BankDirector

Breakout 3: Model Validation & the Rising Expectations from Examiners

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#BDAudit24

Session

Bank Audit & Risk Conference
Tuesday, 11:15am – 12:00pm – **Model Validation & the Rising Expectations From Examiners** *(45 mins)*

Speakers: Erica Carlson, Principal, CliftonLarsonAllen LLP; Dustin Morris, Manager, CliftonLarsonAllen LLP

Session Description:
Given the current interest rate environment, more attention is being placed on models being used by banks for a variety of reasons such as CECL, asset liability management, etc. Model validations and third-party risk assessments are critical to ensure models are behaving as management and the board expects and provide useful information for decision making. This session covers the critical elements of a model validation and third-party risk assessment, to provide management and boards with the tools necessary to effectively evaluate the models in use within their institution.

We'll get you there.

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Model Validation & the Rising Expectations from Examiners

June 11, 2024

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About Your Speakers

Erica Carlson is principal of CLA's (CliftonLarsonAllen LLP) financial services practice. She is a CPA with more than 25 years of experience in public accounting. Erica is the service line leader for our internal audit practice. Erica has deep internal control experience working with FDICIA and SOX financial services clients. Erica can be reached at erica.carlson@CLAconnect.com

Dustin is a manager at CLA (CliftonLarsonAllen LLP) and a leader with the national credit risk services team. He uses his extensive banking knowledge to provide credit risk management services to clients. Dustin has over 15 years of banking experience with 10 years as a safety and soundness bank examiner within the Federal Reserve System focused on credit risk management. His experience with evaluating credit and related processes for community and regional banking organizations and strong communication skills makes him a valuable trusted advisor to clients and prospects. Dustin can be reached at dustin.morris@CLAconnect.com

Learning Objectives

- Understand why third-party and model risk is on the radar of regulators and what you need to do to prepare for your next safety and soundness exam
- Approach to properly managing third-party and model risk

Third-Party Risk

Third-Party Risk Definition:

- OCC Bulletin 2013-29 defines a third-party relationship as any business arrangement between the bank and another entity, by contract or otherwise.
    - These could include outsourced products and services, use of independent consultants, networking arrangements, merchant payment processing, services provided by affiliates and subsidiaries, joint ventures, and other business arrangements in which the bank has an ongoing relationship or may have responsibility for the associated records.

Third-Party Risk Management Expectations:

Risk rate your relationships

- High Risk
  - Significant customer impact
  - Amount of time to implement new third-party
  - Major impact on operations

Perform due diligence and ongoing monitoring

- Common Items
  - SOC Reports
  - Financial Statement Analysis
  - Disaster Recovery Plans

Common roadblocks in performing third-party risk management:

