Digital Finance for CECL

Presentation for WSFC Bi-weekly Webinar

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General ALLL/CECL Background

What is ALLL?

- **ALLL Stands for "Allowance for Loan and Lease Losses"**
- The purpose of the ALLL is to reflect estimated credit losses within a bank's portfolio of loans and leases.
- Estimated credit losses are estimates of the current amount of loans that are probable that the bank will be unable to collect given the facts and circumstances since the evaluation date (generally the balance sheet date).
- The ALLL is presented on the balance sheet as a contra-asset account that reduces the amount of the loan portfolio reported on the balance sheet.

Purpose of ALLL?

- The ALLL represents one of the most significant estimates in an institution's financial statements and regulatory reports.
- Each institution has a responsibility for developing, maintaining, and documenting a comprehensive, systematic, and consistently applied process for determining the amounts of the ALLL and the provision for loan and lease losses (PLLL).
- As of the end of each quarter, or more frequently if warranted, each institution must analyze the collectability of its loans and leases held for investment (hereafter referred to as "loans") and maintain an ALLL at a level that is appropriate and determined in accordance with GAAP.

ALLL Components

- Current ALLL accounting standards are referred to as "incurred loss" accounting, meaning something probably happened that caused impairment to the loan. For practical purposes, that impairment is normally measured in pools of loans and is typically based on historic charge-off data and migration analysis.

- The ALLL comprises three major components (excluding Purchased Credit Impaired loans):

Quantitative Models FAS 5 / ASC 450-20 + **Qualitative Factors SR 06-17 / SAB 102** + **Impaired Loan Reserve FAS 114 / ASC 310-10** = **Allowance for Loan and Lease Losses (ALLL)**

Quantitative Models FAS 5 / ASC 450-20

Estimate incurred credit losses inherent in groups of non-impaired loans with similar credit risk characteristics (i.e., delinquency status, risk grade, etc.)

Commonly used approaches include historical loss rate, migration analysis, expected loss model, etc.

Qualitative Factors SR 06-17 / SAB 102

Factors specified within regulatory (SR 06-17) and accounting guidance (SAB 102) evaluated in order to assess how actual losses in the groups of loans are expected to differ from FAS 5 / ASC 450-20 modeled loss estimates by accounting for risk factors not already included in the models.

Impaired Loan Reserve FAS 114 / ASC 310-10

Impaired loans are analyzed at least quarterly, with an analysis and reserve established consistent with FAS 114.

What is CECL?

- **CECL stands for Current Expected Credit Loss**
- In order to address weaknesses identified in current practice following the recent global economic crisis, the FASB decided to revisit how banks estimate losses in the allowance for loan and lease losses (ALLL) calculation.
- CECL is designed to remove the Probability Threshold and Eliminate the complexity of multiple credit impairment models / balance sheet goals.

What's New in CECL?

	Current GAAP	CECL Proposed
When is a Loss Recognized?	When loss is "probable" or "incurred"	No recognition threshold, updated at each reporting date
How Much of a Loss is Recognized?	The amount of loss that has been incurred	The current estimate of cash flows not expected to be collected
What Information Set Used to Determine a Loss?	Past events + current conditions	Past events + current conditions <u>+ reasonable & supportable forecasts</u>

Why CECL is important?

- CECL requires a change from backward-looking to forward-looking approach in setting allowance for credit losses.
- The CECL standard will have significant impact on institutions' loss forecasting process, accounting and infrastructure.
- The new CECL standard most likely would increase allowances amount and reduce capital level for majority of the financial institutions.
- For many institutions, CECL will generate a one-time reduction in book equity and lower stated earnings during periods of portfolio growth, which could be a concern for investors.

CECL Business Impacts

CECL project scope and business impact

Project management and governance

- Form core CECL team to focus on critical decisions
- Create local work-streams to iterate and solicit feedback
- Define clear project charter, approach and roadmap
- Manage project scope, track progress and report status
- Oversee project communications and executive reviews
- Establish clear roles and empower key stakeholders

Primary finance functions

- Develop new credit loss models
- Design enhanced accounting engine and processes to interface with new models
- Governance processes and SOX controls
- Plan for 12 months of end-to-end parallel runs

Secondary finance functions

- Evaluate impact on other forecasting functions
- CCAR, actual vs estimate, loss forecast, DTA impairment support
- Formulate new analytics and KPIs to explain results
- Create challenger models, multiple scenarios, Q-factor support

Business considerations

- Capital planning and potential impact on borrowing costs
- Day 1 allowance on M&A activity and other portfolio acquisitions
- Other LOB considerations beyond pure modeling and operational considerations

