

# Pools, Correlations and Methods at the Core of CECL Compliance

One of the most significant changes affecting financial institutions in recent years is the FASB pronouncement regarding evaluation of credit risk. Current Expected Credit Losses (CECL) requires banks, credit unions and any firms with instruments exposed to potential credit loss estimate what those future losses may be. While some regulations affecting financial institutions may change or be eliminated as political winds change, CECL is not regulatory legislation. While changes are always possible, CECL is much less likely to be altered for political reasons.

With potential increases in economic volatility, understanding credit exposure will be critically important to remaining competitive and profitable. Our ongoing analysis of CECL began by highlighting the importance of [setting up teams and identifying data needs](#). We're now turning our attention to creating pools, establishing correlations to external metrics and identifying methods for calculating loss rates.

## Creating Pools You Can Use

You have the data, so now what? As data is dissected and pools are created, you may find you don't have the data you will need. Initially, many institutions likely will segment pools only by collateral type. That may be fine, but does it give you needed information to accurately estimate the loss reserve under CECL and minimize the effect on capital?

Consider this: Pooling to more refined levels will tell you which markets are performing better than others and allow for informed pricing decisions. Pooling loans only by loan type does not provide insight as to where the losses actually come from and if the pricing for that level is appropriate. The data is available, so why not create pools that segment a loan portfolio by branch, cost center, FICO score ranges, loan-to-value ranges, geographic regions or possibly employer base? The pools may be created for any of those categories within a loan type, or you can combine them for even more detailed analysis.

## Establishing a Strong Correlation

Part of the CECL requirement calls for an assessment of how the current loss rate may change in response to forecasted economic metrics such as GDP, unemployment or forecasted interest rates. For example, if the historic loss rate for a pool has been .05 percent, and unemployment is expected to increase, maybe the expected loss rate should be adjusted to .07 percent.

It then becomes a question of which loss rates correlate to which economic metrics. That could be answered by graphing a historic loss rate to a historic economic metric and seeing how they relate. Do they move generally together, in that if one increases the other increases? Or do they move in opposite directions, negatively correlated? Is there a lag in the reaction of one to the other? Or is there no obvious relationship at all?

While always good to confirm with your auditor, the visual comparison may suffice as proof of the relationship and support the metrics used to determine the adjustment to the expected loss rate.

A more precise method would be to perform regression analysis between historic loss rates and external metrics. That relationship could be used to determine the adjustment and could be less subjective and more reasonable and supportable. But does it offer enough value and accuracy for the extra work and cost? Decide which is best for you and talk to your auditor.

## Methods to Determine Loss Rates

The most common analysis methods for determining projected losses are historic loan loss analysis, vintage analysis, migration analysis, probability of default and loss given default (PD & LGD), and discounted cash flows. Arguably, of those listed, the most common are historic analysis and PD & LGD. The least common is discounted cash flows, based on feedback from our client base.

FASB has stated you can continue to use your current methodology. However, each of those methods will be altered slightly to meet the spirit of the life-of-loan concept under FASB's CECL pronouncement. For example, the historic loan loss method traditionally takes the losses for a given year over the average or ending balance of that portfolio or group to get a rate. Then using those rates from prior years, an average is calculated resulting in the loss rate used to determine the allowance amount.

The change to that method will look at the losses associated with a balance from origination and through its life. If we have a portfolio with a balance originated 10 years ago with a life of 10 years, we would want to track the losses each year for that balance. Then we would take the total losses over the 10 years for that portfolio divided by the original balance to get a life of loan loss rate.

Each method will have similarly slight changes. So be sure to discuss with your auditor what changes are expected to the method you use.

When choosing a method, ask if it is possible and beneficial to use a different one for different loan categories. The answer could depend on how much history can be gathered to support the assumptions used in the calculation of the allowance. Will it be permissible, for example, to use the historic loan loss method for an auto portfolio and PD & LGD based on peer analysis for mortgages?

## Sustainable Approach to CECL Compliance

After identifying and gathering the correct data, finding the appropriate level to segregate the loan portfolios and determine correlations will be important. With that information, the assumptions used and resulting calculations of the losses will be more reasonable and supportable.

Discussing pools, correlation and methods with an auditor will help ensure understanding of the process as well as minimize the cost to the institution in meeting the standard.

After gathering the data, segregating it into appropriate pools, evaluating correlations and selecting methodologies, using the information beyond a purely reactive response can prove highly valuable. As our analysis continues, we'll discuss how to use that information strategically.

## About the Author

Thomas Caragher is the senior product manager for risk products within the Financial & Risk Management Solutions division of Fiserv. He is responsible for the overall direction and strategy of the company's asset liability and funds transfer pricing products. He joined Fiserv in 2005 after spending five years as an interest rate risk consultant. Prior to that, he worked in back-office operations at the Chicago Board of Trade and as a credit analyst for GreenTree Financial.

## Connect With Us

For more information about risk management solutions, call 800-872-7882, email [getsolutions@fiserv.com](mailto:getsolutions@fiserv.com) or visit [www.fiserv.com](http://www.fiserv.com).

Fiserv is driving innovation in Payments, Processing Services, Risk & Compliance, Customer & Channel Management and Insights & Optimization. Our solutions help clients deliver financial services at the speed of life to enhance the way people live and work today. Visit [fiserv.com](http://fiserv.com) to learn more.



**Fiserv, Inc.**  
255 Fiserv Drive  
Brookfield, WI 53045

800-872-7882  
262-879-5322  
[getsolutions@fiserv.com](mailto:getsolutions@fiserv.com)  
[www.fiserv.com](http://www.fiserv.com)

© 2017 Fiserv, Inc. or its affiliates. All rights reserved. Fiserv is a registered trademark of Fiserv, Inc. Other products referenced in this material may be trademarks or registered trademarks of their respective companies.

28451 08/17