

Don't Run in CECLs:

Rise to the Challenge
of Impending Current Expected Credit Loss Requirements

ORACLE WHITE PAPER | MAY 2017





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Introduction

The banking industry is gearing up for what regulators have harrowingly referred to as the “biggest change ever to bank accounting”—otherwise known as the Current Expected Credit Loss (CECL) calculations.

The new requirements, which will take effect in 2020 for SEC registered banks, and 2021 for other institutions, will introduce fundamental changes in several areas, including:

- » How banks calculate and analyze allowance for loan and lease losses (ALLL);
- » The granularity of data required, especially around qualitative factors and performance metrics; and
- » The complexity and costs around preparing and auditing ALLL

Ultimately, CECL will have a direct and immediate impact on how banks manage their capital.

Financial institutions can begin early adoption as soon as 2019, but many are still working to understand the requirements—from a data, process, and infrastructure perspective—that will be needed in short order.

So where do financial institutions go from here? What challenges—and solutions—lie ahead, and why is tight alignment between risk and finance more important than ever?

A New Standard

It has been nearly 40 years since the current credit loss accounting standards—based on incurred loss—were introduced. The legacy model looks backward, assuming that one or more identifiable factors led to a specific loan impairment. As such, credit loss standards today are largely calculated using historic annual charge-off rates.

CECL, in turn, looks to the future, and leverages an expected loss model. It is not based on annual loss rates but on life-of-loan or life-of-portfolio loss rates. In short, the fundamental difference between the two approaches is that, while incurred loss accounting reflects *current losses* in a portfolio, CECL identifies *current risk*—encompassing both current and future credit losses.

CECL, without question, will introduce new complexity and costs on several fronts. In most cases, CECL allowances will be higher than ALLL levels—which will intensify capital and liquidity constraints. In addition, banks will require more granular data and expanded analytics capabilities and face an increased burden of defending calculation models under CECL. Financial institutions also must further integrate risk and finance operations so that data from capital management, budgets, and asset and liability management, to name just a few sources, are available for CECL calculations.

Adding even greater complexity, CECL does not prescribe a single method for estimating credit losses. Instead, banks are free to leverage various measurement approaches to determine impairment allowance. Regardless, these models must include information about past events, current conditions, and supportable forecasts about future economic events and conditions. The fact that CECL does not mandate a specific calculation methodology introduces even greater ambiguity, risk, and uncertainty for banks as they face what is likely to be a higher bar for defending their models and data to regulators.

With CECL, as with other regulatory requirements that impact capital allocations, banks most proficient at accurately calculating and monitoring loss expectations are better prepared to optimize risk, pricing, and capital. In other words, they are in a better position to compete profitably. As such, the ability to fully integrate risk and finance data and operations has never been more important. While many institutions have embarked on this important journey, most remain in the early stages, placing them at a further disadvantage as CECL deadlines loom.

Will DFAST and CCAR Models Fit the Bill?

At first blush, it would appear that existing Dodd-Frank Act Stress Test (DFAST) and Comprehensive Capital Analysis and Review (CCAR) models might be a good foundation for CECL calculations. This is not inherently true, however, because “DFAST and CCAR are based on open books of business in which new loans are being made and existing loans paid off throughout the stress testing period. In contrast, CECL provides an estimate of one specific set of loans at a specific date. Therefore, loss forecasting methods maintained by some banks for DFAST and CCAR purposes may apply annualized loss assumptions used today instead of life of loan (LoL) assumptions required for CECL.”¹

Other banks might be tempted to use their current processes for forward-looking credit losses. This model, too, is likely to fall short under CECL for a few reasons. First, historical data used to estimate incurred loss, is almost always calculated based on annual charge off rates. CECL, in comparison—requires life-of-instrument or life-of-portfolio calculations. “Most banks do not retain the life of loan credit loss data needed. So, these banks will need to both request historical data from the core loan system provider and implement changes to their processes in order

¹ “FASB’s Current Expected Credit Loss Model for Credit Loss Accounting (CECL): Background and FAQ’s for Bankers,” American Bankers Association, June 2016, p. 11.

to collect it going forward.”² This requirement underscores the importance of greater alignment and transparency between risk and finance.