CECL will result in wide-ranging impacts and challenges across the enterprise…

	Key impacts of the accounting change			
	Accounting, tax and reporting	**Business**	**Systems and processes**	**People and change**
CECL	— Report and explain differences from CECL results to other credit loss forecasts (e.g., DFAST, FP&A) — Impact on regulatory and tax requirements — Additional disclosure requirements	— Impact to regulatory capital (and stress testing results), economic capital and rating agency capital — Impact on business models, KPIs, and internal management reporting — Impact on origination and structuring, risk management practices and treasury practices	— New systems (or upgrades to existing systems) to comply with standard — Design and documentation of controls would need to comply with new standard	— Training required for FP&A, accounting, treasury, tax, risk and origination/under-writing

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…and solving these challenges will require multi-disciplinary solutions

	Key impacts of the accounting change			
	Accounting, tax and reporting	**Business**	**Systems and processes**	**People and change**
CECL	— Stratification of the population of financial assets into appropriate credit loss models — Update accounting policy manuals — New methodologies and controls to ensure that judgment is exercised and supported appropriately	— Document observed emerging industry practices — Evaluate options (based on conceptual soundness, level of effort, financial statement impact)	— Upgrade accounting and risk management systems — Leverage data or calculations used for regulatory purposes (e.g., Basel/CCAR/ DFAST) — Changes to key internal controls over financial and regulatory reporting	— Governance organization and changes — Impact on internal resources — Training (accounting, tax, legal, etc.) — Accounting change PMO and change management team (cross- functional impact requires effective communication)

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CECL Modeling overview

CECL data, modeling, and forecasting overview

Implementing the modeling and analytics support system for generating CECL estimates presents challenges that require careful research, planning, and decision-making in a three core areas:

Data

Sourcing and storing data:

- Data across the loan life-cycle
- Data spanning representative economic environment (multiple cycles preferred)
- Complete event histories

Addressing data gaps:

- External information
- Data imputation

Using data for CECL:

- Determining representative historical data period
- Defining fields appropriately for CECL calculations
- Data retention

Modeling

Model selection:

- Adapting CCAR/ALLL Approaches
- Segment level or full bottom-up modeling
- Vendor solutions vs. custom/in-house models
- Methodology selection:
  - Roll-rate, vintage, static pool
  - Logistic regression, survival, hazard models
  - Rating-based approaches, migration/transition matrix

Other modeling considerations:

- DCF considerations
- Point-in-time vs. through-the-cycle
- Qualitative factors
- Estimating future CECL provisions for CCAR

Forecasting

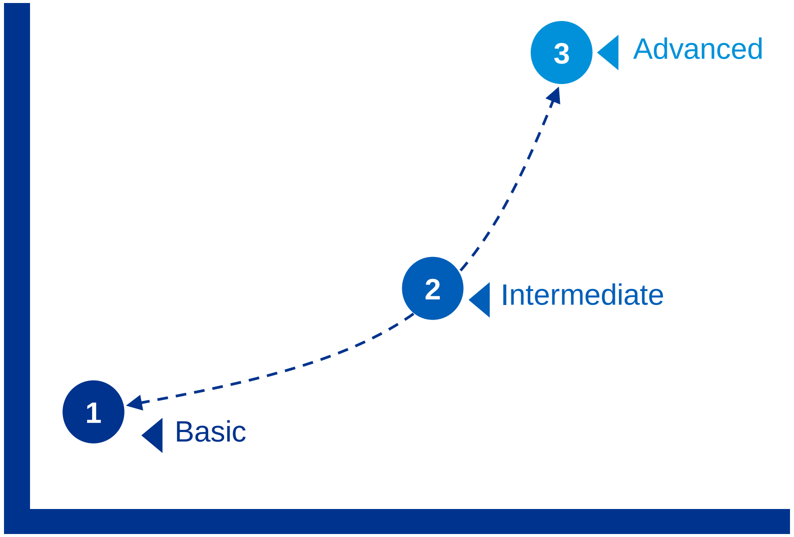
Macroeconomic inputs

- Defining the reasonable and supportable period
- Macroeconomic forecast generation and sourcing
- Multiple scenarios/probability weighting

Reversion to historical information

- Selecting historical information to use for reversion
- Input level vs. overall estimate level
- Immediate, straight-line, or other
- Reversion period

Level of modeling complexity



Advanced (sufficient history, material portfolio)

- Robust models to incorporate forecasts of macroeconomic conditions used to adjust loss curves.
- Loss curves exist for PD, LGD and EAD and are updated both by internal and external data

Specific issues

- Challenging to explain to senior management and investors
- Consistent roll out of economic scenarios
- Significant overheads

Basic (new, non-material balances)

- A simplified approach to ECL by using management judgment to determine provision rates

Specific issues

- How to evaluate that management judgment is accurate and correlated to historical data
- Is it acceptable under the standards and with the regulators

Intermediate (limited data, new portfolio)

- Model PD using simple statistical averages
- LGD assumptions are flat
- Loss curves are generated using external benchmarks
- Economic forecasts included as a management overlay

Specific issues

- Substantiate economic overlays
- Insufficient details in development of PD

Digital Transformation of CECL

What does it mean?

