

# Deploying an Efficient Expected Credit Loss Provisioning System

## Abstract

The requirements mandated by the International Financial Reporting Standards 9 (IFRS 9) and US GAAP Accounting Standards Code 326 (ASC 326) for the calculation of expected credit loss (ECL) pose challenges with regard to the data required, complexity of calculations, and the amount of human judgment and estimation required. A robust and adequate internal control system is therefore essential to ensure efficiency, accuracy of calculations, and continuous adherence to the compliance requirements. A weak or inadequate internal control system for ECL provisioning can potentially result in misstatement of profits in turn leading to incorrect capital provisioning. This paper discusses the criticality of internal controls in ensuring ECL compliance and suggests ways to establish effective control process besides highlighting the importance of continuous monitoring and development.

## Strong Internal Controls: Need of the Hour

A robust internal control system is integral to ensuring the reliability of financial reporting in financial institutions. The stringent requirements of impairment provisioning put forth in the International Financial Reporting Standards 9 (IFRS 9) and US GAAP Accounting Standards Code 326 (ASC 326) have made this all the more crucial. The new standard mandates the calculation of impairment loss provision based on the expected credit loss (ECL) model instead of the incurred loss model. The calculation of impairment provision based on the ECL model requires a multitude of data, calculations, and judgment to arrive at the appropriate provision. This underscores the need for a complete evaluation and validation of the internal control processes to ensure continuous adherence to IFRS 9 requirements.

Impairment provision is an important component that impacts the profitability of banks. Provisioning based on ECL methodology requires the impairment systems and processes to be highly responsive to current conditions and future forecasts. Due to its significance and the complexity involved, internal controls related to impairment provisioning is a major focus area for auditors as well. As part of the audit, the adequacy of internal controls as regards operational effectiveness as well as governance is tested. Banks and financial institutions extensively use statistical models to calculate values such as probability of default, expected life of a financial instrument, expected recovery, and so on. Usage of statistical or financial models in the estimation of ECL brings with it a series of associated risks related to the input data as well as the working of the model itself. This emphasizes the need for establishing robust internal controls to ensure the accuracy of ECL calculations. An inadequate internal control system for ECL provisioning can contribute to incorrect ECL provisioning leading to misstatement of profits and the financial position of an entity in turn leading to inadequate capital provisioning.

Therefore, it is very important for banks' senior management to establish adequate controls necessary for compliance with the ECL provisioning requirements. This covers the entire process starting from the appropriateness of data and the data source to the reasonableness of the assumptions to integrity of the systems and processes (both manual and automated) involved and so on.

Table 1 lists some important areas where strong internal controls are required.

ECL process areas	Examples of controls required
<p><b>Data integrity</b></p> <p>ECL calculations require historical, current and forward looking information. The data used should be accurate, complete, and relevant for the instruments or portfolios.</p>	<ul style="list-style-type: none"> <li>■ Data quality standards</li> <li>■ Data validation checks</li> <li>■ Exception handling and reporting policies</li> <li>■ Clearly defined access permissions</li> </ul>
<p><b>Calculation models</b></p> <p>The calculation models deployed in the ECL process need to be appropriate for the purpose for which it is deployed. Models need to be evaluated on an ongoing basis to check whether they are relevant and adequate for the instruments or portfolios for which the ECL assessment is to be performed. Any changes in the product features, risk assessment parameters, macroeconomic or related factors need to be captured correctly in the models.</p>	<ul style="list-style-type: none"> <li>■ Regular model performance review.</li> <li>■ Process for evaluating the changes in macro-economic factors and their effect on ECL</li> <li>■ Model re-calibration and model re-validation processes, rules for segregation of duties for model creation, validation, and monitoring</li> </ul>
<p><b>Assessment of credit quality</b></p> <p>The credit risk parameters and the thresholds to be applied for the assessment vary across instruments. The correct identification and monitoring of the credit risk parameters and thresholds to be applied are crucial to ensuring adequacy in ECL provisioning. Consequently, they will need to be monitored on an ongoing basis.</p>	<ul style="list-style-type: none"> <li>■ Process to identify and monitor the relevant credit risk parameters, thresholds, and validation rules</li> </ul>

Table 1: Major Areas Requiring Strong Internal Controls

## Next Steps

While designing the internal control system, adequate thought needs to be given to key elements such as segregation of duties along with necessary maker/checker rules, establishing checks, validations and reconciliations, usability testing, process optimization, and so on. Automated processes need to be implemented to ensure adequate controls. Let us analyze a few critical areas where entities can take steps to ensure effective controls.

### Data management

Data requirements for ECL calculation span past, current, and future (forecasted) data. Some of these overlap with regulatory reporting requirements such as capital adequacy, stress testing, and credit risk reporting. Banks must leverage the synergies between these processes by enabling seamless interaction between the finance and risk functions, systems, and processes. Transforming the data management landscape to build a common data architecture can be the solution for several data related challenges such as incorrect data, unreconciled data, and other data integrity issues. In addition,

a common data architecture will pave the way for predictive analytics equipping banks with the insights and intelligence required for arriving at forward-looking ECL estimations besides raising the overall efficiency of the data management function.

### **Calculation models**

ECL calculations require various components such as probability of default (PD), loss given default (LGD), and exposure at default (EAD) to be projected based on forward looking factors. The models used to make these projections can be made more robust and effective by leveraging analytics technologies which in turn will help in arriving at the requisite forward-looking estimations needed for ECL calculations. Moreover, these models can help predict default behavior and other indicators necessary for effective credit quality assessment. Entities can also explore cloud based solutions for effectively transitioning from the current traditional models, which have severe limitations in addressing the requirements of forward-looking estimates.

### **Continuous monitoring**

Continuous monitoring is crucial to ensure that the control processes remain up-to-date, relevant, and adequate. As the business and the economic conditions evolve, the parameters and factors that influence the ECL computations and the extent of the impact of such factors might also vary. It is therefore crucial to perform continuous audits to monitor and validate internal control systems.

## **The Way Forward**

Given that lack of adequate internal controls can have far reaching impact, financial institutions should develop and establish an adequate control system. As ECL calculations have overlaps across different functions (for instance, finance, risk, treasury), these functions need to be viewed together and integrated processes designed to ensure adequate controls. There is no 'one-size-fits-all' when it comes to controls. It depends heavily on the systems, processes, the internal policies, and management decisions of individual organizations. A personalized approach that takes into account the complexities and uncertainties involved in the estimation processes of specific entities is a key imperative to designing the right control system. Technologies such as cloud computing and data analytics can play an important role in this. Entities would do well to tap into the immense potential of these technologies and establish effective and future-proof internal control systems to ensure compliance with ECL requirements.

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