Further, banks will need to change the way that they apply and measure adjustments to historical experience related to qualitative factors, known as Q factors. These internal and external factors can include variables as diverse as changes in an organization’s lending policies, staff turnover, developments in the international business and political climate, and changes in collateral value. (See Figure 1.)

COMMON Q FACTORS	
Internal Changes	
Lending policies and procedures, including modifications to underwriting standards and charge off protocol	Volume and severity of past due loans and other compromised loans
Level of credit concentrations	Quality of loan review process
Nature and volume of an institution’s portfolio, including loans	Experience level of personnel involved in lending management
External Changes	
Economic and business developments at international, national, and local levels	Variability in the value of collateral
New legal and regulatory requirements	

Figure 1

Traditionally, Q factors have been applied to adjust historical loss rates for “the difference between conditions that existed over the period that historical credit loss rates are accumulated during the process up to the reporting date. With CECL, no longer does that time period stop at the measurement date, but it continues to the end of the contractual term of the loans in the portfolio.”³

As such, moving forward, Q factor adjustments will, in many cases, have a much greater impact on capital than they currently do due to the longer-term forecasts required under CECL. Therefore, even moderate changes to Q factors could mean the difference between a profit or loss for an institution.

The application of Q factors is also under increased scrutiny. The Federal Reserve has recommended that banks review correlations of credit losses to historical data, and regulators are taking a much closer look at how institutions are calculating Q factors and leveraging them in ALLL models.

² “FASB’s Current Expected Credit Loss Model for Credit Loss Accounting (CECL): Background and FAQ’s for Bankers,” American Bankers Association, June 2016, p. 11.

³ Ibid.

So, What's a Bank to Do?

Flexibility is going to be key as banks prepare for CECL. For example, a single model will not necessarily work best for all financial instruments. Some models might be better applied to commercial portfolios versus consumer portfolios. In addition, risk factors will continue to evolve over time. As such, financial institutions must be equipped to accommodate and defend multiple models and modify them as conditions require.

Banks also should be prepared to go deep. Granular data—and the ability to analyze and act on it—have never been more critical. Under CECL, institutions will have to match data over time periods, conditions, and products that were active during comparable points in an economic cycle or issued under comparable underwriting standards. The need to justify historical data based on a vintage basis will require banks to break down and analyze a portfolio and its individual loans by issuance year. Consider a five-year loan portfolio. Under CECL, institutions are likely to require ALLL estimates for each vintage year, as opposed to a single calculation for the entire portfolio. Additional sub-calculations will come into play as banks must take into account that loans perform differently at various points in their lifecycle. Complexity and data requirements will increase significantly under these scenarios.

In addition, banks will need accurate and up-to-date data on prepayments, average life of a portfolio, as well as write offs at certain points in a loan lifecycle. Prepayments, in particular, will introduce new challenges as they must be factored into the life of the loan. Banks, therefore, will now have to integrate the timing of anticipated charge offs with prepayments. In addition, asset liability management (ALM) systems used to estimate portfolio lifecycles may become subject to greater scrutiny and audits as loan life will become fundamental to ALLL.

Changes Ahead

CECL will drive systemic changes across three levels: data, models, and processes.

Data, Data, What Kind of Data?

It is safe to say that banks will require access to new types of data and from longer periods than before for CECL calculation. Organizations will experience several significant changes.

The first is life of loan, which is the fundamental difference between CECL and incurred loss, as discussed previously. Most organizations do not capture origination data, which will be vital in CECL calculations. They also will need to be able to predict accurately the life of each loan, accounting for economic conditions and demographic factors. In other words, life of loan becomes a new risk factor.

DATA CONSIDERATIONS



- Life of loan
- Significant overhaul in disclosures
- Fair value of collateral
- Credit metrics

Second, banks should be prepared for significant overhaul in disclosures. “Under the new accounting standard, disclosures of credit quality indicators of financing receivables and net investment in leases, such as loan-to-value ratios, credit scores, and risk ratings, need to be disaggregated by vintage (i.e., year of origination) to provide users of financial statements greater transparency regarding the credit quality trends within the portfolio from period to period. This information can be used to better understand and evaluate management’s prior and current estimates

of credit losses.”⁴ Banks will have to provide credit quality indicators by vintage for a minimum of five annual reporting periods.

