

CURRENT EXPECTED CREDIT LOSS WHY THE EXPECTATIONS ARE DIFFERENT

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The CECL Approach

By now institutions are very aware of the Financial Accounting Standards Board (FASB) change known by the popular moniker CECL and are likely assessing the implementation and implications of this momentous change. At a more basic level, questions continue to be raised concerning the rule itself, and in particular the environment this rule will usher in. The best perspective in viewing the rule may be the shift in risk management that is at the heart of the new rule.

There are two schools of thought in risk management. One is mitigation of events realized, and the other is forecasting events and taking actions to prevent the risks from occurring. This second approach is how CECL might be viewed in contrast to the established (40 years) banking practices. Instead of using the traditional tact of monitoring loans and reacting to changes in quality, by applying a CECL approach, exposures are modeled to forecast for a lifetime of loan behavior. The time frame perspective of “lifetime” rather than “realized” or highly probable due to “trigger” events is another sea change that adds to the forecasting complexity. These two concepts, robust modeling and forecasting through the use of scenarios¹, are imperative to successful implementation of CECL. The drivers of this change occurred during the financial crisis, during which banks were challenged to react to the economic downturn, because of the traditional approach also referred to as pro-cyclicality.²

Although banks are largely governed by the same guidelines and laws, most individuals that are knowledgeable with the business of banking would hesitate to say they are all the same. In fact, banks with many similar characteristics (e.g. geography, capitalization, etc.) often operate in significantly different ways. These unique attributes are conscious decisions by bank management to attract certain types of clients and business that align with the bank’s core business philosophy. Challenges occur when guidelines like CECL are adopted, that require very specific solutions be implemented, in order to adhere to the guidelines while continuing to maintain the banks operating model.

A review of the unique requirements of CECL, modeling and forecasting, to arrive at the correct capital and loss treatment requires a skillset that many banks (regardless of size) may not have on hand. The skills necessary go beyond the new modeling and forecasting required by the rule, making this that much more challenging. As most readers are intimately aware, robust data sets underly any type of modeling, and CECL takes this need to another level for many institutions. While the tasks associated with the forecasting may seem daunting, FRG’s experience with CECL and similar implementations (for instance Basel, IFRS9, IFRS17, LICAT) recognize the impact of data and would suggest that data “cleanliness” and consistency will rule the day.

As banks, in particular those that are less familiar with data requirements, prepare for satisfying the requirements for CECL there is a need to impose a structure to their data. In a statement released by the Board of Governors of the Federal Reserve System they list the broadening of required data for these new calculations as one of the top three concerns.³ This provides some insight into the breadth of data and its application. The regulations

¹ See the forthcoming Financial Risk Group CECL Scenarios publication for additional context

² Sarah Chae, Robert F. Sarama, Cindy M. Vojtech, and James Wang (2017), The Impact of the Current Expected Credit Loss Standard (CECL) on the Timing and Comparability of Reserves

³ <https://www.federalreserve.gov/supervisionreg/topics/faq-new-accounting-standards-on-financial-instruments-credit-losses.htm> The others are; Removing the “probable” threshold and the “incurred” notion as triggers for credit loss recognition and instead adopted a standard that states that financial instruments carried at amortized cost should reflect the net amount expected to be collected and Introducing a single measurement objective for all financial assets carried at amortized cost.

related to expected credit losses (ECL) in a collective or “pooling” of accounts with common risk characteristics, for example:

- Internal or external (third-party) credit scores or credit ratings;
- Risk ratings or classifications;
- Financial asset type;
- Collateral type;
- Asset size;
- Effective interest rate;
- Term;
- Geographical location;
- Industry of the borrower;
- Vintage;
- Historical or expected credit loss patterns; and
- Reasonable and supportable forecast periods.

Data

Data utilized for reporting are often very different from that necessary for modeling purposes. Data is the driver of the models that will be used to facilitate the models that satisfy the requirements, without a thorough plan a consistent, repeatable, and automated solution will be challenging. The main conclusion of the Basel Committee on Banking Supervision was that progress towards the management of risk data was “unsatisfactory.”⁴ Experience has provided FRG with a perspective on how this type of data plan will be manifested and the means by which it will be done for model implementation as well as on the reporting of data quality and completeness. The expanded data requirements require organizations to have a deeper understanding on these data available within the organization. The breadth of required data has grown exponentially, as has the granularity of the data to facilitate such needs as the appropriate pooling of assets by product. Other needs will require additional depth in these data, in addition to breadth, the proper development of models will require historical data to ensure correct “fitting.”

This expansion of data requirements will require organizations to look to other sources of data within the organization and potentially externally. It is critical that the quality of the data is measured to ensure model developers are aware of problems and have established policy to address remediation strategies where probable. This enhanced need to merge data, likely from the various sources, will almost certainly increase the complexity of the data processing and the need to standardize. Identifying and managing the various data sourced, and the complexity of the code required to prep the data for the modeling process, requires more rigorous data management practices to insure transparency and auditability is possible. For practical and regulatory purposes, it is critical that there is an audit trail that defines; where the data was sourced, the transformations applied, and the version of data used in a model process.

It is helpful to define and document a standard input structure for the modeling process. This will provide a separation of the data transformations required for standardization and integration across data sources and the transformations that are specific to the models. We have found that organizations are challenged to identify the root cause of outlier or problem model results when this separation does not exist. This approach to the “versioning” of the input data allows for the straightforward association of model results with the exact input data used to generate the results. Another common challenge in sourcing data is the need to manage user defined inputs. These types of inputs tend to be manual and error prone. Often errors in the data are not identified until much later in the process which is very costly and time consuming. Formalizing a systematic process to handle this category of input will provide large gains in efficiency of the solution. Ensuring data quality checks are executed up front in the process so the respective data owner is made aware of problems prior to upload time is critical. Defining a process with audit trails and data quality checks for user defined data minimizes resources needed to research and document model output issues. This is part of the holistic approach which along with the versioning of the input data, provides the ability to track the version of all inputs used by the system to generate a given set of results and the ability to reproduce those results.

