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Selecting the Right Credit Model for CECL

CECL is coming. Is your financial institution ready?

In reaction to the financial crisis of 2008, the Financial Accounting Standards Board (FASB) introduced the Current Expected Credit Loss (CECL) standard with the goal of improving the accuracy of lenders' calculations of potential losses from debt on their books. The standard is an evolution from the existing incurred loss model, to one that is more predictive and forward-looking in nature.

Although the implementation date for firms that file with the Securities and Exchange Commission (SEC) has already passed, due to various delays the rollout for non-SEC-filers and non-public business entities (PBEs) will begin with the fiscal year following December 15, 2022. Most affected institutions will be required to begin reporting under the CECL standard in the first quarter of 2023.

But that is not as far off as it seems. In fact, if you are a privately held or non-SEC-filing bank or credit union and haven't started planning for CECL yet, you are already behind.

Begin Preparing for CECL Now

To get ready for CECL implementation, banks and credit unions should already be deep into the planning stage. Specifically, institutions should begin with the following key steps:

- » **Determine which approaches you can support with the data you have:** Conceptually, CECL was developed to help institutions forecast how their borrowers may behave. Broadly speaking, institutions can take one of two approaches to accomplish this: non-causal modeling and causal modeling. Read on for some key considerations in selecting the best approach for your situation.
- » **Assess the “hidden costs” of CECL:** Since CECL was introduced in 2016, we have seen that the cost and complexity of implementing the standard goes well beyond simply deciding on which new credit model to use. The American Bankers Association points out that “the ‘life of loan’ credit loss concept also presents operational complexities that can significantly increase costs at banks of all sizes.” Institutions can anticipate and should budget for a variety of expenses during their CECL journey, including those related to advisory, hosting, subscription, setup, forecasting, and model validation.
- » **Decide on the right partner to help execute your plan:** Once you have decided on the approach that will work best for your institution’s needs and established a realistic budget, it is time to start researching those partners that not only fill in the gaps, but understand how your institution can get the most return out of the process.

Comparing Non-causal and Causal Modeling

The first crucial step in implementing a CECL solution is to identify the types of data you have available to use in your modeling process. This data availability will not only determine what model you can support, but what methods of calculation that model can perform; and while there is a lot of discussion about methodology selection (e.g., Discounted Cash Flow, Probability of Default/Loss Given Default, Loss Rate, etc.), this is often conflated with model selection. Although providers of CECL solutions offer a wide range of modeling flavors, they can generally be grouped into two broad categories: non-causal models and causal models. Each modeling approach has its pros and cons:

1. **Non-causal modeling:** This approach is based on evaluating the historical performance of a group of borrowers. The primary drivers include criteria such as delinquency, accrual status, and rating migration, with certain financial ratios and analysis sometimes being employed as well.

Non-causal models are typically employed at the portfolio level, and sometimes incorporate a blend of factors. By looking at the historical activity for a group of loans, lenders are trying to capture the symptoms of deteriorating credit quality and anticipate future performance based on these factors. Non-causal modeling is one of the most common approaches taken by financial institutions and their providers, for good reasons. For one, almost every institution has access to this type of data. Also, these models tend to be easy, quick, and intuitive to use.

The main challenge with non-causal models is that most of the factors they analyze are lagging indicators – meaning they typically show up in the data after the root causes of the borrower’s troubles have already occurred—when it is too late to take proactive steps.

For example, when a loan goes delinquent, the events that caused that borrower to stop making payments most likely occurred well before that time. Likewise, if the relationship becomes chronically delinquent or has experienced other degradation, the lender will typically decide to downgrade the loan, and may even be forced to place the loan in non-accrual status (meaning the loan will no longer accrue interest for a period and the lender no longer recognizes income on that loan).

