

ICFR • INSIGHTS, ISSUES, AND PRACTICES

A GUIDE TO IMPLEMENTING
Internal Control over Financial Reporting
for the

Current Expected Credit Loss (CECL) Standard

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Committee on Corporate Reporting

ICFR • INSIGHTS, ISSUES, AND PRACTICES

IMPLEMENTING INTERNAL CONTROL OVER FINANCIAL REPORTING *for the Current Expected Credit Loss (CECL) Standard*

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ICFR: Insights, Issues, and Practices highlights noteworthy circumstances that may affect how management establishes good ICFR and performs an attestation around the effectiveness of internal controls specific to CECL to comply with Section 404(a) of the Sarbanes-Oxley Act of 2002 (SOX). Management should determine whether and how to respond to these ICFR Insights, Issues, and Practices under the existing requirements of the rules of its regulators and relevant laws. Management should determine whether and how to establish policies and processes (inclusive of internal controls) based on specific facts and circumstances. The statements contained herein are non-authoritative; they do not establish rules or reflect any auditor or regulator determination or judgment about the application of ICFR for CECL.

Introduction

The Financial Accounting Standards Board (FASB) issued the final current expected credit loss (CECL) standard on June 16, 2016. As a result of this standard, preparers may face the inherent challenges associated with enhancing their credit loss estimation methodology (i.e., data, models, production, consolidation, reporting, and analysis for all stakeholders), and may also experience significant efforts in designing controls and developing documentation to maintain an effective system of internal controls. This *Internal Controls over Financial Reporting (ICFR): Insights, Issues, and Practices* document has been developed by Financial Executives International's (FEI) Committee on Corporate Reporting (CCR) to outline specific issues management is likely to consider in association with changes needed to document and evidence their governance processes and internal controls to support management's best estimates of allowances for credit losses under the CECL standard.

This document is not authoritative literature. *ICFR: Insights, Issues, and Practices* is intended to provide preparers with internal control considerations and example documentation around a subset of issues they may experience when adopting CECL. The insights provided are intended to be thought provoking; therefore, they do not represent an all-inclusive or one-size-fits-all approach. It is expected that preparers will leverage the considerations and examples provided, but they will ultimately need to calibrate the information to the respective risks, judgments, and complexities involved with adopting CECL based on the facts and circumstances surrounding the entity (inclusive of relevant policies and procedures established by management) as well as the size and capabilities of the entity. The topics and examples presented in this *ICFR: Insights, Issues, and Practices* document are intended to highlight some of the most prominent challenges and considerations expected to be encountered by financial institutions in adopting the CECL standard, implementing internal accounting controls, and complying with Section 404(a) of SOX given the anticipated significance of the impact to those institutions. Appendix C provides similar CECL internal control insights that nonfinancial institutions should consider.

It is our view that the application of internal control principles to CECL would be more efficient and effective if companies adopting this new standard shared insights and examples of key internal control areas addressed during the implementation process. We believe many companies will have similar issues and questions. It is our hope that companies will want to participate in this process and share their own perspectives on techniques and approaches that appropriately balance the costs and benefits of particular controls related to CECL. Users of this document who wish to provide their perspective and/or who seek future engagement on the topic, are encouraged to contact the following: techacct@financialexecutives.org.

■ Implementation Oversight

A frequent topic of discussion when adopting accounting and reporting standards that involve significant inherent judgment is what type of evidence and documentation to prepare. However, a detailed understanding of management's process for implementing the standard and developing accounting estimates often satisfies many concerns associated with this topic. Relevant documentation of the process to develop the CECL approach might include a summary of the following information:

- The senior management oversight mechanism established to provide reasonable assurance that the CECL adoption was thoughtful and that it included appropriate internal governance practices (e.g., establishment of a CECL council consisting of senior management members that meets periodically to discuss issues, key decisions, and progress around adoption)
- Key stakeholders involved within CECL transition workshops (corporate controller, credit officer, etc.) and their qualifications (particularly in relation to the scope of involvement by third parties)
- Methodology development and validation, including, as applicable:
 - » Decision around the pooling of financial assets based on similar risk characteristics to satisfy the collective assessment requirement in CECL as well as the method for monitoring and assessing credit risk per the CECL standard
 - » An understanding of the behavioral characteristics of the pooled financial assets to determine an appropriate loss estimation approach (roll rate, loss rate, aging schedule, vintage analysis, probability of default/loss given default, discounted cash flow [DCF] vs. other approaches)
 - » Decision around the selection of the historical loss periods that form the basis for the estimate of credit losses under CECL as well as how loss rates are developed
 - » Decision as to which internal and external factors are expected to be different in current and future periods and are not already reflected in historical losses and the period over which and how reasonable and supportable adjustments can be made
 - » Decision around the method and period over which an entity will revert from loss rates within a reasonable and supportable forecast period to the historical loss experience applied to the end of the contractual term of the portfolio
 - » Decision around prepayments being included as a separate input or embedded in the credit loss information
 - » Input received and considered from industry and regulators if relevant and/or factored into key decisions
 - » Evidence and interpretation of trial/dry runs of models/calculations
 - » Use of third parties, such as vendors
 - » Any additional facts that support the methodology developed
- Development or modification of accounting policies (examples outlined below)
 - » Definition of key terms/concepts (reasonably expected troubled debt restructurings, reversion period, purchased with credit deterioration, etc.)
 - » Interpretation and decision papers that are eventually developed into position papers documenting implementation decisions
- Presentations provided to board of directors' governance committees (e.g., audit or credit committee of the board) regarding updates around the CECL adoption

To assist with the documentation around implementation oversight, see the proposed Implementation Oversight Summary Example Outline included in Appendix A.

Often, the oversight provided for adopting significant accounting standards is formalized into an entity-level control or captured as part of an existing entity-level control. An example of an entity-level control that captures the adoption of CECL and evidence that would likely be maintained to support the effectiveness of the entity level control are outlined below:

Entity Level Control Description	Sample Evidence
<p>The Accounting Policy Leader develops and maintains the entity's accounting policies; analyzes and coordinates the implementation of new accounting standards, including identifying what standards require working groups; establishes pre-implementation controls as necessary for the adoption of new accounting standards determined to be significant; and maintains the Accounting Policy Manual.</p> <p>To the extent that a new standard requires the company to consider modifying its policy manual, the accounting policy department interprets the new guidance on behalf of the company and translates that guidance into a policy that conforms with Generally Accepted Accounting Principles (GAAP). Changes to the Accounting Policy Manual are reviewed and approved by the corporate controller or a designee, and documentation supporting accounting policy decisions is maintained.</p>	<p>Sample evidence includes a mix of the following:</p> <ul style="list-style-type: none"> • Documented inquiry with the Accounting Policy Leader and relevant accounting policy subject matter experts regarding the overall implementation project approach and key stakeholders involved • Reviewed drafts of accounting policies • Implementation Oversight Summary Example memo (see Appendix A) • Presentations, agendas, or minutes from project meetings with key decisions and considerations • Draft disclosures • Materials provided to the board and management governance committees regarding adoption status and key decisions • Documentation, including questions and items identified for follow-up by reviewers and how those items were resolved <p><i>Note: Evidence expectations typically correspond to the level of complexity in the application of the accounting standard and/or in the development of accounting estimates. Given the significant impact of CECL on most financial institutions, evidence expectations may be greater than past accounting standard implementations.</i></p>

Ongoing Review of the Credit Loss Estimation Methodology Developed

A good practice for management to institute after adopting their credit loss estimation methodology (a culmination of processes used to facilitate the CECL approach) is a governance process to periodically validate the methodology. To design an effective validation, consideration should be given to whether a party independent of the methodology development, estimation processes, and credit approval processes should be utilized. An independent group that could be used as part of independent periodic validation is internal audit staff, a risk management unit, a model validation unit, an outside accounting firm, or another contracted third party from outside the institution. Consideration should be given to whether the independent group possesses the relevant knowledge and expertise to review the model validation as well as a framework to be used to assess the model and classify findings/observations.

Example of an ongoing methodology monitoring control description:

On at least an annual basis, the credit team conducts a review of the credit loss methodology established, including review of the pooling performed (classes of financing receivables and portfolio segments), key assumptions, and calculations performed. The internal audit staff also performs an independent review of the credit loss estimation methodology. Significant changes (significance determined based on pre-determined threshold/qualitative characteristics) to the methodology/assumptions/calculations are reviewed with the credit committee with participation from internal audit and the credit team to determine whether such changes should be instituted, monitored going forward, or not implemented as part of the ongoing governance process.