⁴ Progress in adopting the Principals for effective risk data aggregation and risk reporting, Basel Committee on Banking Supervision, June 2018

An American Bankers Association discussion paper (amended in January 2016) makes the point that with regard to data “Banks will not want to be constrained in implementing future solutions that may improve their processes.”⁵ Creating solutions that are repeatable and expandable should be intrinsic throughout the planning and implementation.

Platform


Another point in the program, often done concurrently, to facilitate CECL is the articulation of the platform that will be utilized. The implementation of a CECL platform is, like the banks themselves, unique in each instance. Regardless of the regulatory requirements—Basel, CCAR, DFAST, IFRS 9, ALLL—FRG’s experience is that the creation of platforms should facilitate, and anticipate, requirements that can execute ad hoc, quarterly, semi-annual, and annual processes. These platforms are customized to the user’s needs, regardless of underlying solutions that may exist (e.g. SAS or SAS solutions).

To enable this flexibility, it is critical that the platform architecture be designed using separate functional components that allow users to dynamically configure the components for various runtime scenarios. We have found that having the ability to manage the following functional components of the platform are critical to building a flexible platform that can manage the changing needs of the users.

- Scenario Management
- Input Data Mapping and Registry
- Configuration Management
- Model Management

By designing each of these components as a separate module in the platform a user can manage each independently then assemble them as needed into a “Model Run” with the ability to select the version, data mappings, and models needed at runtime. This value of this approach is amplified by adding a playpen capability to the platform that allows business analysts to create a logical copy of the production functional components, edit them, and run what if scenarios. We have found enabling this functionality to get close to eliminating the need for IT related changes to the system to satisfy management and regulator ad hoc requests. In addition, it provides a powerful tool for analysts and modelers to perform more complex analyses.

Another important capability of the platform is the ability to manage the overall orchestration of the end to end process, e.g. workflow. The complexity of managing the dependencies from a technology standpoint and the various business units involved in generating, reconciliation, signoffs, and creation of the reports required should not be underestimated. Attempting to use email or spreadsheets to manage this process is not an acceptable solution as it is error prone and lacks the transparency and auditability required. It is important that the orchestration capability manages not only the technical processes running but also the functional handoffs and approvals required throughout the process. This capability should allow for comments and track ownership of tasks to provide clear accountability throughout the process.



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⁵ CECL Implementation Challenges: The Life of Loan Concept, <https://www.aba.com/Advocacy/Issues/Documents/dp-CECL-implementation-challenges-june-2016.pdf>

Platforms are customized to the user's needs, regardless of underlying solutions that may exist. A recent article in the *Journal of Accountancy* points out that CECL can be an opportunity to realize new efficiencies in Bank's technology space.⁶ However, this has been largely missed by most institutions.

Modeling

Building models for CECL requires a financial institution to be introspective, thoughtful, and big-picture oriented, to arrive at risk reward pricing. While CECL does not prescribe which models a financial institution should use, doing one's due diligence to consider the best model to use for a portfolio *at this time* cannot be stressed enough. While a bank may want to address the modeling process, and the CECL requirement in general, as "just another box to check" we would argue that there is missed opportunity with this thinking. CECL is a tremendous step forward in good risk-reward understanding which then allows for improved segmentation with its appropriacies pricing, etc. CECL affords financial institutions an opportunity to view their products through a different lens by making them consider items like pooling, impacts of a future scenario on losses, and changing risk profiles.

There are different modeling techniques that can be used to transition from the incurred loss methodology to CECL. One of the first questions we typically ask a client is whether they have models that have been used for Comprehensive Capital Analysis and Review (CCAR) or Dodd-Frank Act Stress Test (DFAST) and if they would like to consider them for CECL. If so, some modelling assumptions may require modification. For example, CCAR assumes an ongoing business and incorporates new loans into the forecasts. CECL is about the current book of business. Models that utilized some form of annualized loss assumptions will tend to overestimate CECL given the aging of the loans.

If a financial institution decides to build the models from scratch, then there are different ways to approach this. A search of the literature will provide these as common methodologies: discount cash flow, vintage analysis, cohort analysis, and PD and LGD models. The process of developing these methodologies into models can range from simple to complex. When we are working with a client our goals are: 1) To provide the best model to capture loss behavior for a given product or segment, and 2) to ensure the complexity of the model fits the capabilities and resources available at the financial institution. The latter point is one that should be underscored, as a model that is too complex may provide questionable long-term benefits to create and implement if it cannot be supported in the future.

Summary

Experience has taught that there are significant considerations in implementing CECL, but there are also some improvements that can be realized for institutions that develop a well-structured plan. Banks are advised to use this as an opportunity to realize efficiencies, primarily in technology and existing models. Considerations around data, platforms, and the models themselves should leverage available resources to ensure that investments made to address this change provide as much benefit as possible, both now and into the future.

More Information

FRG would welcome the opportunity to speak with you concerning the findings of this paper, as well as how the approaches developed may fit into specific environments. For more information contact the FRG Research Institute at Research@frgrisk.com or 919.439.3819. Visit us online at www.frgrisk.com.

⁶ Ken Tysiac (2017), Credit Loss Standard Implementation Tips, *Journal of Accountancy*, March 2017

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