But the most serious downsides with non-causal modeling become apparent when considering the credit function of a bank. Commercial lenders rely on the “5 Cs of Credit” – capacity, character, collateral, capital, and conditions – when underwriting a new loan request. Future credit behavior is highly dependent upon the borrower’s *capacity* to repay and willingness to repay pursuant to the contracted obligation (read: *character*). They also don’t account for changes in economic, industry, and market *conditions*. Non-causal factors do not take these credit *drivers* into account.

Moreover, non-causal modeling takes a one-size-fits-all approach, using the same blunt instruments to determine the credit risk and future credit performance of all types of borrowers across many industries, geographies, and demographics.

2. **Causal modeling:** In contrast, causal modeling incorporates a vast array of true indicators of borrower health and credit quality, such as business financial statements, FICO scores, debt to income (DTI) ratios, and debt service coverage ratios (DSCR). Such factors are far likelier to signal the potential for future credit deterioration and default.

The pros of the causal model approach are easy to understand. In general, this approach aligns closely with how credit decisions are made during the underwriting process, and how loan offers are priced to the market. Causal factors also most clearly address the spirit behind the FASB's establishment of the CECL standard, which is to help institutions forecast realistic estimates of future credit losses and their impacts on the portfolio.

The pandemic crisis offered a compelling illustration of the causal model's value. As the coronavirus bore down on the U.S. in March 2020, millions of people lost their jobs, and countless businesses were forced to shut down due to mandated lockdowns and social distancing requirements. Yet, few of these people and businesses lost income during the crisis, as the federal government stepped in quickly to provide stimulus payments, Paycheck Protection Program loans, and enhanced unemployment insurance payments, while financial institutions approved massive forbearance and modification programs. With this unprecedented support, individuals and businesses managed to maintain steady cash flows during the crisis and DTI and DSCR ratios remained largely stable for many borrowers.

The challenge with implementing a causal model comes in the details. It is often difficult to access the right types and quantities of data, particularly for community financial institutions (those under \$10 billion in asset size). Many such institutions still use physical filing cabinets, legacy infrastructure, or perhaps (at best) an electronic imaging system to maintain thousands of credit files and associated documentation. It is difficult to build an effective credit model using data that is virtually inaccessible.

For a community financial institution, building a causal model is a heavy lift. It would require the bank to capture and access a wide range of data points to cover all the primary causal drivers, extract the data across every loan, correlate each data point with a series of economic variables (e.g., gross domestic product (GDP), home prices, unemployment rates, and used car pricing indexes), determine which data points are relevant to the institution's specific loan types and market, and exclude those data points that don't fit the model.

Oh, and the model would need to be regularly updated with fresh data and adjusted to consider changes in economic and market conditions over time. Loans booked two, five, or ten years ago would likely look much different from credits booked yesterday.

Very few institutions and vendors are able to take this approach. A statistically valid and relevant modeling sample must incorporate thousands of data points. For commercial loans, for instance, it goes beyond simply looking at how many loans have gone delinquent. It means looking at the financial statements of individual businesses over the course of several cycles to spotlight trends.

Fortunately, some advanced CECL solutions providers have already done the heavy lifting. With these solutions, all a lender needs to do is input the applicant's FICO score into the model, and the model is able to provide a reasonable and supportable loan loss forecast for that loan and for the entire portfolio. This empowers the institution to make smart, CECL-compliant decisions for allowance for credit losses (ACL) reserves.

Keep an eye out for the next article in this series, in which we will explore in depth some of the less obvious, "hidden costs" of CECL.

Moody's Analytics credit risk data, models, economic forecasts, advisory services, and infrastructure solutions support implementation of the CECL model. To learn more about Moody's Analytics solutions for CECL, visit us at: [CECL Solutions \(moodyanalytics.com\)](https://www.moodyanalytics.com/cecl-solutions).

¹ "Current Expected Credit Loss Standards (CECL)," American Bankers Association. <https://www.aba.com/advocacy/our-issues/cecl-implementation-challenges>

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