



What lenders need to know about

CECL

How CECL is different from historic loss analysis, how your business needs to adjust, and what you can do now to ensure your business remains compliant and competitive.

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The end of the educated guess



CECL is driving banks to transform data into intelligence

For about forty years, lenders have measured losses from impaired loans based on historic annualized charge-off rates. That approach captures events that have already happened, such as regional economic downturns, but it fails to help banks make informed decisions about future risks.

CECL replaces incurred-loss models based on annual loss rates with expected-loss models based on life of loan loss rates. The significant difference is that while incurred-loss models show losses, expected-loss models forecast risk.

The digital crystal ball

Forecasting risk is tricky without a crystal ball. However, we have the next-best thing: data. CECL will require lenders to create detailed Allowance for Loan and Lease Losses (ALLL) pools based on the ages of loans (vintage), terms of loans (actual life of loan), and loss accumulation periods (relative position on the loss curve).

Loans of different ages and seasonings behave differently, so separate estimates have to be developed to address each vintage by loan age in each future year; for example, if a portfolio has an expected life of four years, four years of losses have to be projected for loans originated in 2017 (year one), three years for those originated in 2016 (year two), two for those originated in 2014 (year three), and one for those originated in 2013 (year four).

These projections must be made for each asset and risk rating pool, and justifiable macro and local economic projections have to be applied as well. There are also other ways to calculate CECL, such as creating a probability of default and loss given default for the life of each loan, although these are more likely to be employed by larger lenders who have the data and manpower to perform them.

“To know your future, you must know your past”

Knowing which information already exists is the first step in identifying gaps that need to be filled.

Organizations can start getting ready for CECL now by collecting detailed historical data on as many loan types as possible, and as far back as possible. Bigger banks may already have the tools and processes in place to capture this sort of information, while smaller institutions should evaluate their ALLL automation systems to determine whether their software is up to the job of capturing CECL inputs or if it needs to be upgraded or replaced.

Banks know how to capture historical data, so that first step won't be overwhelming for most. Predicting future risk is the tricky part, and it's going to take preparation and research to move forward with confidence.

The philosopher George Santayana said, “To know your future you must know your past.” He probably wasn't referring to CECL, but his words apply here.

Forward-looking estimates depend on the mapping of historical loan data to economic trends, such as rising or falling interest rates, a thriving or struggling economy, a healthy or weak real estate market, and so forth. Risks specific to a loan type or even a geographic area also must be considered.

With data and research in hand, lenders can gain insight into how their losses have tracked against macro indicators in the past and then use that intelligence to prepare for potential future outcomes.



CECL: how much will this hurt?

Lenders already have practices and policies in place to govern ALLL, so all that really has to change are the inputs—and the way organizations think about estimating losses. The fundamental concept, however, is the same: take all reasonable steps to predict the future state of the portfolio.

Larger organizations as a whole are better positioned to make the transition to CECL because they have plenty of data to drive the new calculations and enough expertise on staff to manage the associated IT tasks. Smaller lenders like community banks vary in their readiness; some, such as those with a high concentration of CRE loans, have already been collecting most of the data points needed to feed an expected-loss forecast, while others will be starting from scratch.

If possible, it is best to run CECL models now so multiple tests can be performed and systems and processes can be tuned before the standard becomes mandatory and penalties go into effect.

Context, clarity, and confidence with CECL

Implementing CECL will drive banks to collect more data, build more effective processes, and develop more robust methodologies. The key word here is more.

But more is not better by itself, and many organizations have learned the hard way that a lot of data does not necessarily equal a lot of insight. Data needs to be placed in context to be understood, and it needs to be understood in order to drive better decision-making. That is the aim of CECL—to help organizations gain a fuller understanding of why previous loans behaved as they did so the behavior of future loans can be predicted.

The end result for banking leaders should be greater confidence in their institutions' ability to withstand fluctuations in the economy and greater clarity on the risks associated with their decisions. Although change is never easy, the pay-off for organizations that do a good job of implementing CECL will be better decision-making and, as a result, lessened risk.



Sense and subjectivity

Developing your CECL calculations

Predicting losses is one thing. Defending those predictions to examiners is another. Both have the potential to become more challenging under CECL. The good news is that the way lenders capture and evaluate quantitative factors will remain largely unchanged. On the other hand, the use of qualitative factors will be substantially different for most organizations.

Qualitative factors help lenders forecast their expected credit losses more accurately than would be possible with quantitative factors alone. Quantitative data may tell a lender that there was a hiring slump in its region last year, but qualitative data tells a lender that the employment outlook in its area will be trending up due to a large factory relocation.