In addition, unlike previously, banks can consider Fair Value of collateral for CECL computations. Banks, therefore, no longer need to make provisions when the Fair Value of the collateral is higher than the loan value. To do this, however, banks must be able to accurately assess Fair Value at any given time in the life of loan.

Further, with regard to credit metrics, bankers, auditors, and investors must devise and rely on other types of metrics to evaluate the reasonableness of credit loss forecasts. Banks are likely to establish “tipping points” for credit metrics to determine levels at which changes in the expected loss will be necessary. Otherwise, banks may find themselves under the microscope defending claims of earnings management.

In the new world, banks may also want to consider tracking and maintaining individual cash flows for certain kinds of loans, such as corporate lines of credit, as they will need to forecast future draws. Without question, CECL will be a more data intensive process than banks have endured in the past. To ensure effective and efficient calculation, banks need to be able to capture this data and perform analysis from an enterprise level.

CECL will conclude the discussion and debate once and for all regarding the need to completely and immediately integrate risk and finance functions and data. In the new world order, risk and finance have to agree on and fully understand assumptions if they are to satisfy regulators and a higher level of scrutiny. It all starts with data, which, today, largely remains very fragmented—residing in various core and ancillary systems across a financial institution.

Modeling the Models

Under CECL, banks will have to maintain all credit loss provisioning by segments, including similar risk-based characteristics. This will require them to aggregate credit risk at the group level as opposed to at the individual instrument level, which, in turn, will drive the need for new models under CECL to assess risk-based characteristics for segments and sub-segments.

MODELS



- Segmentation: Similar risk-based characteristics
- Expected life
- Qualitative factor adjustments to historical loss data
- Forecast of future economic conditions - Quantitative impact

As noted previously, under CECL there is no single prescriptive model, leaving significant interpretation up to the banks themselves, and placing greater burden on their calculations, modeling, and data requirements. Understanding the expected lifespan of an instrument—and its behavior at various points in that lifecycle—are critical to accurately factoring CECL calculations to avoid unnecessary strain on capital allocation moving forward.

One of the most challenging aspects of CECL is going to be the application of qualitative factor adjustments to historical loss data. If a bank is using a probability of default (PD) model to assess its credit risk, it will need to consider the qualitative factor adjustments. If the model itself does not cover these factors, such as macroeconomic events, banks will need to update and justify the new factors, including how the bank will calculate this adjustment, how it is going to affect the calculation, and why it needs to be made.

⁴ “Frequently Asked Questions on the New Accounting Standard on Financial Instruments – Credit Losses,” Board of Governors of the Federal Reserve Systems, December 19, 2016.

This requirement dovetails with the need for more accurate assessment of current conditions and better forecasting of future economic conditions and the quantitative impact that these factors will have on credit risk. This should include development and documentation of expanded macroeconomic scenarios as well as the consistent application of them.

Time to Evolve

A financial institution can have the most accurate and integrated data and the best possible models, but without complementary processes in place to support CECL, success remains an open-ended question. Because loan originations under CECL will create immediate accounting events—such as loss expectations—banks must consider deploying additional detailed processes to ensure that factors underlying loss expectations are appropriately identified and tracked.

When determining new processes to support CECL, banks should first consider the complexity of their organizations. In short, the complexity and sophistication of the CECL analysis should be consistent with the complexity and sophistication of the bank itself. A model created for a Tier 1 bank, leveraging PD calculations, may not be relevant to a Tier 2 bank.

PROCESS CONSIDERATIONS



- Complexity of CECL vs complexity of bank
- Plans on CECL to be vetted
- Appraisals underlying loan to value
- Increased quarter end process
- Model risk management

CECL will add greater complexity to the quarter-end close process as additional risk factors and models will need to be taken into consideration, documented, and defended. Firms need to consider models as well as infrastructures that can standardize and automate the management of these processes.

