## **b** BerryDunn

# **CECL** methodologies

### Guide

Choosing a method for estimating lifetime expected losses is a commitment. A commitment that signals, in spite of any other option, you're certain this method is the right one for you—your segment, portfolio, and institution. While you might be able to support a change in method later, it is much more likely you'll be living with this decision a good long while.

So, how exactly does one know which method is the right one? Use our guide to understand each method and access related resources.

Method	Resources
<b>Snapshot (open pool, static pool, cumulative loss rate)</b> This method tracks net charge-offs of a pool of loans whose membership is fixed from the chosen start date to estimated pool end of life (disposition) date. The average life would typically be the contractual term adjusted for prepayments. The resulting unadjusted lifetime historical loss rate is subject to qualitative adjustments determined and supported by management. The pool's amortized cost basis, both at the start date and as of the current reserve measurement date, is also used in the calculation.	This method was discussed in the following webinar: Practical Examples of How Smaller, Less Complex Community Banks Can Implement CECL supervisionoutreach.org/cecl/ methodologies-and-examples
<b>Remaining life and Weighted Average Remaining Maturity (WARM)</b> This method may appear to be most similar to historical loss calculations for ALLL. It uses average annual net change-off rates and remaining life to estimate reserves. The remaining life of amortizing loans is adjusted for expected payments and prepayments for use in the calculation. The resulting unadjusted historical loss rate is subject to qualitative adjustments determined and supported by management. The pool's amortized cost basis as of the current reserve measurement date is also used in the calculation.	This method was discussed in the following webinars: Practical Examples of How Smaller, Less Complex Community Banks Can Implement CECL supervisionoutreach.org/cecl/ methodologies-and-examples Weighted-Average Remaining Maturity (WARM) Method supervisionoutreach.org/cecl/ methodologies-and-examples
<b>Vintage</b> This method uses period-over-period (annual) net losses by year of origination (vintage) to derive estimated losses. The average life would typically be the contractual term adjusted for prepayments. The origination balance of each vintage is needed for this calculation. Historical loss patterns	This method was discussed in the following webinar: Practical Examples of How Smaller, Less Complex Community Banks Can Implement CECL supervisionoutreach.org/cecl/

methodologies-and-examples

management. The pool's amortized cost basis as of the current reserve measurement date is also used in the calculation.

are used to estimate future losses. The resulting unadjusted historical loss

rate is subject to qualitative adjustments, determined and supported by

#### Scaled CECL Allowance for Losses Estimator (SCALE)

This method was developed by the Federal Reserve (Fed) and is only a potential option for financial institutions with <\$1 Billion in assets.

SCALE is an example of a non-software dependent method that uses call report data to support CECL-compliant estimations.

#### This method and its companion tool were developed by the Fed. It was introduced in the following webinar:

CECL: Scaled CECL Allowance for Losses Estimator (SCALE) Method supervisionoutreach.org/cecl/scale

#### **Discounted Cash Flow (DCF)**

Widely considered the method best aligned with CECL requirements, DCF is also one of the more complex methods requiring more data. As a result, models and software are typically recommended to perform calculations.

DCF is a "bottom-up" approach, meaning a DCF is calculated at the loan-level using each loan's unique contractual terms. Results roll up to the segment or pool level. As a result, DCF can handle pools of loans with diverse loan terms, payment structures, etc.

This method requires management support of assumptions such as prepayments, timing, adjustments, etc.

#### Migration and roll rate analysis

This method tracks changes in credit quality of a fixed-membership pool between a determined start and end date. It measures tendency of loans, for example, to move from one state to another.

For measurement purposes, this method may be combined with other methods, such as snapshot, vintage, etc. Management should consider how to apply amortized cost basis, prepayments, etc.

#### Probability of Default (PD, LGD, EAD)

This method uses three key measures, Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD), to derive expected losses. Historical performance and loss experience is typically used to determine the first two measures.

Management should consider and support adjustments to PD, LGD, and EAD for current conditions, reasonable and supportable forecasts, and prepayments.

#### Additional considerations for this method:

Initial and on-going support costs Vendor due diligence and management Model and software support Model validations

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#### Additional considerations for this method:

After common risk characteristic segmentation, loans in the pool are further segmented by the asset quality indicator. As a result, this method requires consistently good-sized pools for best results. It may be better suited for software and model support.

#### Additional considerations for this method:

Due to the need for statistical analysis to determine key inputs, software or model support is likely needed.