The frequency of periodic validation is judgmental. As a result, an entity could identify triggering events to support the determination of when a validation of the methodology would need to take place. Consider the need for a monitoring process/control activity to determine whether triggering events have occurred. Some triggering events to consider (to the extent that they are determined as being significant) are outlined below:

- Changes in credit risk (e.g., borrower circumstances, changes in underwriting, recognition of write-offs, and changes in the products, business, and loan characteristics)
- New products for which an entity does not have credit loss history
- Significant changes in the current and future expected external factors that impact credit losses (e.g., economic conditions such as employment, growth, and home prices)
- Credit loss measurement of the asset should be performed individually because the asset no longer has similar risk characteristics

Risk and Controls to Consider Around Forecast Data

Accounting Standards Update No. 2016-13 (“ASU 2016-13”) *Financial Instruments – Credit Losses* does not specify a single method for measuring management’s best estimate of allowance for credit loss; rather, it allows a variety of reasonable approaches as long as the estimate of expected credit losses achieves the objective of the FASB’s new accounting standard.

ASU 2016-13 also states that when developing an estimate of expected credit losses, an entity shall consider available information relevant to assessing the collectability of cash flows. This information may include internal information, external information, or a combination of both relating to past events, current conditions, and reasonable, supportable forecasts. An entity shall consider relevant qualitative and quantitative factors that relate to the environment in which the entity operates and that are specific to the borrower(s). When financial assets are evaluated on a collective or individual basis, an entity should consider all relevant information that can be obtained without undue cost or effort. Furthermore, an entity is not required to develop a hypothetical pool of financial assets. An entity may find that using its internal information is sufficient in determining collectability.

ASU 2016-13 broadens the information considered when measuring credit losses to include forward-looking information (i.e., forecast data). The processes and controls management may have in place for other existing estimates that incorporate forward-looking information may provide a good starting point when considering the design of controls over forward-looking information used for CECL.

Forecast data present important risks around management judgment that need to be considered in relation to a system of internal controls. As a result, proper planning will likely be helpful in determining that all relevant risks and controls are in place to provide reasonable assurance that the forecast data are reasonable and supportable. Given the nature of the inherent risks and uncertainties typically associated with forecast data, it is also important to consider the documentation efforts that may need to be in place to show that the forecast data are reasonable and supportable.

Large complex financial institutions will likely utilize various forms of forecast data as inputs into their respective models to project expected credit losses. Sample data inputs to develop the expected credit loss forecast for home lending are outlined below:

- Economic variables (home price indices, treasury yields, GDP growth rates, and unemployment forecasts)
- Internal lending data (historical loss experience, credit score, loan to value (LTV), and delinquency status)

Economic Variables

The economic variables identified represent forecast data normally received from an external reputable source, but they can also include internal forecasting. The effectiveness of controls such as these will depend on the issuer involving the appropriate members of management in the forecasting process; involved members should have relevant expertise to create, detail, review, and provide oversight of the forecast (including oversight of forecast information provided by a vendor). In addition, a first step prior to executing these control activities would be to establish the relevance and reliability of the data sources being utilized. Example risks and their respective control activities with such inputs are identified below.

Note: Bracketed language at the end of each risk description throughout the document represents the financial statement assertion(s) associated with the risk identified. Furthermore, the control activities are not written to prescribe the appropriate design of a control (e.g., frequency and precision), completeness and accuracy of information used in the control, or how an effective management review is performed and have been drafted in varying level of detail.

Risk Description	Control Activity									
The economic variable assumption is not relevant or appropriate for use in the allowance for expected credit losses calculation. [valuation]	<p>CECL-01* The Economic Scenario Approval Committee (ESAC), which is comprised of the chief risk officer, chief credit officer, chief financial officer, treasurer, chief operational risk officer, and corporate controller, meets quarterly to approve a range of economic scenarios to reflect management's best judgment on a probable range of outcomes and relevant data that form the basis of forecasting and business planning.</p> <p>The ESAC would consider sensitivity testing, stress testing, and/or probability weighting to develop its best judgment. The output of the review will be captured in meeting minutes and a memo and will include criteria used for investigation.</p> <p><i>Note: ESAC is responsible for documenting assumptions, identification of key economic variables, and appropriate governance of the economic scenario process.</i></p>									
	<p>CECL-02* On a quarterly basis, the credit risk manager reviews the key economic variable inputs (home price index, 10-year treasury yields, U.S. GDP growth rate, and unemployment forecasts) obtained by the credit risk analyst (and approved by the ESAC) to be utilized within the <i>Allowance for Credit Losses Forecast Model</i> to confirm the data aligns with external sources as outlined below:</p> <table border="1"> <thead> <tr> <th>Key Economic Variable</th><th>Source</th></tr> </thead> <tbody> <tr> <td>Home price index forecast</td><td>Case-Shiller National Home Price Index forecast</td></tr> <tr> <td>10-year treasury yield</td><td>Bloomberg</td></tr> <tr> <td>U.S. GDP growth rate forecast</td><td>Federal Reserve forecast</td></tr> <tr> <td>Unemployment forecast</td><td>Bureau of Labor Statistics forecast</td></tr> </tbody> </table> <p>The review also ensures that the most current information for the respective period/horizon is utilized. Any differences in external sources outlined above and/or period/horizon utilized are discussed with the preparer and adjusted/fixed to align with the appropriate source or approved if the difference is determined to be acceptable or appropriate through appropriate governance considerations prior to use within the <i>Allowance for Credit Losses Forecast Model</i>.</p> <p>The credit risk manager also conducts a qualitative review to confirm the relevant economic variables have been identified and thus are complete while considering changes, if any, to the company, economy, methodology, geographic operating model, etc.</p> <p><i>*The control ID used in this instance for purposes of illustration can be found in Appendix B.</i></p>	Key Economic Variable	Source	Home price index forecast	Case-Shiller National Home Price Index forecast	10-year treasury yield	Bloomberg	U.S. GDP growth rate forecast	Federal Reserve forecast	Unemployment forecast
Key Economic Variable	Source									
Home price index forecast	Case-Shiller National Home Price Index forecast									
10-year treasury yield	Bloomberg									
U.S. GDP growth rate forecast	Federal Reserve forecast									
Unemployment forecast	Bureau of Labor Statistics forecast									

Risk Description	Control Activity																				
<p>The economic variable assumption obtained from an external source is inaccurate.</p> <p><i>[accuracy and valuation]</i></p>	<p>On a regular basis (including at year-end), the credit risk analyst completes a review of the sources utilized for each of the key economic variables by comparing utilized data with at least one other reputable source to verify that there are no unusual variances¹. If unusual variances exist, further investigation is performed to determine whether the external source remains appropriate to use or whether a different source should be utilized. Listed below are the external sources utilized along with at least one comparable reputable source for the key economic variable and the variance percentage that would be considered unusual and therefore require follow-up.</p> <p><i>Note: Timing is also a factor when selecting the appropriate source.</i></p> <table><tr><th>Key Economic Variable</th><th>Source</th><th>Alternative Source</th><th>Unusual Variance</th></tr><tr><td>U.S. Home Price Index forecast</td><td>Case-Shiller National Home Price Index forecast</td><td>Federal Housing Finance Agency forecast</td><td>[predefined % threshold]</td></tr><tr><td>10-year U.S. Treasury yield</td><td>Bloomberg</td><td>Wall Street Journal</td><td>[predefined % threshold]</td></tr><tr><td>U.S. GDP growth rate forecast</td><td>Federal Reserve forecast</td><td>International Monetary Fund forecast</td><td>[predefined % threshold]</td></tr><tr><td>U.S. Unemployment forecast</td><td>Bureau of Labor Statistics forecast</td><td>N/A: No alternative source</td><td></td></tr></table> <p>The credit risk manager reviews the analysis performed by the credit risk analyst to verify that information included in the respective analysis agrees with respective support obtained, reputable sources agree to the table outlined above, data obtained tie to the corresponding period reviewed, variance calculations are accurate, and the appropriate follow-up/decisions were made regarding any unusual variances identified. If a determination is made to adjust the utilized data, that decision should go through the appropriate governance approval control (i.e., credit committee approval).</p> <p>¹ <i>"Unusual variances" will vary from company to company but should be clearly defined and pre-established in advance of the review.</i></p>	Key Economic Variable	Source	Alternative Source	Unusual Variance	U.S. Home Price Index forecast	Case-Shiller National Home Price Index forecast	Federal Housing Finance Agency forecast	[predefined % threshold]	10-year U.S. Treasury yield	Bloomberg	Wall Street Journal	[predefined % threshold]	U.S. GDP growth rate forecast	Federal Reserve forecast	International Monetary Fund forecast	[predefined % threshold]	U.S. Unemployment forecast	Bureau of Labor Statistics forecast	N/A: No alternative source	
Key Economic Variable	Source	Alternative Source	Unusual Variance																		
U.S. Home Price Index forecast	Case-Shiller National Home Price Index forecast	Federal Housing Finance Agency forecast	[predefined % threshold]																		
10-year U.S. Treasury yield	Bloomberg	Wall Street Journal	[predefined % threshold]																		
U.S. GDP growth rate forecast	Federal Reserve forecast	International Monetary Fund forecast	[predefined % threshold]																		
U.S. Unemployment forecast	Bureau of Labor Statistics forecast	N/A: No alternative source																			