No ability to negotiate contract terms

Not given insight into disaster recovery plans

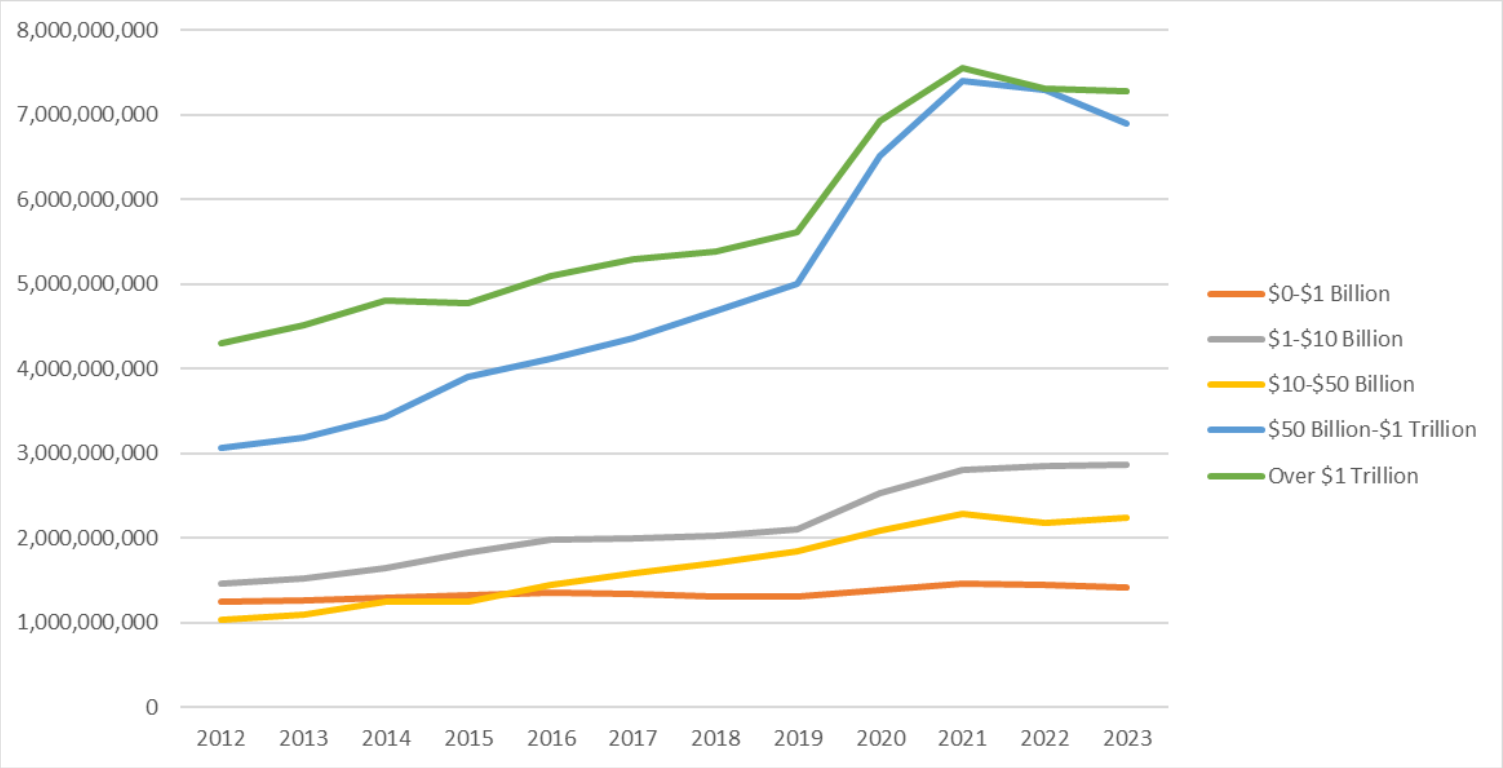
Are not allowed to perform site visits

Responses to common roadblocks in performing third-party risk management analysis:

- Assess the bank's risk appetite to engage the third-party.
- determining appropriate alternative methods to analyze third parties (e.g., use information posted on the third party's website).
- being prepared to address interruptions in delivery (e.g., use multiple payment systems, generators for power, and multiple telecom lines in and out of critical sites).
- performing sound analysis to support the decision that the specific third party is the most appropriate third party available to the bank.
- retaining documentation of efforts to obtain information and related decisions.
- confirming that contracts meet the bank's needs even if they are not customized contracts.

