).
2. All loans that are considered to be in non-accrual. The bank still may have some threshold (by dollar volume), but they will want to ensure that the appropriate loans in this category are being evaluated under FAS 114 (ASC 310-10-35) in case some of these are not picked up by the risk rating criteria.
3. Loans that are at a certain level of delinquency (i.e., Days Currently Past Due > 90, or loans that have reached certain delinquency levels a set number of times).

Looking at loans using these other criteria can ensure that no loans that should potentially be evaluated for impairment slip through the cracks.

# FAS 114 CHALLENGES AND IMPROVEMENTS (CONT.)

Paradoxically, on the opposite end of the spectrum, one other potential pitfall of identifying loans for impairment is erring on the side of being too conservative. Vincent Van Nevel of Professional Bank Services, Inc. points out: “One of the biggest traps banks can fall into in the FAS 114 analysis is calculating impairment on loans that are really not impaired... For example, many banks are just being conservative and calculating potential ‘exposure’ on all substandard rated credits. Many of these credits may still be paying or modestly past due, but are not yet past due enough (90 days) to be considered impaired, nor are they truly collateral-dependent. Once the regulators see the bank has an impairment calculated, they will require it to be non-accrual and possibly a partial charge-off.” Whether erring to the side of being too conservative or not conservative enough in identifying loans for impairment, the bank needs to ensure it is using its risk rating system effectively and looking beyond it to other metrics like non-accrual status during this process.

## **2. Ensuring that loans are not double-counted for reserves under both FAS 5 (ASC 450-20) and FAS 114 (ASC 310-10-35).**

This is relatively straightforward, but it is sometimes overlooked. It is simply ensuring that loans that are being reserved for individually are not counted in the Pooled Reserve Analysis under FAS 5 (ASC 450-20).

# FAS 114 CHALLENGES AND IMPROVEMENTS (CONT.)

## WHITEPAPER:

How to Calculate your  
FAS 114 Reserves

[Access the  
whitepaper](#)

### 3. Determining whether a loan that is being evaluated for impairment under FAS 114 (ASC 310-10-35) should be evaluated using the “Fair market value of collateral” or the “Present value of future cash flows.”

From a strict accounting standpoint, loans that are considered “collateral-dependent” should be evaluated under the “Fair market value of collateral.” The contentious aspect lies in determining whether a loan should be considered “collateral- dependent” or not. Again, from a strict accounting perspective, any loan that is still expected to be supported by repayment from the borrower should be evaluated under the “Present value of future cash flows.” At a minimum, most if not all Troubled Debt Restructures should be evaluated in this way, as these are loans in which the terms have been modified or restructured and re-payment of a portion of the outstanding principal is expected.

For other loans, the line may be more blurry. If the borrower is still expected to make payments, the strict accounting perspective may say that the financial institution should evaluate the loan under the “Present value of future cash flows.” However, regulators may be more apt to want to see the impairment under the “Fair market value of collateral” for any loan that would rely on the value of collateral for recovery in the event of default. In these instances where the decision isn’t black and white, the institution should clearly document why they have chosen the Valuation Method that they have for the loan in question (particularly if they are using the “Present value of future cash flows”). It may also make sense to evaluate what the impairment would be under either method, so that once a loan becomes considered collateral-dependent (i.e., the institution deems that the borrower will not be repaying the principal), the institution can quickly change their impairment analysis towards looking at the collateral as the support for the loan.

# FAS 114 CHALLENGES AND IMPROVEMENTS (CONT.)

## COLLATERAL IMPAIRMENT:

Sageworks offers a free template to help calculate impairment for collateral-dependent loans

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### 4. Using the appropriate and updated values for impairment analysis under either method.

For each valuation method, there are some key aspects that need to be examined and accounted for appropriately:

#### a. Fair market value of collateral

- i. This method should use collateral values from an appraisal that is as current as possible. If the appraisal is outdated, the appraisal value should be updated accordingly.
- ii. If there are complexities around cross-collateralization or prior liens from other institutions, these need to be taken into account so that the institution is only including the equity value that could be used towards the loan in question.
- iii. Appropriate assumptions need to be documented for any selling costs that will be incurred in the event of liquidation. To the greatest extent possible, these assumptions should be documented.

# FAS 114 CHALLENGES AND IMPROVEMENTS (CONT.)

## **b. Present value of future cash flows**

- i. The institution needs to use the original contractual interest rate as the discount rate for the cash flows.
- ii. Ideally, the institution should set up a month-by-month analysis with the Expected Payment discounted appropriately for each month.
- iii. The institution should be wary of the “NPV” function in Excel, as this does not give an accurate Present Value unless appropriate adjustments are made to account for the appropriate timing of cash flows, particularly as it pertains to accounting for the “Total Recorded Investment” as a net outflow in the formula.

For both approaches, the institution needs to make sure it is taking into account all items that should be included in the Total Recorded Investment for the loan, including Outstanding Principal Balance, Accrued Interest, and Net Deferred Fees or Costs.

# FAS 114 CHALLENGES AND IMPROVEMENTS (CONT.)

**5. If a loan is evaluated for impairment and is found not to be impaired, then it should be moved back to its appropriate FAS 5 (ASC 450-20) pool and reserved for with other loans of a similar risk.**

This would refer to a loan that may be on the border of being impaired but upon analysis, it is found that the payments that are expected from the borrower would be expected to cover the entire remaining outstanding balance. In this instance, the loan is not impaired, and the loan should be reserved for along with its appropriate FAS 5 (ASC 450-20) pool.

Although the actual FAS 114 (ASC 310-10-35) calculations can be relatively simple, there are several areas where a bank can be criticized by regulators or auditors if they are not following FASB methodology or appropriately documenting their assumptions. It is imperative that a financial institution set clear loan policies for how they are making their assumptions on these items and that they clearly implement and document them in their ALLL estimation.

# ABOUT SAGEWORKS & THE AUTHOR

Sageworks ([www.sageworks.com](http://www.sageworks.com)) is a financial information company working with financial institutions, accountants and private-company executives across North America to collect and interpret financial information. Thousands of bankers rely on Sageworks' credit risk management solutions to streamline credit analysis, risk rating, [portfolio stress testing](#), loan administration and [ALLL calculation](#). Sageworks is also an industry thought leader, regularly publishing [whitepapers](#) and hosting webinars on topics important to bankers.



ALLL

[Sageworks ALLL](#) is the premiere automated solution for estimating a financial institution's reserve.

It helps bankers automate their

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## About the Author

Mike Lubansky is a director of consulting services at Sageworks, where he oversees product development, market research, and implementation in the financial institutions market.

Before joining Sageworks in 2009, he served as research analyst for the Cherry Hills Fund and as financial analyst for Humana. Prior to that, Mike spent time as specialty account manager for Pfizer and as district manager for Vector, a consumer products marketing firm. He is also a CFA Level 2 candidate. Mike received his MBA from the University of North Carolina at Chapel Hill and his bachelor's degree from Yale University.