Internal Lending Data

The historical credit loss experience of loans with similar risk characteristics generally provides a basis for an entity's assessment of expected credit losses. Internal lending data inputs have a different risk profile and require unique controls depending on their relevance.

Assessing the significance of the various internal lending data inputs will require professional judgment because not all inputs will likely have an equal impact on the CECL calculation and/or models utilized for the CECL calculations; however, those determined to have a significant impact will likely present the greatest risk of misstatement and will therefore warrant more granular controls tailored and scaled to the level of risk.

Example risk and controls around internal lending data inputs are outlined below:

Risk Description	Control Activity
Loans are not appropriately classified at inception. <i>[accuracy and existence]</i>	Prior to final boarding of the loan information to the system of record, the loan relationship manager inspects draft loan data elements entered in the system of record by an operations consultant, such as collateral details (including proof of collateral interest perfection), industry type, origination date, and maturity date, in comparison to the credit agreement or other authoritative source. All discrepancies are communicated back to the operations consultant for correction, and the review is repeated until all key data elements are accurate. The loan relationship manager authorizes the loan to pass from draft to active status.
Loans are not appropriately classified due to modifications. <i>[accuracy and existence]</i>	Prior to recording any loan changes to the system of record, the loan relationship manager inspects draft modified loan data elements entered in the system of record by an operations consultant, including collateral details, industry type, origination date, and maturity date, in comparison to the modified credit agreement or other authoritative source. All discrepancies are communicated back to the operations consultant for correction, and the review is repeated until all key data elements are accurate. The loan relationship manager authorizes the loan modification to pass from draft to active status.
Loan accrual status is inaccurate. <i>[accuracy and valuation]</i>	The consumer loan system of record is configured to flag all loans 90 days past due for nonaccrual treatment (other than credit cards, which are written off at 180 days past due). The loan relationship manager receives a notification upon flagging, and they are required to authorize the nonaccrual status or provide a rationale to support the conclusion that the loan should remain on accrual. The loan portfolio manager reviews the rationale provided by the loan relationship manager. If follow-up is required, the loan portfolio manager does not approve the rationale until resolution. <i>Note: In this situation, it may be appropriate to separately identify and test a control that addresses the reliability of the configuration established in the consumer loan system of record.</i>
Collateral valuation is inappropriate. <i>[valuation]</i>	All appraisals of collateral are received from pre-approved sources. The completed appraisal is subject to a secondary review to verify the methodology applied is consistent with expectations and that the assumptions utilized are accurate and supported based upon a comparison of the assumptions to internally developed metrics. Any assumptions that deviate from a pre-defined threshold are investigated and resolved prior to the use of that appraisal in downstream controls or processes.

Risk Description	Control Activity
<p>Loan balances are overstated due to the inclusion of loans that should be charged off.</p> <p><i>[accuracy and valuation]</i></p>	<p>On a monthly basis, the system generated charge-off exception report lists all incomplete problem loan reports for the month. Loan relationship managers provide an explanation for any problem loan reports that should not be completed during the month. Senior portfolio executives review the report and the loan portfolio manager explanations during problem loan meetings to determine whether all required problem loan reports have been completed, which are then subject to their review.</p> <p>On a monthly basis, loan portfolio managers present problem loan reports to senior portfolio executives to assess the accuracy of loan-level detail, assumptions used in the analysis, and the accuracy of calculations performed by considering historical performance, quantitative data, professional expertise, and intricate knowledge of the borrower for each facility to determine the accuracy of any identified charge-offs (or lack thereof), including the consideration of collateral valuation. Based on the results of the discussion, the senior portfolio executives prepare details for all authorized charge-offs for the month and send this list to the operations consultant for entry in the system of record.</p> <p>On a monthly basis, the operations consultant receives the listing of all charge-offs authorized by senior portfolio management during the problem loan meeting. The operations consultant enters the adjustments in draft form in the system of record. The loan relationship manager reviews the draft charge-off and authorizes the final booking in the system of record or communicates necessary changes to the operations consultant. The review is repeated until the draft charge-off is accurate.</p>
<p>Loan balances are understated because recoveries are not recorded.</p> <p><i>[accuracy and valuation]</i></p>	<p>As recoveries are received, the operations consultant records the draft recovery in the system of record. The loan relationship manager reviews the draft recovery and authorizes the final booking in the system of record or communicates necessary changes to the operations consultant. The review is repeated until the draft recovery is accurate.</p>
<p>Credit grades assigned to loans are incorrect at inception.²</p> <p><i>[accuracy and valuation]</i></p> <p><small>² The identification of data elements controlled at inception and throughout the contractual term of the loan (i.e., change management) are expected to be consistent with the identification of relevant inputs in the various downstream processes that drive the estimation. The data elements identified within are for illustration purposes only and are not meant to represent a complete population of data elements that need to or should be addressed.</small></p>	<p>During the underwriting process for each new loan, the underwriting consultant enters borrower financial data into a spread tool, and the spread financial data are entered into the asset rating tool, which provides the consultant with a recommended credit grade. The underwriting consultant adds qualitative factors to consider in the asset rating tool and provides a subjective assessment of the appropriate credit grade. If the recommended credit grade and subjective credit grade differ, the underwriting consultant provides further detail to support the subjective assessment. The loan relationship manager reviews the summary from the asset rating tool and either a) authorizes the credit grade or b) provides feedback and returns the asset rating tool to the underwriting consultant for correction.</p> <p>Prior to final boarding to the system of record, the loan relationship manager inspects draft loan credit grades in the system of record to the authorized asset rating tool. All discrepancies are communicated back to the operations consultant for correction, and the review is repeated until the credit grade is accurate. The loan relationship manager authorizes the loan credit grade to pass from draft to active status.</p>