Nine known factors

Qualitative factors can be sliced and diced in many ways, but it's commonsense to classify them as external or internal factors.

EXTERNAL FACTORS

External factors are less predictable than internal factors, but they carry just as much weight, e.g.:

1. Value of the underlying collateral of collateral-dependent loans
2. International, national, regional, and local conditions
3. Effects of other external factors, such as competition or legal and regulatory requirements, on the level of estimated credit losses

INTERNAL FACTORS

Internal factors are those which are within a lender's control, e.g.:

4. Lending policies and procedures, including changes in underwriting standards and collections, charge offs, and recovery practices
5. Nature and volume of a portfolio and loan terms
6. Experience and ability of a lender's management team
7. Volume and severity of a lender's past due loans and similar conditions
8. Quality of a lender's loan review system
9. Existence and effect of any concentrations of credit and changes in the levels of these concentrations

Accounting for the unknown in CECL

Qualitative factors need to be as objective as possible. That’s hard because they are, by nature, subjective.

Regulators recognize this and have provided guidance to help institutions incorporate them. Still, examiners expect lenders to apply as much rigor as possible to their calculations; qualitative drivers are not supposed to provide a fudge factor for organizations that aren’t quite sure what their expected credit losses will be.

At the same time, the subjective nature of qualitative factors can be confusing and even overwhelming to lenders.

For these reasons, there are a few best practices that can help lenders fit these factors into their calculations effectively.

- **Use the factors recommended by the regulatory community as a starting point.** Possibly, some of your unique factors will be covered and you can take them off the table when you move onto developing your “other” factors.
- **Use a qualitative scoring matrix to maintain objectivity.** Put a value (such as “Very Likely,” “Neither Likely nor Unlikely,” or “Not At All Likely”) on each factor, rate it now, and revisit it on a periodic basis makes the most sense to update the rating in order to maintain ...
- **Directional consistency.** As conditions change, qualitative rates should change with them. That gives a lender the ability to review past trends to see if a qualitative factor moved in step with the trend; for instance, if the GDP and credit quality goes up, a lender’s reserve level should go down—and if it did not, an adjustment must be made.
- **Documentation is the best defense when an examiner questions a qualitative factor.** The more specific a factor is, the better it can be documented, so good documentation starts with well-devised factors. For instance, to revisit the example above, a lender in a coastal region may break out loans to commercial fishing operations from loans to charter boat businesses; they each involve boats, but their business conditions are vastly different, and each would require separate documentation clarifying the applicable calculations.





Tailor your CECL factors to fit your business

All of the factors above are helpful in performing accurate calculations, but they still leave a pretty big gap. Not all lenders are alike—in fact, few are alike. They each deal with a set of conditions specific to their markets, and these conditions don't fall into the external factors listed above.

For instance, a community bank based in a coastal region may lend money to fishing boat owners, but if the cost of diesel goes up or the weather is bad, those fishermen may default on their boat loans and the lender's losses may rise.

Banks should not hesitate to include and revise as many of these types of factors as are relevant to their businesses in their CECL calculations. In fact, these are exactly the types of factors that CECL is intended to cover.

CECL allows a lot of leeway for lenders to choose the factors that best reflect their portfolios. The nine suggested factors are not mandatory, and other factors are entirely up to the lender.

Ultimately, there isn't one right way to develop factors. What's important is that once they've been established, lenders should be consistent in applying them, revisit them on a sensible periodic basis, and put the data they provide to good use.

In short, decide what works for you, work it consistently, and then work to make it better.

NEED DATA?

The Federal Reserve Bank of St. Louis maintains a database of free economic data at fred.stlouisfed.org.

Do you want to know what the unemployment rate in your county is? FRED has that information. Do you want to know the historical income trends of commercial fishermen? FRED has that, too, and any data you draw from FRED will satisfy examiners.

Right-price risk and reap ROI



The impact of CECL on risk-based loan pricing

Just as every lender is different, every loan is different. Risk-based loan pricing allows lenders to assess the risk of specific loan products in the hands of specific borrowers and price them accordingly.

When lenders can tailor prices based on real-world knowledge of a borrower's worthiness combined with relevant external factors, it can manage its expected loss with greater precision.

Close your eyes and lend

Risk-based pricing looks at both the debtor and the market conditions. Up until now, the ability to evaluate those factors has been limited to historical data for the most part, with no automated way to include future projections.

That's going to change as CECL rolls out.

When lenders have made risk-based loans, they've based their decisions on narratives or judgment models. Because of uncertainty around these methods, many financial institutions avoided risk-based loan pricing entirely, choosing to price their loans the same for good borrowers and not-so-good borrowers alike, and without regard to market conditions that could influence the outcomes.