Under impending CECL requirements, banks will need to adopt new models for the computation of expected life, qualitative factors, and PD models and more. Banks of all sizes need to ensure their models are relevant across ever-changing regulatory requirements and economic stress scenarios. Banks also can anticipate greater scrutiny in documenting and defending their model development, application, and management processes.

Getting Started

There is significant work ahead for institutions in their quest to ensure timely CECL compliance. The image above (See Figure 2) provides a broad-based roadmap with major milestones for the work ahead, from understanding requirements to beginning to evaluate vendors, ultimately implementing new models, processes, and technologies, and finally putting the new standard into action.

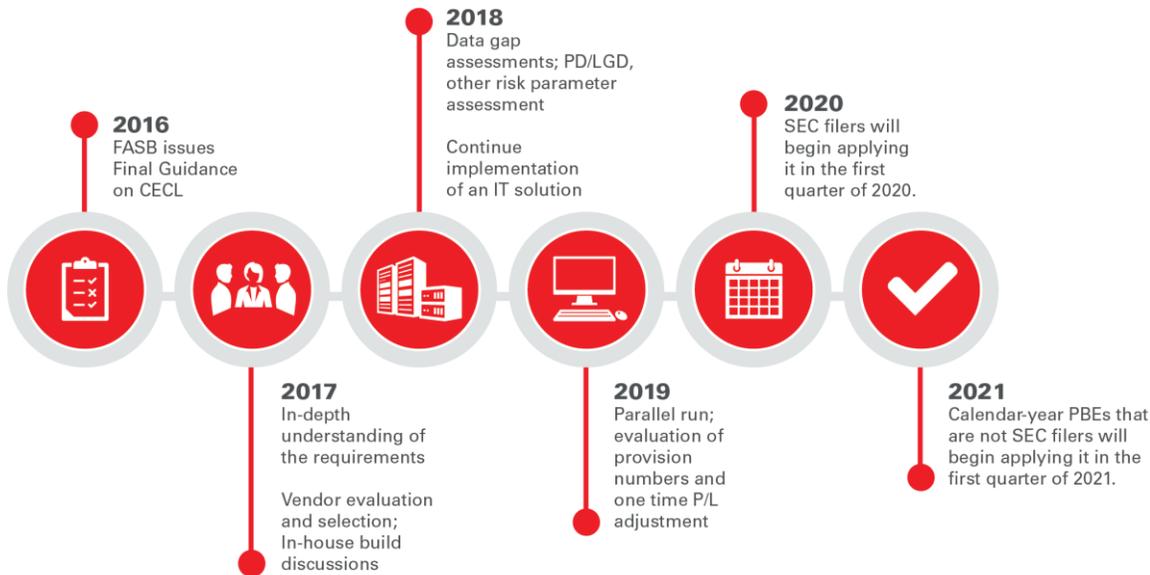


Figure 2

Time to Invest Wisely

The new CECL calculation method will have far-reaching implications for financial institutions and their credit modeling processes and controls, financial and regulatory reporting methodologies, and governance and risk management infrastructure.

Now is a strategic time for institutions to assess where they stand on the journey to align and unite risk and finance and what types of processes and IT investment they require to achieve this goal and advance their CECL readiness.

These considerations should include:

- How effectively are we coordinating and sharing information between critical stakeholders, including finance, risk, and governance teams?
- Have we achieved a single source of data as the foundation for reporting across finance and risk, including US GAAP, IFRS 9, BCBS 239, CCAR, Basel, DFAST, and internal reports to name just a few?

Broader considerations include the flexibility and robustness of the data foundation and analytical applications supporting an organization's governance, risk, and finance operations. When assessing current environments and assessing future requirements, it is important to consider the following:

- » Can we deliver the level of granularity required, including vintage analysis as well as separation of other loan characteristics needed to model probability of default (PD) and loss?