Risk Description	Control Activity
<p>Credit grades assigned to loans are inaccurate due to changes in the borrower profile.²</p> <p><i>[accuracy and valuation]</i></p> <p>² The identification of data elements controlled at inception and throughout the contractual term of the loan (i.e., change management) are expected to be consistent with the identification of relevant inputs in the various downstream processes that drive the estimation. The data elements identified within are for illustration purposes only and are not meant to represent a complete population of data elements that need to or should be addressed.</p>	<p>Depending on the company's policy (e.g. annual or quarterly), the loan relationship manager enters borrower financial data into a spread tool, and the spread financial data are entered into the asset rating tool, which provides the loan relationship manager with a recommended credit grade. The loan relationship manager adds qualitative factors to consider in the asset rating tool and provides a subjective assessment of the appropriate credit grade. If the recommended credit grade and subjective credit grade differ, the loan relationship manager provides further detail to support the subjective assessment. The senior credit officer reviews the summary from the asset rating tool and either a) authorizes the credit grade or b) provides feedback and returns the asset rating tool to the loan relationship manager for correction. Any changes are communicated to operations for booking in the system of record.</p> <p>Prior to recording credit grade changes to the system of record, the loan relationship manager inspects the draft modified loan credit grade entered by an operations consultant to the authorized asset rating tool. All discrepancies are communicated back to the operations consultant for correction, and the review is repeated until the credit grade is accurate. The loan relationship manager authorizes the modified loan credit grade to pass from draft to active status.</p>
<p>Troubled debt restructuring (TDR) status of loans is not accurate.²</p> <p><i>[accuracy and valuation]</i></p> <p>² The identification of data elements controlled at inception and throughout the contractual term of the loan (i.e., change management) are expected to be consistent with the identification of relevant inputs in the various downstream processes that drive the estimation. The data elements identified within are for illustration purposes only and are not meant to represent a complete population of data elements that need to or should be addressed.</p>	<p>On a quarterly basis, a file with all modifications is extracted from the system of record. The accounting manager reviews the listing to develop an expectation of which modifications would require the completion of a TDR worksheet. The listing developed by the accounting manager is compared to the listing of all completed TDR worksheets for the quarter. Any discrepancies are researched and a) a TDR Worksheet is completed or b) an exception is documented in the control documentation.</p> <p>As modifications are authorized by the loan relationship manager, they are flagged by the loan relationship manager as requiring accounting review for TDR treatment. The accounting consultant completes the TDR worksheet for each of these flagged loan modifications. The accounting manager reviews the TDR worksheet and a) authorizes the TDR or b) returns the TDR worksheet for correction.</p>
<p>Data requested by the corporate credit team from the line of business is inaccurate or incomplete.</p> <p><i>[accuracy and completeness]</i></p>	<p>The line of business credit risk analyst prepares a submission on behalf of the home lending group regarding key home lending information (e.g., loan amount, loan identifier, credit score, LTV, term and delinquency status) for the corporate credit team. Loan information is extracted from the respective system and input into the corporate credit team's Excel spreadsheet, and the total loan amount is reconciled to the general ledger. Variances above a predetermined threshold are investigated to either explain or correct them. Furthermore, the information gathered is reviewed for accuracy by setting data integrity thresholds to identify exceptions (with each exception either adjusted or explained). The business credit risk manager reviews the respective information and support to verify the submission is accurate and complete. Once the review by the business credit risk manager has been completed and any follow-up issues are resolved, a certification is completed with signoff by the credit risk manager and submitted to the corporate credit team along with the completed corporate credit team's Excel spreadsheet.</p>

Risk Description	Control Activity
Data elements housed in systems of record interfaces are incomplete/inaccurate, leading to inaccurate data recorded in the CECL database. <i>[accuracy and completeness]</i>	On a monthly basis, data from various systems of record are automatically uploaded into the CECL database. To validate the completeness of data in the CECL database, management performs a reconciliation between the data within the database and the general ledger. The reconciliation report is generated through a system query. Variances identified above a predetermined threshold are investigated and documented by the Credit Analyst, and the reconciliation is subsequently reviewed by the Credit Manager.
Data requested by credit team are not fit for use in the credit model. <i>[accuracy]</i>	On a quarterly basis, the credit team hosts a meeting with data element owners and business credit risk managers to discuss data needs, including changes to data inputs, to confirm the data element owners understand the data needs and the business credit risk manager provides accurate data to the credit team. The data element owner and business credit risk manager certify that they understand the discussed data needs.

Calculation of Expected Credit Losses

While effective controls around data inputs are foundational for the new expected credit loss calculation, the calculation itself emphasizes designing effective management review controls over each of the significant judgments needed to determine how the data inputs are utilized to develop the expected credit loss recorded in accordance with ASU 2016-13. Example risk and controls around the calculation of the expected credit loss are outlined below:

Risk Description	Control Activity
Inappropriate periods are used to develop the expected credit loss calculation (e.g., reasonable and supportable forecast period, reversion to historical loss information period, and post-reversion period). <i>[valuation]</i>	On at least an annual basis, the credit risk manager reviews of each period utilized within the expected credit loss calculation compiled by the credit risk analyst. This review verifies that expected credit losses were calculated over the contractual term of the financial assets (or group of financial assets) and adjusted for prepayment expectations (if applicable), considers all possible information reasonably available to determine the adequacy of the reasonable and supportable forecast period, and assesses whether the reversion to the historical loss information period was performed in a rational, systematic basis. To the extent that issues are identified during the review, follow-up is conducted and resolved prior to the final calculation being performed. A senior management review committee, consisting of the chief risk officer, chief credit officer, corporate controller, chief loan officer, and heads of consumer and commercial credit, review the expected credit loss calculation on a quarterly basis, including: <ul style="list-style-type: none"> Any changes to the approach and a credible challenge to whether changes should or should not have been made to the approach; Adjustments to confirm that significant internal and external factors were considered/ addressed; and The recommendation provided by the credit risk manager regarding the management adjustment needed, if any, for the allowance.

Risk Description	Control Activity
<p>The expected credit loss calculation does not consider available information relevant to assessing the collectability of cash flows.</p> <p><i>[valuation]</i></p>	<p>On a quarterly basis, the credit risk manager performs a review to verify that all available, relevant information was considered to develop the expected credit loss calculation compiled and calculated by the credit risk team. The available, relevant information considered includes internal information, external information, or a combination of both relating to past events, current conditions, and reasonable, supportable forecasts. Consideration is given to the available information, relevant qualitative and quantitative factors, and the impact to the operational environment as applicable to borrowers. To the extent that additional information is identified during the review, follow-up is conducted and resolved by making and supporting adjustments to the calculations or providing an explanation as to why adjustments were not needed.</p> <p>A senior management review committee, consisting of the chief risk officer, chief credit officer, corporate controller, chief loan officer, and heads of consumer and commercial credit, review the expected credit loss calculation on a quarterly basis, including:</p> <ul style="list-style-type: none"> • Any changes to the approach and a credible challenge to whether changes should or should not have been made to the approach; • Adjustments to confirm that significant internal and external factors were considered/ addressed; and • The recommendation provided by the credit risk manager regarding the management adjustment needed, if any, for the allowance.
<p>Inappropriate models or spreadsheet calculations are utilized.</p> <p><i>[valuation]</i></p>	<p>On at least an annual basis, the calculation/model goes through an independent validation by quantitative analytics specialists. This validation involves routines to thoroughly assess risks to confirm the calculation/model appropriateness and capability, effectively challenge development, and communicate decisions regarding its use to the business. Such a validation is not intended to verify the calculation/model is "correct." Instead, the purpose of model validation is to:</p> <ul style="list-style-type: none"> • Assess whether a model is appropriate for its intended use; • Provide a critical analysis so decision-makers can better understand a model's capabilities, stress points, and limitations; • Assess the associated model risk and controls in place to mitigate that risk; • Identify flaws in the logic or errors in the data, model development, or model implementation; and • Identify required model or spreadsheet changes <p>Any exceptions identified by independent validation are resolved with the quantitative analytics specialists prior to its next use.</p>
<p>Model(s) and/or calculation(s) (including quantitative or qualitative adjustments made to outputs) are inappropriately factored into the calculation of expected credit losses in relation to GAAP requirements.</p> <p><i>[valuation]</i></p>	<p>The corporate oversight team (comprising competent individuals independent of the corporate credit team) reviews the model(s) and/or calculation(s) (inclusive of adjustments) on at least an annual basis to confirm they are performed in accordance with GAAP. Changes/adjustments made are assessed and challenged to confirm that they reflect appropriate changes (e.g., changes in unemployment rates, property values, commodity values, delinquency, or other relevant factors). Issues identified are resolved prior to validating the calculation for use by the corporate oversight team.</p>

Risk Description	Control Activity
<p>Prepayment estimation calculation does not consider relevant internal information.</p> <p><i>[valuation]</i></p>	<p>The credit risk team performs an initial calculation of the prepayment estimation forecasting prepayment speeds. The credit risk manager performs an independent review that includes:</p> <ul style="list-style-type: none"> Recalculation of all key calculations and/or validation that all calculations were independently reviewed; Review of the methodology used to perform the estimation calculation and a check that changes, if any, are explained and appropriately supported; and Review of any potential contradictory evidence with expected prepayment speeds (i.e., asset liability management committee, Comprehensive Capital Analysis and Review Stress Test (CCAR), etc.). <p>The credit risk team resolves any exceptions/miscalculations identified by the credit risk manager prior to the use of prepayment speed assumptions within any models/ calculations.</p>
<p>There are missing or inappropriate management adjustments for changes in trends, conditions, and other relevant factors.</p> <p><i>[accuracy and valuation]</i></p>	<p>The credit risk team performs the complete initial expected credit loss estimate. The credit risk manager performs an independent review that includes:</p> <ul style="list-style-type: none"> Recalculation of all key calculations and/or validation that all calculations were independently reviewed; Review of any management adjustments performed above a predetermined threshold to verify that appropriate support is maintained; Review of all management adjustments to verify the amount is reasonable given knowledge of the event/condition driving the adjustment; and Assessment of management judgments for completeness when considering changes in trends, conditions, and other relevant factors. <p>A senior management review committee, consisting of the chief risk officer, chief credit officer, corporate controller, chief loan officer, and heads of consumer and commercial credit, reviews the expected credit loss calculation on a quarterly basis, including:</p> <ul style="list-style-type: none"> Any changes to the approach and a credible challenge to whether changes should or should not have been made to the approach; Adjustments to confirm that significant internal and external factors were considered/ addressed; and The recommendation provided by the credit risk manager regarding the management adjustment needed, if any, for the allowance.