But pricing highly-valued loans with low debt service coverage ratios the same as lower-valued loans with high debt service coverage ratios doesn't make sense.

One-size-fits-all loan pricing can hurt a lender by starving it of income that could be put into its allowance or used to augment capital.

Off-label CECL infrastructure

Banks are recognizing that the CECL new systems they must put in place to create forward-looking estimations can also serve as risk-based pricing platforms. That isn't what the standard set out to accomplish, but once the investment in infrastructure has been made, there's no reason to avoid using it in this manner. The data migration and technology necessary to transition to CECL can represent a significant cost, so any additional uses for the processes will speed return on investment.

Most of the data necessary to drive risk-based pricing is already part of CECL; when lenders account for ALLL over the life of a loan, they are basically calculating that loan's overall risk—but with CECL, the loan-level detail will be greater than is currently the norm and will take into account factors of unique concern to each lender. These more robust analyses will enable lenders to generate sophisticated pricing models that will let them roll expected losses into the price of loans with greater precision.

Another benefit yielded by risk-based loan pricing is a more diverse portfolio. With the right automation tools in place, a lender can mix lower-yielding, lower-risk loans with higher-yielding riskier loans, which provides a means to serve an under-served market and mitigate risk while doing so.



CECL and built in best practices

In the past, risk-based pricing has carried with it a whiff of predatory lending practices. The issue has been that low-income borrowers are most likely to default, and therefore most likely to be offered high-interest loans they can't afford. However, because the CECL infrastructure will necessarily capture and contextualize loan data at a deep level, lenders should be able to answer examiners' questions about probable outcomes and disperse concerns. Lenders should still be careful to review their regulatory environment and requirements and identify any relevant regulations surrounding risk-based lending before going all in.

To use risk-based loan pricing, lenders need a methodology to identify and quantify loan-related costs, a strategy that includes risk-based pricing, and a decisioning process that can be applied to different grades of loans.

As lenders begin to plan their CECL implementations, these needs should be included from the earliest stages. It's easier and less costly to phase in planned features over time than to tack them on without notice at a later date.

Right-size reserves to free up funds

The impact of ALLL on income statements & capital

No banks want to sink more capital than necessary into reserves. They don't want to put aside too little, either. But without reliable, up-to-date data, that's exactly what happens.

All banks have to define what they allow in terms of losses. If a loss is allowed, the lender must set aside capital to cover it. CECL is intended to ensure that the amounts banks have in reserve are high enough to absorb expected loan losses.

An incorrect ALLL misrepresents the bank's earnings and clouds the condition of its health. Inaccurate ALLL reports can expose an institution to penalties and draw intense scrutiny from the Securities and Exchange Commission (SEC).

On the other hand, ALLL should not be too high because an oversized reserve ties up funds that could be lent elsewhere, taken as capital, or used to fund improvements.

For these reasons, lenders are eager to discover ways to gain true insights into their overall losses so they can safely adjust their reserves.

To serve these needs, the new CECL standard requires lenders to analyze greater volumes and more types of loan data than previously, and it also requires that external data be factored in so that forward-looking estimates can be reliably predicted.

Lender's choice of methods for estimating losses

CECL does not require the use of a particular estimation method; it only specifies that lenders choose a method that allows them to reasonably estimate the expected collectability of a loan and that the method be applied consistently over time. Banks may choose to use multiple estimation methods or to use different methods for different groups of loans, as long as they also use appropriate inputs for each one and are able to develop supportable forecasts of expected collectability.

A simple historical loan analysis is not adequate to meet the new requirements, so accounting methodologies will have to shift. The methods relevant to most lenders are migration, PD/LGD, and vintage analyses, although there are other options as well. The choices depend on the lender's environment and the loan pool that's being evaluated.

Migration analysis calculates ALLL by tracking the movement of loans as they migrate through different loan classifications in order to estimate the percentage of losses that will probably be incurred in a portfolio. It involves a rigorous process, which is perhaps why it's been underutilized in the past. Migration analysis has a lot in common with historical analysis, in that it determines the rate of loss a lender has incurred based on similar past due loans. The difference is that migration analysis is more granular than historical loss analysis, so it provides a truer picture of potential losses. To perform a proper migration analysis, a great deal of data has to be collected and a consistent risk rating methodology applied.

Probability of default/loss given default (PD/LGD) is a form of migration analysis. PD/LGD calculates the probability of loans experiencing default events (that's the PD) and matches them to the percentage of the defaulted loan balance that is charged off (that's the LGD). The formula can be applied by loan count, but most lenders take a balance approach that gives more weight to larger loans and shows the percent of total balance of the portfolio that has defaulted over the look-back period. The loss rate is found by multiplying the PD by the LGD, and can then be applied to the loan portfolio balance to determine expected future losses.