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- » Can we support multiple compute intensive methods for CECL, including:
 - » Roll rate
 - » Net Loss rate
 - » Cash flow based methods using cumulative PD adjusted for future forecast
 - » Vintage Analysis
 - » Exposure at default based methods
 - » Hazard rate
 - » Single-rate survival models
 - » Provision Rate methods
 - » Are we prepared to adequately capture, consistently apply, and provide auditing transparency into qualitative factors?
 - » Does the solution we are considering provide prebuilt models for PD compute and life of loan estimation that we can leverage immediately and adapt over time?
 - » Do we have a single environment for creating and managing models to meet requirements for both standard and proprietary models?
 - » Can we rapidly and accurately calculate fair valuations for available for sale (AFS) debt securities?
 - » Does our current environment support hedge accounting as well as enablement of accounting events?
 - » Do we have a unified data governance environment that facilitates compliance with continually changing regulatory requirements?
 - » Can we deliver the extensive transparency, traceability, and auditability that regulators increasingly require for CECL and other mandates?

Oracle's Approach

Oracle Financial Services Analytical Applications (OFSAA) solutions are uniquely positioned to support banks on their journey to CECL compliance. Oracle's CECL solution provides extensive stress testing and modeling capabilities integrated seamlessly with:

- » Oracle Financial Services Asset Liability Management application to generate life of loan cash flows based on prepayment behavior models
- » Oracle Financial Services Loan Loss Forecasting and Provisioning to determine changes to credit risk, compute allowance and provisions, and forecast credit closes across a portfolio
- » Oracle Financial Services Hedge Management and IFRS Valuations to compute the fair value of financial instruments and manage effective hedge relationships
- » Oracle Financial Services Enterprise Modeling to apply scenarios across multiple risk categories
- » Oracle Financial Services Regulatory Reporting Solution to automate the final mile of regulatory reporting

Extending Oracle's value proposition to CECL compliance, OFSAA empowers financial services organizations to:

- » Facilitate closer alignment and integration between risk and finance
- » Reduce risk related to penalties and potential losses
- » Automate and simplify compliance
- » Eliminate manual processes and cut labor costs associated with manual processes
- » Leverage required risk and compliance investment to drive new growth (top and bottom-line)
- » Actively incorporate risk into decision making

- » Achieve a consistent view of performance
- » Promote transparent risk management culture
- » Deliver actionable customer, business line, and profitability insights
- » Provide pervasive intelligence

OFSAA provides the industry's broadest and deepest application set to deliver unprecedented insight. Its application portfolio spans the four core risk and performance domains:



In addition, OFSAA includes applications at the intersection points of these core areas, such as:

- » Risk Management and Performance Management—IFRS9/13; Loss Forecasting; Risk Adjusted Performance
- » Risk Management, Performance Management, and Customer Insight—Pricing Management and Customer Profitability
- » Customer Insight and Governance and Compliance—Know Your Customer; FATCA
- » Risk Management, Performance Management, and Governance and Compliance—Stress Testing
- » Intersection of all Four Core Areas: Risk Appetite and Model Risk

OFSAA also streamlines increasingly complex reporting requirements. The solution automates the final mile of reporting through integration with Lombard Reporting, facilitating regulatory reporting across various jurisdictions and serving the specific needs of the chief risk officer, chief financial officer, and chief data officer.

Looking deeper, OFSAA is built on the unified Oracle Financial Services Data Foundation, which underpins the applications and delivers critical value; ensures data consistency, accuracy, and integrity; and allows banks to create data in one location and use it for many different purposes to drive deeper insight. Data sourced for one application often has significant overlap with other applications. For example, Oracle Financial Services Basel Regulatory Capital, Oracle Financial Services Liquidity Risk Management, and Oracle Financial Services Profitability Management overlap in their input data requirements. Thus, sourcing data for one use case immediately makes deployment of the second use case a less onerous task.

In addition, Oracle Financial Services Analytical Application Infrastructure gives banks a platform that enables them to continually add new use cases for the data. For example, OFSAA's modeling framework enables banks to build models on top of the data foundation without creating a new silo. Finally, OFSAA sits on the industry-leading Oracle Database and a powerful big data platform.



Conclusion

As financial institutions forge ahead in uncertain territory, it will be imperative for them to not only familiarize themselves with CECL requirements, but also work to identify the data and system requirements to enable them to establish an effective process moving forward. While the 2020 deadline looms, meeting the requirements CECL has laid out is not an insurmountable task. For financial institutions, the key to success is beginning the journey now to ensure smooth travels on the road ahead.



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