Risk Description	Control Activity
<p>Unauthorized or undetected changes are made to data, files, or models.</p> <p><i>[accuracy and valuation]</i></p>	<p>On an as-needed basis, the credit allowance team processes change requests reviewed for approval via the corporate credit change management tool. Change requests, if approved, are tested prior to implementation. The corporate credit change management tool also enforces segregation of duties.</p> <p><i>Note: Evidence is captured within the corporate credit change management tool.</i></p> <p>Quarterly, the credit risk manager reviews access listings and submits system requests for prompt removal or revision of individuals with inappropriate access to respective shared drives and/or models. The credit risk manager follows up with the IT group to confirm that the removal and/or modification was processed.</p>
<p>Calculation(s)/model(s) do not reflect the company's best estimate of expected credit losses considering available internal and external data not captured by the model.</p> <p><i>[valuation]</i></p>	<p>On a quarterly basis, the credit risk analyst performs a back test of the relevant calculation(s)/model(s) and reviews the results of the prior quarter forecast with actual results. Variances in excess of [a predefined threshold determined using quantitative and qualitative considerations] of the forecasted results are investigated to understand the drivers of differences inclusive of the inputs considered as part of the calculation(s)/model(s) (economic variables and/or internal data). In connection with the variance review results, the credit risk analyst determines whether any adjustments/refinements should be made to the expected credit losses forecast calculation(s)/model(s).</p> <p>Management within the function responsible for forecasting and recommended adjustments (or no adjustments) to the current quarter calculation(s)/model(s) reviews the analysis prior to utilization of the current quarter calculations(s)/model(s) for the estimate of expected credit losses.</p>

Documentation around Forecast Data Utilized

The extent of the analysis performed and related documentation will typically be influenced by the objectivity of the inputs. While the extent of documentation needed to provide management's judgment and rationale regarding the selection and application of each data set may be similar, the extent of documentation necessary to demonstrate the reliability and usefulness of the data sets may differ. Demonstrating the reliability of historical losses, although equally important, may be a comparatively more straightforward exercise due to the ability to clearly, objectively trace the source and validity of the data, whereas a demonstration of a data set used for future loan delinquency rates will likely require additional qualitative documentation and analysis of the merits and reasonableness of subjective judgments and limitations inherent in developing such a data set. In this regard, it is important to clearly show how management's judgments impact the estimation of credit loss.

Risk and Controls to Consider Around Disclosures

While many of the disclosures required by CECL are similar to what has been required in the past for loans and held-to-maturity debt securities when considering the allowance, policy for write-offs, past due status, or nonaccrual status, new requirements have been set regarding the level of detail required for disclosure (e.g., vintage analysis) and additional disclosure around collateral dependent financial assets and credit quality indicators, among other details. As a result, it will be important to consider how the risks have changed or whether new risks arise as a result of the disclosure requirement changes. Below are examples of risks and controls to consider when developing CECL disclosures:

Risk Description	Control Activity
<p>The level of activity disclosed during the period is insufficient and/or not meaningful to understand the activity in the allowance for credit losses for the period.</p> <p><i>[presentation and disclosure]</i></p>	<p>On a quarterly basis, the credit risk manager and/or accounting manager reviews the company's rollforward of the allowance for credit loss disclosure. Checklists are utilized to determine whether changes in the portfolio segment or the detail included within the rollforward warrant departures from disclosure decisions made upon implementation or in prior quarters. To the extent that issues are identified during the review, a follow-up is conducted, and resolution occurs prior to finalization of the disclosure.</p> <p>The SEC reporting manager reviews activity disclosed within the rollforward to confirm that information ties and/or reconciles to related information included within the respective SEC filing. Furthermore, the SEC reporting manager performs a qualitative review to verify that the activity disclosed is meaningful and appropriate to understand the allowance for credit loss activity for the period when considering other relevant information and drivers.</p>
<p>The level of detail disclosed is insufficient and/or not meaningful to understand the extent of past-due financial assets or the credit risk and interest income recognized on financial assets on nonaccrual status.</p> <p><i>[presentation and disclosure]</i></p>	<p>On a quarterly basis, the credit risk manager and/or accounting manager reviews the disclosure required for the financial assets in past-due status and nonaccrual status. Checklists are utilized to determine whether changes need to be made from prior disclosures related to the classes of financing receivables, aging analysis for past-due financial assets, and the understanding of credit risk and interest income recognized on financial assets with a nonaccrual status.</p> <p>The SEC reporting manager reviews of activity disclosed for past-due and nonaccrual financial assets to verify that information ties and/or reconciles to related information included within the respective SEC filing. Furthermore, the SEC reporting manager performs a qualitative review of the disclosure to verify that the level of detail disclosed is appropriate to understand the extent of past-due financial assets or the credit risk and interest income recognized on financial assets on nonaccrual status when considering other relevant information and drivers.</p>

Risk Description	Control Activity
<p>Financial statement users cannot understand the circumstances that caused changes to the allowance for credit losses and affected credit loss expense (or reversal) reported for the period.</p> <p><i>[presentation and disclosure]</i></p>	<p>On a quarterly basis, the credit risk manager, accounting policy manager, and/or SEC reporting manager reviews the allowance for credit loss disclosure to verify that they adequately allow financial statement users to understand by portfolio segment the circumstances that caused changes in the estimate of the expected credit losses recognized during the period as an expense (or reversal).</p> <p>The review involves scrutinizing the following disclosure (or lack of disclosure considering materiality) relevant to each portfolio segment:</p> <ul style="list-style-type: none"> • Changes in factors that influenced management's current estimate of expected credit losses and the corresponding reasons; • Identification of changes to the accounting policies and methodology and a rationale for those changes and the quantitative impact; • If applicable, reasons for significant changes in the amount of write-offs; • Length of the Reasonable and Supportable Forecast period; • A reversion method applied for periods beyond the reasonable, supportable forecast period; • Amount of any significant purchases of financial assets during each reporting period; and • Amount of any significant sales of financial assets or reclassifications to held for sale during each reporting period.
<p>Financial statement users cannot understand the method and information used for developing management's estimate of expected credit losses by portfolio segment.</p> <p><i>[presentation and disclosure]</i></p>	<p>On a quarterly basis, the credit risk manager, accounting policy manager, and/or SEC reporting manager reviews the allowance for credit loss disclosure to verify that they adequately allow financial statement users to understand the management's method for developing its allowance for credit losses and the information management used in developing its current estimate of expected credit losses by portfolio segment.</p> <p>The review involves scrutinizing disclosure included for each portfolio segment around the following:</p> <ul style="list-style-type: none"> • Description of how expected loss estimates are developed; • Accounting policies and methodology to estimate the allowance for credit losses as well as a discussion of factors that influenced management's current estimate of expected credit losses, including past events, current conditions, and reasonable, supportable forecasts about the future and reversion methods; and • Discussion of risk characteristics.
<p>The credit quality information provided does not allow a user to understand how management monitors the credit quality of its financial assets and assess the quantitative and qualitative risks arising from the credit quality of its financial assets.</p> <p><i>[presentation and disclosure]</i></p>	<p>On a quarterly basis, the credit risk manager, accounting policy manager, and/or SEC reporting manager reviews the respective credit quality disclosures to scrutinize the understandability of financial assets' credit quality by providing the following quantitative and qualitative disclosure by class of financing receivable:</p> <ul style="list-style-type: none"> • Descriptions of the credit quality indicator(s); <p><i>Note: If internal risk ratings (or other internal information) are provided, confirm that qualitative information is provided on how the ratings relate to the likelihood of loss</i></p> <ul style="list-style-type: none"> • Amortized cost basis disclosed by credit quality indicator(s) and by year of origination (i.e., vintage year); and • The date or range of dates in which the information was last updated for the respective credit quality indicator.