An automated CECL landscape significantly changes the role of the accountant

Many are concerned that technology may eliminate jobs

It actually will eliminate the most time-consuming, manual processes

Help deliver the strategy and analysis

Data, modeling, and forecasting Automation

- Automated loss estimation for estimating a financial institution’s reserve.
- Increase consistency and more defensible to auditors and examiners,
- Saving time in financial reporting each quarter.
- Assist with the implementation of their ALLL models and guidance interpretation.

What ROBOTIC PROCESS AUTOMATION

The amount of financial data continues to increase

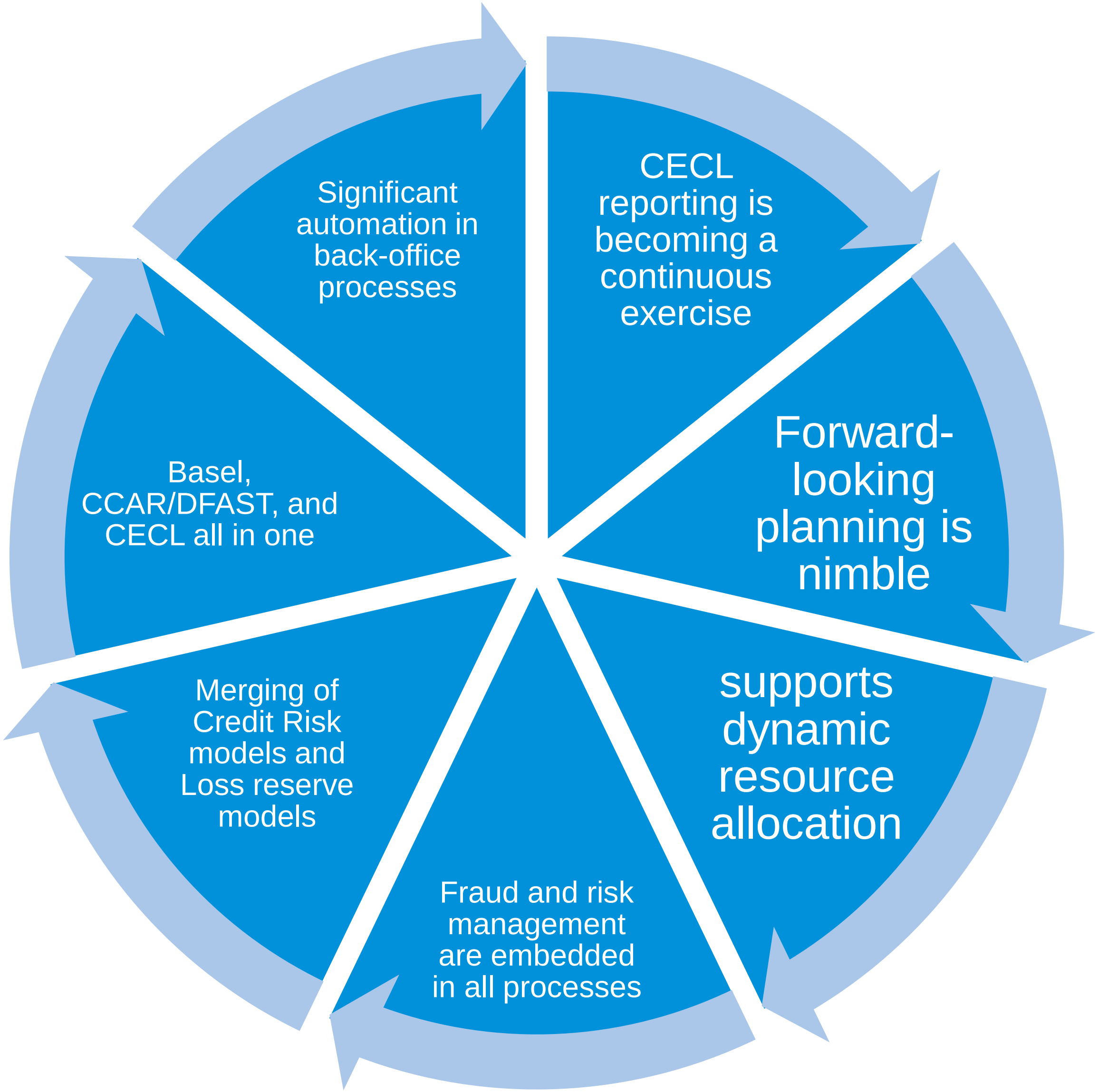
Creates real-time access to financial data for continuous monitoring and analysis

More Focus on decision support, predictive analytics, and performance management.

Relevant, timely data executives need to inform business decisions and develop strategy

Increasingly complex regulatory guidelines

In the future



Q&A

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