Vintage analysis shows how loans perform with age. With this method, a lender looks at the credit quality of a portfolio by analyzing net charge-offs in a homogenous loan pool comprised of loans that share the same origination period. Other methods cover a limited period in the lifecycle of a loan, so they can't provide a full picture of a loan's loss experience. Vintage analysis, on the other hand, provides a relatively accurate estimate of the unadjusted historical lifetime loss experience. This method is already used to evaluate retail credit card and mortgage portfolios.



Plan to succeed, but prepare to pivot

CECL allows lenders to use their judgment in developing estimation methods. Smaller institutions, for example, are not expected to use expensive modeling techniques, but lenders of any size are expected to make good faith efforts to meet CECL requirements. After the CECL deadline occurs and lenders have had a chance to make real-world adjustments to their methods, regulatory agencies plan to assess implementations and decide whether additional guidance is necessary.

At that time, lenders may have to revisit their CECL processes, but since the hard work of data collection and infrastructure build-out will have already been accomplished, any new guidance should be considerably less disruptive than the initial CECL shift.



Analytics add agility to ALLL



How analytics can help refine your ALLL

Making reliable forecasts requires a lot of data about a lot of dynamic conditions. Even lenders with good data processes and tools will be pressed to incorporate all the inputs they will need when CECL rolls out, and lenders without good data processes are going to have some hurdles they'll need to conquer early.

Data in, intelligence out

Data needs to be collected, put into context, and made actionable. The first task, collecting data, is the hardest because it can't be solved by writing a check for a technology tool—and if data isn't captured completely and accurately, estimations will never be accurate, leaving the institution exposed to the risk of a miscalculated reserve as well as attendant regulatory penalties.

Even today, many institutions are still keeping data in spreadsheets. Others are using software that isn't going to integrate well with the CECL solution they eventually select. And organizations that are well-prepared with good technology and effective processes are not assured that their CECL estimations will progress without a hitch; there are so many unknowns around CECL that a system that seems bullet-proof may reveal weaknesses when tested in live conditions after the new standard takes effect.

Lenders should start the process of assessing the maturity of their data management practices now so there is time to make improvements before CECL arrives.



The runway from ALLL to CECL

Lenders with adequate data should test new scenarios and methodologies by running them parallel to their current ALLL and comparing the results. Just coming up with the scenarios will reveal some gaps, such as loan type, term, and vintage, that need filling.

Many institutions are short on data; the points necessary to run CECL-compliant estimations simply don't exist in their archives. These lenders will have to rely on their core provider, turn to third-party vendors, or engage their IT team to come up with a workaround.

Analytics agility and ALLL

The volume, complexity, and fluidity of the data required under CECL would be impossible to analyze without a sophisticated analytics solution that performs predictive modeling.

An analytics solution will help lenders identify the data requirements and sources necessary to develop models. The resulting models can be segmented by loan type, vintage, etc., and even by the factors unique to a lender's business, and then run with any number of variables and with any number of conditions applied.

The end results can be compared to existing ALLL estimations and variables can be adjusted to see how they impact the reserve.

When data is properly integrated into an analytics solution, calculations can be produced in real-time and enhanced as needed. Lenders gain the ability to quickly develop loss models and forecasts that comply with defined business and regulatory requirements, and to easily revise the models and forecasts when requirements change.

The ongoing benefits of analytics

Many lenders are deeply concerned about the increased complexity CECL is going to add to calculating ALLL. There's no denying that more factors means more calculations, but with a strong analytics solution, the bulk of the work will be on the front end. Once the solution is in place, lenders will see improved efficiency in their operations, better agility to meet changing conditions, and increased accuracy in their ALLL estimations.



To ensure CECL compliance, the Baker Hill NextGen[®] CECL solution provides quality loan data and gives financial institutions greater flexibility in choosing CECL calculation models.

This solution seamlessly integrates into Baker Hill's loan origination system and provides access to ample amounts of high-quality origination data, as well as performance data needed for calculating loss allowances under the CECL standard.

"The experts at Baker Hill understand how important CECL-readiness is for our clients and have been hard at work making sure we can empower them to get ahead of this regulatory change so the impact on their business is minimal. The Baker Hill NextGen CECL solution is the go-to resource for the strategic planning required for CECL."

—**JOHN M. DEIGNAN** *President and CEO of Baker Hill*

Visit connect.bakerhill.com/cecl-consultation to schedule a consultation.