Prior to implementation of CECL, U.S. public companies are required to disclose the impact of the adoption in their quarterly and annual financial statements. Although many companies may wait to provide impact disclosures until closer to the implementation date, it is prudent to expect that disclosures will evolve over time as companies better understand how the standard will impact their financial statements. As such, the risks and controls identified above should be leveraged to provide a reasonable assurance that appropriate consideration is given to disclosures that may be appropriate prior to adoption of the standard. The following items should be considered when developing pre-adoption disclosures:

- Known changes to the accounting policies;
- Status of Implementation;
- Effect of the adoption impact on the balance sheet and income statement and regulatory capital ratios if it can be reasonably estimated (or disclosing that it cannot be reasonably estimated); and
- Effect of the new footnote disclosures (inclusive of qualitative disclosures).

■ Appendix A (Implementation Oversight Summary Example Outline)

Management oversight performed around the adoption of CECL

- The senior management oversight mechanism established to provide reasonable assurance that the CECL adoption was thoughtful and that it included appropriate internal governance practices (e.g., establishment of a CECL council consisting of senior management members that meets periodically to discuss issues, key decisions, and progress around adoption)
- Involvement of key players within the CECL transition steering committee/task force (e.g., corporate controller, credit officer, etc.)
- Establishment of roles and responsibilities within the organization with respect to CECL adoption and implementation (i.e., parties that are responsible, accountable, consulted, and informed)

Outline of key steps in the process to estimate CECL

- *Determining the unit of account*
The standard requires a reporting entity to use a “pooled” approach to estimate expected credit losses for financial assets with similar risk characteristics. If a financial asset does not share similar risk characteristics with other financial assets held by the reporting entity, the allowance for credit losses should be determined on an individual basis.
- *Determining the contractual term of the financial asset and factoring in prepayments*
A reporting entity estimates the amount not expected to be collected over the contractual term of the financial instrument upon origination or acquisition of a financial asset or group of financial assets. The standard, depending on the method used to estimate expected credit losses, also requires a decision regarding how to consider prepayments as either a separate input in the method or whether prepayments may be embedded in the credit loss information.
- *Measurement of expected credit losses*
The standard requires reporting entities to consider internally and externally available information. It also requires reporting entities to consider historical information, current conditions, and reasonable, supportable forecasts. This section could be further broken down into i) inputs (e.g., historical information), ii) assumptions (e.g., current conditions & forecasts), iii) modeling techniques (e.g., DCF, non-DCF) and iv) consideration of qualitative adjustments (e.g., changes in unemployment rates)

Methodology development and validation

- **Financial assets measured at amortized cost** (consider separate sections for loans, held-to-maturity debt securities, net investment in leases, reinsurance and trade receivables, and off-balance sheet credit exposures)
 - » Determining the data on which to base the estimate and assessing the reliability and sufficiency
 - » Deciding how to segment products per the CECL standard (e.g., consideration of risk characteristics)
 - » Understanding the behavioral characteristics of the segments to determine the best loss estimation approach (e.g., roll rate, loss rate, aging schedule, vintage analysis, probability of default/loss given default, DCF vs. other approaches)
 - Interpretation of trial/dry runs of models/calculations
 - Decision regarding the approach selected and reasons why (including why alternatives were rejected)
 - Input received and considered from industry and regulators if relevant and/or factored into key decisions
 - Decision around how loss rates are developed
 - » Key assumptions significant to the accounting estimate representing management’s judgment of the circumstances and events
 - » Decision around prepayments being included as a separate input in the method or embedded in the credit loss information
 - » Circumstances that would result in adjustments to the estimation process

- » Assessment of whether the methodology conflicts or is inconsistent with what is calculated/performed for other regulatory reporting, liquidity risk management, etc.; if differences exist, explanation of why differences are appropriate
- **Available-for-sale debt securities (when fair value < amortized cost)**
 - » Determining the data on which to base the estimate (and assessing the reliability and sufficiency)
 - » Management's process followed to develop the fair value estimate using DCF
 - » Key assumptions significant to the accounting estimate representing management's judgment of the circumstances and events
 - » Circumstances that would result in adjustments to the estimation process

Development or modification of accounting policies and corresponding procedures

- Definition of key terms/concepts (reasonably expected troubled debt restructurings, reversion period, purchased with credit deterioration, etc.)
- Interpretation and decision papers that eventually develop into position papers documenting implementation decisions

Key considerations for the internal control framework

- Processes and controls to satisfy Staff Accounting Bulletin (SAB) 102 requirements
- Independent periodic review of the methodology
- Controls in place over data used to formulate the assumption and evaluate its reasonableness
- Assessment of assumptions and/or forecasts internally consistent when the same or similar assumption is used for other accounting estimates and risk or other management analysis
- Controls over the reversion period methods
- Periodic review of assumptions to provide reasonable assurance that they are supported by historical data or industry research
- Controls over the reporting and disclosure process

Management interaction with those charged with governance

- Presentations provided to board of directors' governance committees (e.g., audit or credit committee of the board) regarding updates around CECL adoption

Appendix B (Insights around Complex and Subjective Management Review Controls: ICFR Documentation and Evidence Considerations)

Management review controls (MRCs) are prevalent within the adoption of CECL given the involvement of significant judgment and/or expertise from the control performers. Complex and subjective MRCs are inherently difficult to document given that they are likely to (1) require MRC performers and reviewers to have substantial subject matter expertise, (2) have aspects that are not static from period to period, (3) address risks in combination with other controls, and (4) have dependencies on data from other sources and not data they personally create or have direct control over.

Given the inherent judgment involved with how MRCs are documented and evidenced, the below actions to consider were developed as a tool to utilize when working with auditors/regulators regarding the use of complex and subjective MRCs.

Example Control Activity

The Economic Scenario Committee (ESAC), which is comprised of the chief risk officer, chief financial officer, treasurer, operational risk officer, chief credit officer, and corporate controller, meets quarterly to approve a range of economic scenarios to reflect management's best judgment on a probable range of outcomes and relevant data that form the basis of forecasting and business planning.

The ESAC would consider sensitivity testing, stress testing, and/or probability weighting to develop its best judgment. The output of the review will be captured in meeting minutes and a memo and will include criteria used for investigation.

ACTIONS TO CONSIDER	ELABORATION OF POTENTIAL ACTION
<p>1. Document how the selected control(s) address the risk(s).</p> <p>Example Risk: Economic variable assumption is not relevant for use in the allowance for expected credit losses calculation.</p>	<p><i>Taking a step back and considering whether the right control(s) have been selected to address the risk(s).</i></p> <p>Perform an independent credible challenge of whether the control is designed to address each risk identified by considering the following:</p> <ul style="list-style-type: none"> • Are additional controls necessary to address the risks (i.e., does the MRC work in combination with other controls)? • Does the control address multiple risks, and, if so, has consideration been given and documented as to how the control addresses each risk? <p><i>To address the risk, controls CECL-01 and CECL-02 have been identified in this example to address this noted risk. Take a step back and consider whether these controls are the right controls to adequately address this risk. If not, consider identifying additional controls.</i></p>
<p>2. Document the control description, including the activities/steps performed by the control performer.</p>	<p><i>Obtaining a thorough understanding of the control description and ensuring that key components of the control are specified.</i></p> <p>Review the control description and consider the following to determine whether a well-documented understanding has been captured by:</p> <ul style="list-style-type: none"> • Identifying all significant inputs (i.e., reports or information) and their source and related controls. • Consider the activities/steps performed by the control performer, including for each key assumption, such as: <ul style="list-style-type: none"> » Are the approach and calculations made in the determination of the estimate appropriate? » How can I obtain reasonable assurance that the approach and computations comply with the relevant GAAP requirements? • Ensuring approval is evidenced and capturing the output of the control (i.e., memo or report).

ACTIONS TO CONSIDER

ELABORATION OF POTENTIAL ACTION

To illustrate a thorough description of the ESAC example control above, such detail would include identifying and documenting the key activities/steps executed by the ESAC committee members (i.e., chief risk officer, chief credit officer, chief financial officer, treasurer, chief operational risk officer, and corporate controller). Such activities/steps may include:

- Confirming that the inputs are correct as of the quarter's end and that effective complementary controls are in place to support the completeness and accuracy of the information reviewed;
- Reviewing the economic scenarios and related forecasts to be utilized within the CECL estimation process along with the summarized key assumptions that drove those scenarios;
- Evaluating the fluctuations between prior- and current-period economic scenarios to confirm that no indicators of management bias are present;
- Determining whether follow-up is necessary with the chief economist to make corrections and/or provide additional analysis; if follow-up is necessary, the ESAC package is resubmitted to the ESAC committee members for approval showing the changes made in response to the initial review;
- ESAC committee members reviewing a retrospective analysis of the key assumptions used in the economic scenarios and forecasts and following up as necessary on any outliers; and
- Concluding the appropriateness of management's use of economic scenarios to be used within the CECL calculation and ensuring it complies with CECL methodology.

