Grant Thornton

Building an effective CECL modeling approach

Integrated, transparent forecasting for sustainable CECL operations

Modeling is core to CECL's requirement to forecast and report expected losses on financial assets carried at amortized cost. Selecting modeling approaches is one of the most challenging aspects of the implementation and ongoing operation of a CECL program. The right approach to credit loss modeling should integrate predictive modeling, analytics, advanced data management, and accounting principles to drive sustainable CECL operations.

4 steps to an integrated CECL modeling approach

Financial institutions should not look at modeling as an isolated process, but rather as a multi-disciplinary approach encompassing an end-to-end view of CECL estimation from data sourcing to the transformation of risk loss model outputs to accounting information in the financial statements.

Following are four important considerations that should drive the development and implementation of CECL models include:

1. Data
Data is the building block for the creation of reliable models that inform strategic business decisions. For CECL, data accuracy is especially important when calculating expected credit losses. Forward-looking forecasting for CECL creates a different demand on the data quality and data granularity than what was needed under current qualitative and quantitative allowance estimation methods. Institutions may be faced with data challenges given broader and deeper requirements to support CECL approaches.
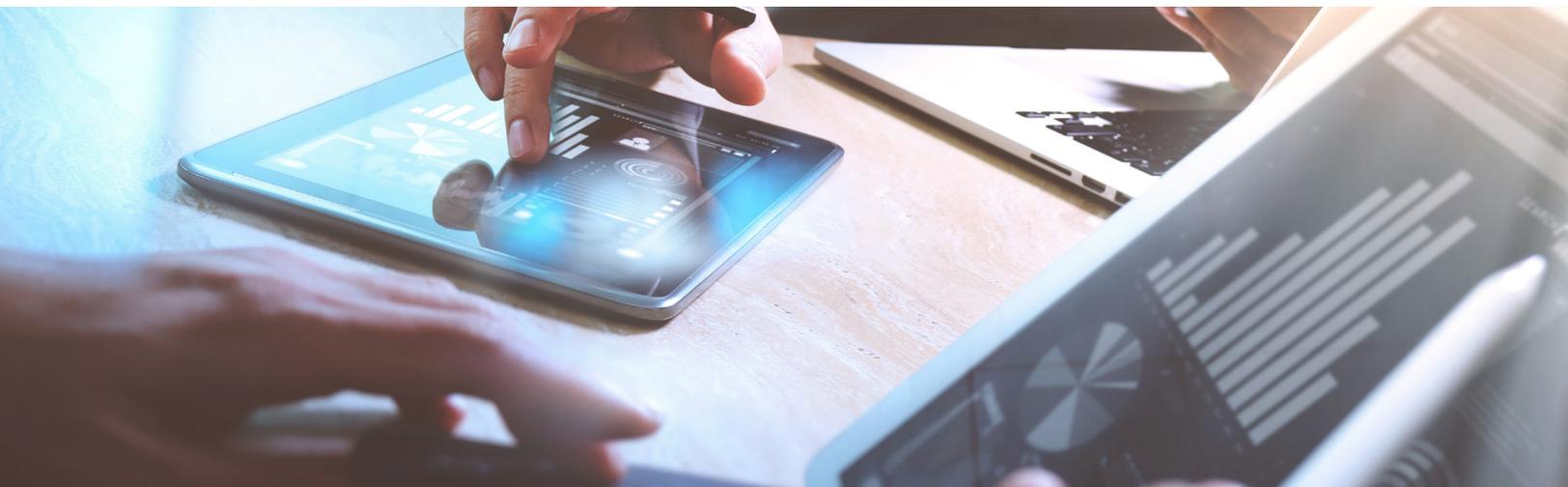
More complex models could require a sophisticated technology infrastructure and longer processing time

Leveraging the CCAR/DFAST infrastructure that is already in place is a good starting point for the CECL model development. However, two of the key differences between CECL and CCAR /DFAST are data specifications and data quality. CECL data must be auditable, must comply with Sarbanes-Oxley Act of 2002 (SOX), and must meet certain definitions, such as that the outstanding asset balances are defined as amortized costs. In contrast, while CCAR / DFAST data must be reconcilable to source systems and general ledgers, the data does not need to withstand the same quality requirements as CECL data. Therefore, the data dictionaries of CECL and CCAR /DFAST differ. Sustaining a CECL data environment presents new challenges, but it also offers a unique opportunity for institutions to organize an effective data environment.

