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CRISIL
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Key challenges in CECL implementation

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1 Introduction

1.1 A paradigm shift

The Financial Accounting Standards Board (FASB) has proposed the current expected credit loss (CECL) method to compute credit losses, in alignment with global practices followed as per the international financial reporting standards 9, or IFRS 9. Dubbed the biggest-ever change in bank accounting, CECL represents a paradigm shift in credit loss recognition as it is a forward-looking model compared with the current *post facto* incurred-loss model. This would mean use of advanced statistical models, alterations to existing processes, and most importantly, more capital.

Impact points

- Both current and expected losses need to be calculated
- Estimates have to be incorporated into the model
- Loan losses through the asset life to be recognised compared with annual losses under the current methodology

1.2 Implications for banks

Banks will have to recognise credit losses through the lifetime of the assets and are required to monitor the assets for any indications or credit events that would affect their realisable value. That would mean higher provisioning, too. It has been estimated that the allowance for losses (provisions) will increase by 20-60% based on the methodology adopted. As asset values are impaired, regulatory capital requirements would increase.

2 Challenges in implementation of CECL

A change of this magnitude requires adequate preparation. The core of CECL is to have a forward-looking model to provide for credit losses. Implementation challenges are of two types:

1. Modeling and methodology challenges
2. Operational challenges

2.1 Modeling and methodology challenges

CECL requires banks to develop a methodology to estimate credit losses, but the FASB has not specified any model or approach to CECL. While this provides flexibility to banks, choosing the methodology will be a challenge.

There is no 'one size fits all' approach because of the varying requirements of banks in terms of analysing their loan portfolios. For instance, a smaller community bank that mainly has mortgage loans will have a different methodology to a large organisation that is into consortium lending. There will also be a significant difference in the scale of implementation and level of analysis as well.

Some of the important modeling challenges are:

2.1.1 Appropriate selection of model:

Banks have many choices when selecting the most appropriate model to compute their expected credit losses. They could use the loss rate model, the discounted credit losses model or the most commonly used probability of default (PD) / loss given default (LGD) model. Each model would yield a different expected credit loss number and that, in turn, would have a direct impact on profitability and capital requirements.

If a bank is already following a particular model, say PD/LGD, the model should be altered to incorporate forward-looking estimates. The model should also be capable of generating inputs for Dodd-Frank Act Stress Testing (DFAST) and Comprehensive Capital Analysis and Review (CCAR). If banks have access to historical data, they can then run parallel tests for different methodologies and arrive at the most appropriate one.

2.1.2 Data requirements:

Forward-looking analysis needs accurate data, so having access to ample historical data enables banks to make more reasonable and supportable forecasts on future losses. By shortlisting data needed for calculations, they can check if they are missing any key data points such as historical loss, migration analysis and vintage analysis. Other data may also be needed depending on the institution, distinct calculation and availability. For qualitative data, ample documentation will need to be at hand to appropriately estimate impact.

- Banks require loan-level granular data to support processes and calculations.
- Data is to be readily usable for analysis.
- Data is to be stored for all credit factors, and not just for those that result in loss.
- Database should be updated on a regular basis.

Specific factors with regard to nature of data can be analysed as follows:

1. **Quantitative data:** The CECL approach requires banks to estimate losses that could occur any time during the life of a loan asset. Such estimation requires a wide range of data, right from instances of defaults, impact of change in interest rates, credit rating, industrial profitability, delinquency data and collateral information.

2. **Qualitative data:** Qualitative credit risk factors need to be included, too. These 'Q' factors would greatly impact the calculation of expected credit loss, so banks have to decide on:

   a) Determining proper 'Q' factors to be used

   b) Finding data to substantiate the 'Q' factors

   c) Calculating credit loss based on reasonable assumptions

3. **Macroeconomic data:** Another important facet of data collection is the requirement to analyse credit loss factors in alignment with macroeconomic data. Macroeconomic parameters such as savings rate, fiscal surplus/deficit, GDP and its growth rate impact interest rate of loans. It is also important for banks to analyse and assess impact of these factors on quantitative and qualitative data factors.

As current models do not factor life of loan (LOL) loss concept, systems must be reconfigured and static data pools must be maintained to provide appropriate LOL loss rates. Estimation of loss rates of all the borrowers and reassessment at every reporting date requires a robust system and a huge repository of data. Accordingly, banks should start gathering as much relevant data as possible to facilitate calculation of provisions at the time of implementation.

2.1.3 Methodology of estimation - individual versus group

The CECL model specifies that banks can estimate expected credit loss either at an asset level or at a portfolio level. The choices involve a significant trade-off. If the assets are grouped and then tested for impairment, it is much less of a workload and data factors that are expected to remain similar for assets within a portfolio need not be collected at an asset level. That makes work simpler and saves time. However, if the estimation is made at a portfolio level, the CECL model prescribes that the assets should be tested if they have the same characteristics as other assets in the pool.

Banks also have the choice of adopting the portfolio or individual method. If so, numerous but small credits such as credit card loans or small trade credit can be combined and tested for impairment, resulting in significant operational gains for the bank.

2.2 Operational challenges

The process and workflow of banks should also be revamped to align them with the requirements of CECL. Some operational problems to be addressed are:

2.2.1 Information technology challenges

- Banks are required to maintain quantitative and qualitative client data at a granular level. They should have processes and arrangements in place to meet these requirements.
- Banks should also ensure high levels of accuracy and integrity of data because CECL results will be audited and the requirements of the Sarbanes-Oxley Act also apply. The increased emphasis on accuracy calls for even more stringent controls across a wider scope of data elements and systems.
- Due to the significantly increased frequency of estimation, higher demand on system capabilities and need for strict controls, many of the manual processes used in stress testing and capital planning will not be acceptable

in the CECL model. Greater automation and integration of systems will be necessary. Enabling intra-month runs will require institutions to reduce manual processes to a minimum, and in the case of daily runs, to eliminate them completely.

- The CECL models put in place will have to be tested for accuracy before process integration.

2.2.2 Cost of compliance

- Allowance will likely be much more volatile, potentially necessitating additional regulatory capital buffers
- Complying with CECL requires data capacity and modelling resources that could increase operational costs.

2.2.3 Audit and disclosure requirements

- CECL regulations require significantly higher disclosure requirements. The impact of CECL is to be explained to stakeholders and be computed from period to period within public reporting deadlines.
- Internal control requirements over the loan origination function are likely to expand under CECL. Every new loan would contribute to reduction of existing capital and as a result, would require accurate estimation.

3 Overcoming challenges: A comprehensive approach

In view of the above challenges, banks are required to formulate effective solutions to comply with CECL standards. This change requires a coordinated and organisation-wide effort. In order to enable banks to comply with CECL regulations better, CRISIL GR&A proposes a five-point strategy:

1. Identifying and validating historical, current and macroeconomic credit data and using them as inputs in credit risk modelling.
2. Building a comprehensive work flow and using quantitative models such as discounted cash flow or PD/LGD models
3. Interlinking work flows between existing models for smooth transition and implementation
4. Building predictive models as a supplementary, with data forecasting and stress testing
5. Reconciling outputs with existing financial and regulatory systems

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