3. Identify and document the significant inputs to the control and determine whether those inputs and supporting controls have been assessed and documented.

Identifying significant inputs as well as controls that address the accuracy and completeness of such inputs.

Understand the source(s) of all significant inputs and identify and document controls that address the reliability (i.e., completeness and accuracy) of the report or information used in the control.

In the ESAC example control above, the significant input is the ESAC package, which is comprised of several different inputs. To illustrate the identification and documentation of these significant inputs, the ESAC package may include:

- *Forecast Tracking / Trending* – a comparison of actuals versus previous forecast and the discussion of trends which drove differences;
- *Downside/Middle/Upside Scenarios* – explanation of assumptions which drive various scenarios and the resulting modeled forecasts of economic variables; and
- *Scenario Comparison Quarter over Quarter* – comparison of current forecast to previous forecast and the discussion of what drove differences.

In addition, a company may identify controls over the significant inputs to provide reasonable assurance around the completeness and accuracy, including:

- Verifying that the user-entered parameters of the inputs (i.e., reports) pertain to the period under review; and
- Reviewing the formulas and mathematical accuracy of the supporting information.

ACTIONS TO CONSIDER	ELABORATION OF POTENTIAL ACTION
<p>4. Document the criteria and level of investigation, including any follow-up performed by the control performer.</p>	<p><i>Verifying that the investigation criteria and level of precision of the MRC has been considered.</i></p> <p>Determine whether the following considerations will be addressed, including any thresholds applied in the review:</p> <ul style="list-style-type: none"> • What is the control performer looking for? • How does the control performer determine those items to investigate, and what is the process to resolve? • Is the precision (i.e., the level of investigation and follow-up) sufficient to address the risk(s)?
<p><i>To illustrate the ESAC example control above, documentation of the investigation criteria and any follow-up performed by the ESAC committee members (i.e., chief risk officer, chief credit officer, chief financial officer, treasurer, chief operational risk officer, and corporate controller) may include:</i></p> <ul style="list-style-type: none"> • Review of the significant inputs and assumptions for the quarter, by the ESAC committee members, against their set of defined criteria and/or thresholds to ensure the appropriate level of precision of the estimate. The ESAC committee challenges, where appropriate, the inputs or assumptions during the committee meeting; • If variances are noted above the set of defined criteria and/or thresholds, determining whether follow-up is necessary with the chief economist to make corrections and/or provide additional analysis. If so, the ESAC package is then resubmitted to the ESAC members for approval evidencing the changes made in response to the initial review, prior to being included within the CECL calculation; and • Ensuring documentation of the review and follow-up is adequately captured within the meeting minutes and/or the memo, including the set of defined criteria and/or thresholds, specifically noting those items challenged by the ESAC committee members. 	
<p>5. Document the consideration of contradictory evidence, when appropriate.</p>	<p><i>Considering contradictory evidence within the control description.</i></p> <p>Confirm that the control performer has considered contradictory evidence when appropriate, and if so, specifically indicating what was reviewed:</p> <ul style="list-style-type: none"> • What procedures were performed to identify contradictory evidence? • Does the control address the risk of individual bias? • Were other viewpoints within the company contemplated? <p>When appropriate, consider adding a specific step (e.g., common examples or sources of contradictory information) to the control description.</p>

To illustrate the ESAC example control above, documentation of the consideration of contradictory evidence may include:

- ESAC committee reviewing and considering potential contradictory evidence, including alternative economic scenarios/ forecasts and alternative key assumptions that drive the economic scenarios; and
- Ensuring documentation that the consideration of contradictory evidence is adequately captured within the meeting minutes and/or the memo, which is not specifically noted in the example control description above.

ACTIONS TO CONSIDER	ELABORATION OF POTENTIAL ACTION
<p>6. Document and maintain evidence to support each activity/step of the control.</p>	<p><i>Has sufficient evidence been maintained to support that the control was designed and operating effectively?</i></p> <p>For each MRC, evaluate the evidence (e.g., meeting minutes, memos/analyses, journal entries) and how it is captured and documented for each activity/step and make sure it supports the control performers' assessment.</p> <p>It is good practice to maintain evidence and support for each activity/step as specified in the control description.</p>
<p><i>To illustrate the ESAC example control above, maintaining evidence to support the key activities/steps executed by the ESAC committee members may include:</i></p> <ul style="list-style-type: none"> • <i>The approved ESAC package, including all significant inputs; and</i> • <i>Final meeting minutes and/or memos documenting the questions raised and follow-up performed for each activity/step and the consideration of actions 4 and 5 above.</i> 	

The other tool to utilize when dealing with the development and documentation of complex and judgmental MRC's is communication. *Early, frequent communication with your auditor and/or regulator* is the key to being aligned on expectations. The *ICFR: Insights, Issues, and Practices* examples for CECL are not meant to be an all-encompassing measure to ensure that regulatory and auditor expectations are met in a consistent fashion. Rather, this document's objective is to be thought provoking and insightful for other preparers as they think about their risk and controls associated with adopting CECL.

■ Appendix C (ICFR Insights for Nonfinancial Institutions)

Background

The new guidance (sometimes referred to as the CECL model) may not have a significant impact for some companies. That outcome is more likely if the company is a nonfinancial institution (i.e., a company that primarily focuses on something other than lending-based activities). Even if the impacts are expected to be limited, certain items in the new standard and related ICFR considerations that may be insightful for a company's implementation should be highlighted.

First, a reminder of the effective date and transition, as nonfinancial institutions may not be tracking this standard closely yet due to leasing or revenue implementations; the effective date and transition are as follows:

- For public business entities (PBEs), ASU 2016-13 (i.e., the new standard) will be effective for annual periods beginning after December 15, 2019, and interim periods therein (e.g., January 1, 2020, for a calendar-based filer).
- For non-issuer PBEs, the standard will be effective for annual periods beginning after December 15, 2020, and for interim periods therein.³ Early adoption is permitted for annual periods beginning after December 15, 2018.
- The transition guidance requires companies to record a cumulative-effect adjustment to retained earnings on the first effective date and provide new disclosures in the subsequent interim and annual filings. This appendix is meant to provide a starting point to leverage in relation to the new standard, processes, and ICFR for companies that are not financial institutions.

³ For all other entities, it is effective for annual periods beginning after December 15, 2020, and interim periods within annual periods beginning after December 15, 2021. However, as of the date of this publication, the FASB proposed changing the effective date for non-public business entities to be after December 15, 2021, including interim periods within those fiscal years.

Expected Changes to Nonfinancial Institutions

Before examining ICFR considerations, it may be helpful to point out a few areas in which many nonfinancial institutions are expected to be impacted. At an introductory level, the new standard replaces the current "incurred" model for recognizing losses in allowance measurements for certain financial assets, which requires recognition when it is probable that a loss has been incurred. The CECL model replaces "incurred" with a new threshold of "expected" losses. It is generally anticipated that the change in threshold will cause losses to be recognized sooner compared to the current guidance. Practically, the application of the CECL model means preparers will have to estimate credit losses expected over the contractual term of the financial assets based on available information relevant to assessing the collectability of cash flows (i.e., internal information, external information, or a combination of both relating to past events, current conditions, and reasonable, supportable forecasts), which is likely a new concept. The estimate of expected credit losses is re-measured at each reporting date and updated with new forecast information. The CECL model, which applies to most financial assets not measured at fair value through net income, will apply to most nonfinancial institutions in some way because scoping is based on the instruments held and not by the company's main operations. For instance, common financial assets impacted will include trade receivables, contract assets (from ASC 606), financing receivables, held-to-maturity debt securities, and reinsurance receivables. The new standard also applies to available-for-sale debt securities in which a comparison between the fair value of the debt security and the amortized cost basis is performed to determine if the fair value is below cost and what amount, if any, is related to credit losses that need to be captured within the allowance for credit losses.