2. CECL forecasting
CECL outlines that the forecast for an asset's losses over its life should be defined by two periods: first, a reasonable and supportable period, and second, the reversion to history period. The definition of these two periods is critical. For example, two banks may have two identical portfolios in terms of origination criteria, and terms and conditions. The impact of macroeconomic factors in both portfolios can be the same. But, the selection of the reversion to history period and its corresponding macroeconomic factors could produce CECL provisions that are totally different. This varied outcome could be solely based on the reversion to history period, assuming that the reasonable and supportable periods are both the same in terms of CECL provisions. This opens a window for model arbitrage, which might generate intense debate and controversy among CECL stakeholders.

3. Modeling terminology and approach
The new CECL standard provides an opportunity to bring allowance models and credit loss forecasting models under a common framework. The new environment requires a forecasting system of several dimensions: accounting, business, finance, and risk. The original structure needs to be enhanced to maintain historical data attributes at the most granular level. On top of these disciplines data science and predictive modeling are called upon to perform the forward-looking forecast for the life of the loan under the new accounting rules.

Forward-looking estimation creates the need to develop more complex forecasting models often based on probability of default (PD), loss given default (LGD) and exposure at default (EAD) methodologies as well as time series. The work of finance, business, accounting, and risk will require closer collaboration with data science and predictive modeling to generate steady and reliable forecasting of credit losses. At the same time, forward-looking forecasting has inherent variances based on probabilities of a default event taking place in the future through the life of the loan. These modeling variances and forward-looking assumptions will need to be appropriately presented in the notes to the financial statements.

Generally speaking, the selection of the modeling approach will need to take into consideration data, system, and technology requirements. More complex models could require a sophisticated technology infrastructure and longer processing time, which would create unnecessary burden on the data and financial reporting cycles.

Model risk management: Model development and validation implications for CECL

SR 11-07 guidance and validation techniques, including the following, should be consistently deployed when developing, validating, and maintaining CECL models:

- Conceptual soundness
- Outcome analysis
- Ongoing performance monitoring
- Strong documentation of assumptions

It is essential to follow and document model risk management policies to support choices concerning model methodology, data, assumptions, and criteria for selection of reasonable and supportable forecasts.

A new requirement for model validators will be to analyze the consistency of definitions and behaviors of dependent and independent variables. Further requirements will include supporting materiality thresholds and confidence intervals.

The transition to forward-looking estimations over the life of the loan forecasting period will impact the profitability of riskier portfolios and in turn will cause changes in the credit limit approval process and potential changes in the risk management policy. The modeling methodology will have broad impact across business processes and therefore must be managed by a coordinated team with an in-depth knowledge of modeling, accounting regulations, finance, risk and credit business processes. Specific areas likely to be affected by CECL modeling decisions include:

- Capital management
- Pricing and profitability strategies
- Data availability at the right granularity to meet accounting policy and modeling requirements
- Model risk management (MRM)
- Finance reporting cycle (e.g. month-end and earning releases)
- Regulatory and financial disclosures

4. Accounting regulations

Finally, model transparency is crucial for estimating the impairment losses on financial instruments and the ACL transitions from incurred losses to expected losses. Although adding a predictive component captures credit risk more reasonably, it increases complexity and requires additional assurance processes.

As CECL models will support key estimates disclosed in the financial statements, robust model risk management is paramount to consistently demonstrating compliance with SOX and other regulatory standards focused on effective internal controls and processes.

How can Grant Thornton add value?

Our specialized multi-disciplinary industry teams have the proven experience in allowance methodologies, financial accounting standards, credit risk management, regulatory compliance, operations, and enterprise-wide stress testing programs to help our clients with all CECL life-cycle and implementation program needs.

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