As mentioned, an important aspect of the CECL model is the inclusion of reasonable, supportable forecasts for the measurement of allowances. Companies may need to adjust their existing process for estimating credit losses on trade or financing receivables to incorporate some measure of anticipated economic performance. For example, an economic measure could be changes in bankruptcy rates in the sector in which the customer operates. In other situations, in which receivables have a mass market consumer base, a more general economic indicator, such as GDP or unemployment rates, may be useful. The use of an economic measure to forecast expected losses will require significant judgement to determine how changes in the economic measure result in adjustments to the allowance.

In addition to incorporating forecasts, the new standard may affect how one thinks about the identification of allowance amounts associated with specific receivables. The CECL model requires financial assets with similar risk characteristics to be pooled to determine the expected credit losses. Many nonfinancial institutions likely do this today, e.g., by using reserve matrices or aging buckets for their trade receivables. Given this requirement to measure expected losses over the contractual term of the asset, it could become rare that a receivable would be estimated as having a zero loss at any point over its contractual term. In some situations, the overall measurement of the allowance across a portfolio of receivables did not change significantly, but the disaggregation of the allowance may be different at the individual receivable level. Overall, the incorporation of forecasts is likely to be one of the most challenging aspects of the new standard, especially in situations in which nonfinancial institutions provide extended payment terms to customers.

Given the change in the guidance, calibrating changes in accounting policies, processes, and controls to reflect the new CECL model will be based on facts and circumstances. Nonfinancial institutions may have varying types and amounts of financial assets, which each could have unique exposures to credit losses. The significance of the new standard can cover a broad spectrum from one company to another, even within the same industry. For instance, a company may provide significant five-year long-term financing for consumer electronic sales. The company's direct competitor, however, may act as an agent connecting its customers to third-party banks for their financing needs; therefore, the company may only need to address short-term trade receivables in their evaluation. As such, the implementation effort will correspond to a materiality-based assessment of the potential impact.

Evaluating the Impact of CECL Adoption

One of the first steps for an impact assessment might be to plan a discussion with individuals close to the credit process, including operational personnel. For many nonfinancial institutions, this discussion would include those inside the organization responsible for assessing the creditworthiness of the company's main customer types. Many companies may have already had recent discussions like this during their adoption efforts around ASC 606, Revenue from Contracts with Customers. Under ASC 606, a company would need to evaluate contracts if it is probable that the entity would collect the consideration to which it is entitled for goods, services, and licenses transferred to the customer. While the "probable" assessment under ASC 606 evaluates customers' intent and ability to pay the consideration, it does not imply a risk-free receivable. Accordingly, the CECL model must still be applied to evaluate expected losses over the contractual term of a financial asset. Therefore, additional discussions may be helpful when assessing the potential impacts of the new standard.

Furthermore, discussions with those who set the credit policies or standards and assess the ongoing collection risk could be an effective way to determine if anyone is organically looking at forecasted information. If they are, it would be helpful to understand their rationale for using the data and their statistical sources. Since it is likely that most nonfinancial institutions do not have an economic committee or even a credit board (like a bank would have), even select uses of forecast information that occur may turn out to be a fluid dynamic use of the information. If so, this process may not currently be occurring in a controlled environment, nor would it be suitable to plug into the ICFR structure in the future without investment and buy-in outside the accounting department. Regardless, the insights discovered may be valuable to understand how one would estimate expected losses under the CECL model, including what economic measures may be relevant for developing reasonable, supportable forecasts.

Regardless of the adoption outcome, the discussions could also function as part of the evidence for the one-time controls around the implementation effort. Companies sometimes struggle to find the right level of documentation around nonrecurring items, such as the adoption of new standards and related ICFR considerations. In certain cases, it might be appropriate to document conversations with subject-matter experts. In addition, if needed, this could offer an opportunity to refresh existing assumptions about the credit evaluation process, such as how financial assets

are pooled into groups with similar risk profiles. When dealing with standards requiring judgements and estimations, more focus should be placed on process and controls, so these discussions may be a helpful tool to explain the judgements made. Controls related to the adoption and implementation of the new standard may be as follows:

- The controller's office reviews the technical literature and evaluates the estimated impact of the new standard;
- The controller's office holds discussions with key operational and functional leaders to assess the impact of the new standard; and
- The controller's office prepares and reviews key memoranda documenting certain areas of significant judgement.

Depending on the nature of the nonfinancial institution's financial assets, discussions across the organization may prove valuable. For instance, companies with significant real estate leasing operations may want to meet with individuals in the sales/leasing department to understand the broader economic trends in the markets they serve. Ultimately, any discussions should be driven by the nature and types of financial instruments subject to the new CECL model.

Review of Process and Internal Controls

Measuring and Booking CECL

After reviewing the guidance and having certain discussions, a company may have an initial reaction regarding whether any changes are needed in the process of measuring and booking the allowance. Based on this outcome, potential new risks to financial reporting can be identified, especially for assertions around the inclusion of a forecast element in the measurement. At this point, it would make sense to evaluate the control structure surrounding financial assets and see how it fits with any new processes or risks identified.

Based on a company's initial evaluation and materiality conclusions, it may not be unusual for a nonfinancial institution to keep its existing control structure when adopting ASU 2016-13. The key is to evaluate how the existing control structure handles new processes and risks arising from application of the CECL model. For illustrative purposes, assume a nonfinancial institution has the following existing flow of processes for a trade receivable allowance with a single key control:

1. An accountant reviews aging reports from billing systems in anticipation of the period closing.
2. An allowance is measured and recorded per relevant accounting policies. *
3. Any allowance adjustments outside the policy are discussed with the credit and collections department.
4. The final allowance journal entries are prepared and then reviewed and approved by an accountant one level above the preparer.

** Assumes controls are in place over the update of accounting policies documented in a separate flow of processes*

While this may be a highly simplified illustration, the point is that the adoption of the new standard may not require a significant number of new or different key controls depending on how they are structured. In the illustration, process changes upon adoption, such as the inclusion of a forecast in the measurement of the trade receivables' allowance, might not change the key control, which is that the allowance journal entry is reviewed and approved. However, the design of the control will likely need to change. For instance, if a forecast element is included in the measurement of the trade receivable allowance at adoption, the design change could be handled by updating documentation in an accounting policy as referenced in step two. In this case, the accounting policy would be the vehicle to describe the process steps used to measure an allowance on financial assets, including the use of forecasts.

To continue the example, a key step of the accountant's review may be to review the calculated allowance against the relevant accounting policy, including the key inputs into the calculation (e.g., aging buckets, historical percentages, other factors). Upon adoption of the CECL model, the review of these key inputs for accuracy and completeness would also include any forecasts or economic measures to adjust those historical percentages. Therefore, even if there are no new or modified controls, the design of the existing controls must change to accommodate the new processes, and housing these changes in an accounting policy is one way to address the change. Therefore, including the key inputs and assumptions in an accounting policy is one way to provide reasonable assurance that the review performed in the key control appropriately considers the new processes and concepts in the CECL model.

This approach will not be suitable for all nonfinancial institutions. Some companies with material impacts may find that they will have to adjust their accounting policies, processes, controls and documentation and consider whether they are relying on IT systems or changing IT systems. There is no one-size-fits-all approach, and if the impacts are more significant, the main body of this document may have more appropriate insights into the ICFR considerations.

Disclosures for CECL

Nonfinancial institutions will also have to contend with the new disclosure requirements in ASU 2016-13. The disclosure requirements could lead to new narrative explanations of methods used to estimate expected credit losses and how those methods relate to the allowances recorded. In terms of quantitative disclosure changes, preparers should evaluate the new requirements for entities to provide a rollforward of allowances recorded from period to period, which may require new process and controls.

If the company's disclosures will change, there is a risk that the incremental disclosures may not be considered accurate or complete. As with other controls, the design of existing disclosure-related controls could need to be adjusted for changes in the process in the area of expected credit loss estimations. If the evaluation of the new standard shows that its impact is significant, a company could implement new processes to capture the rollforward information necessary to complete the disclosure requirements. If these disclosures were not previously made under existing requirements, such as Regulation S-X, Rule 12-09, a company may need to evaluate the need for appropriate disclosure controls to affect this change. An appropriate control could read as follows:

- The credit collections department prepares a rollforward of the receivables allowance account, which the controllership department reviews for reasonableness.

As with every discussion on ICFR considerations, all companies will need to consider their own risk profiles to determine the appropriate level of control related to their respective processes and disclosures.

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