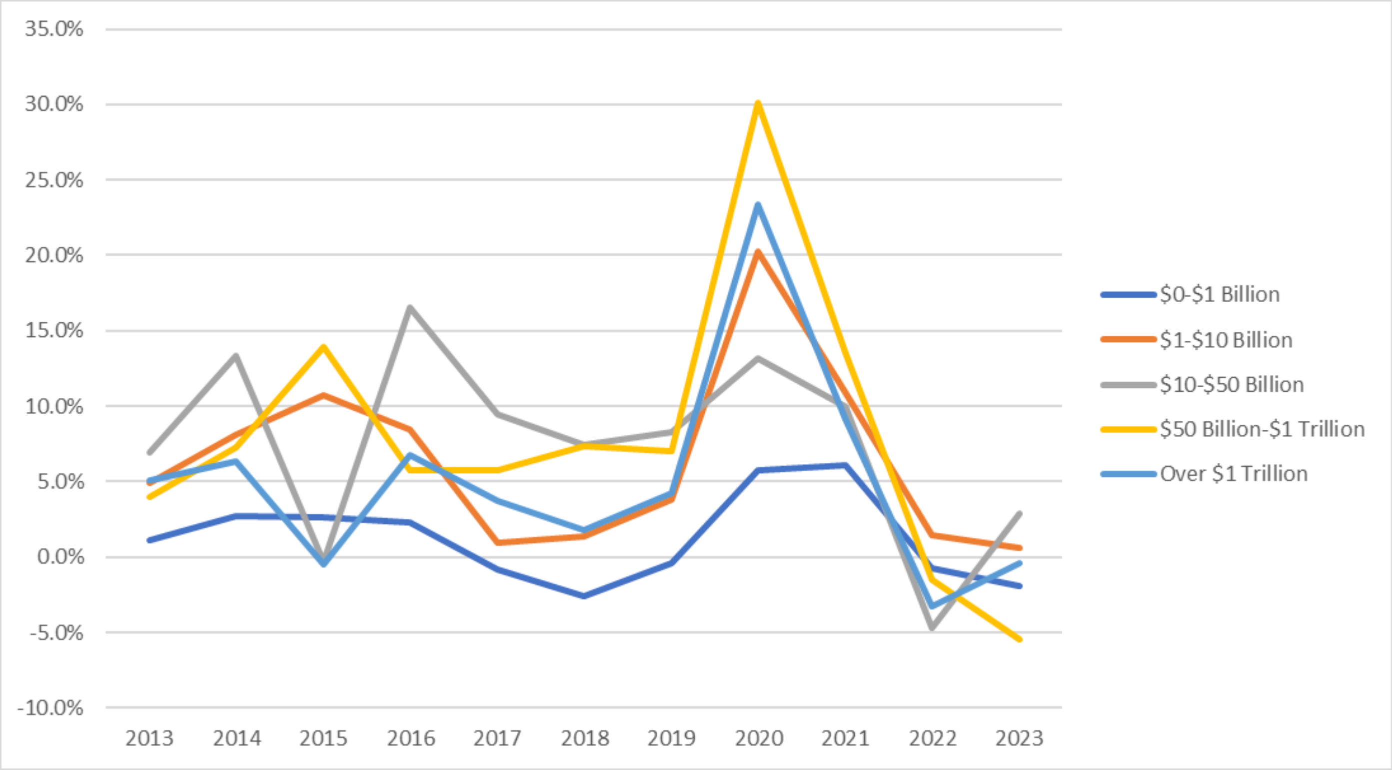
Current State of the Industry

Current Trends in Deposit Balances



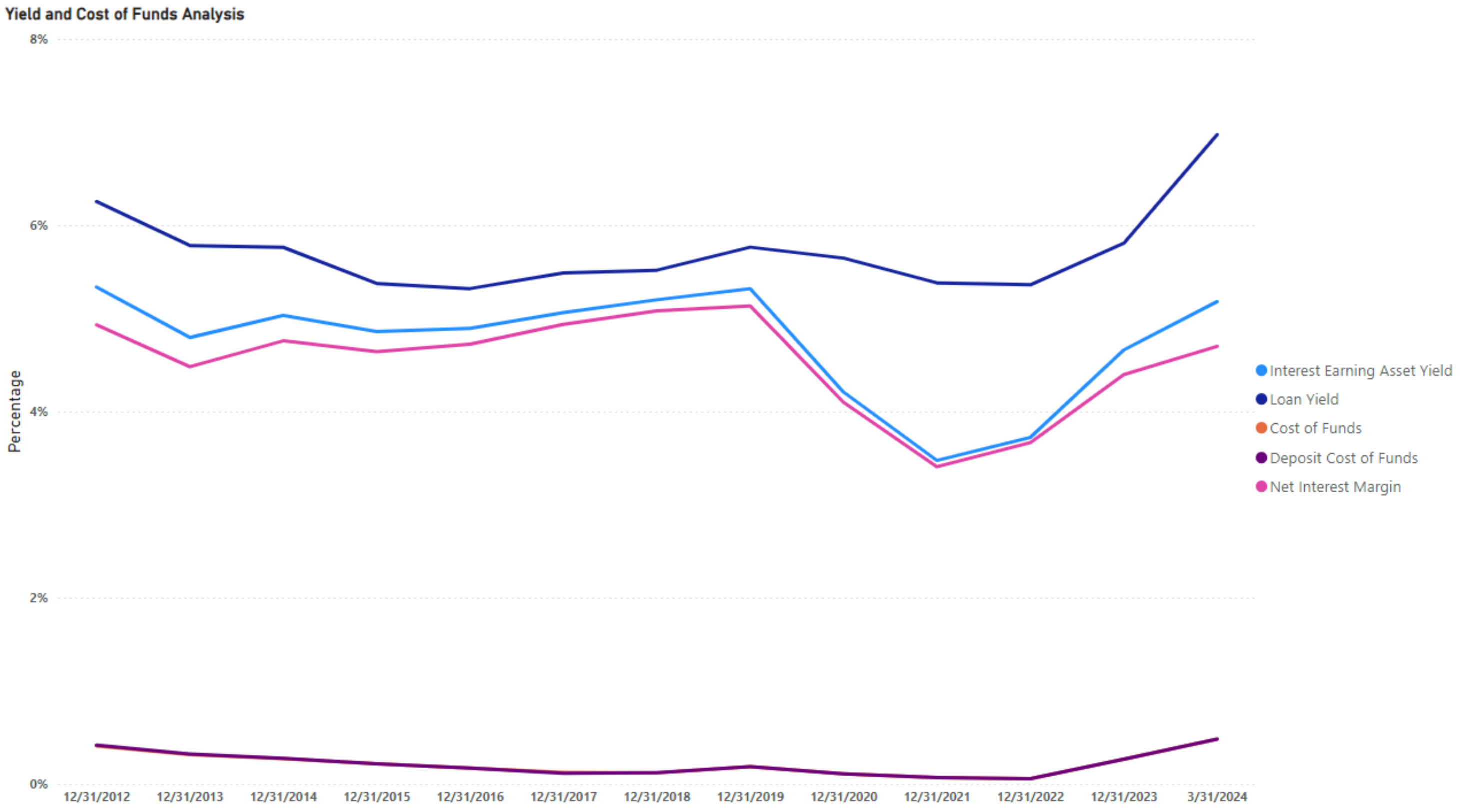
Source: Bank Call Report Data

Current Trends in Deposit Balances (Cont.)



Source: Bank and Credit Union Call Report Data

What Has Happened to Margins?

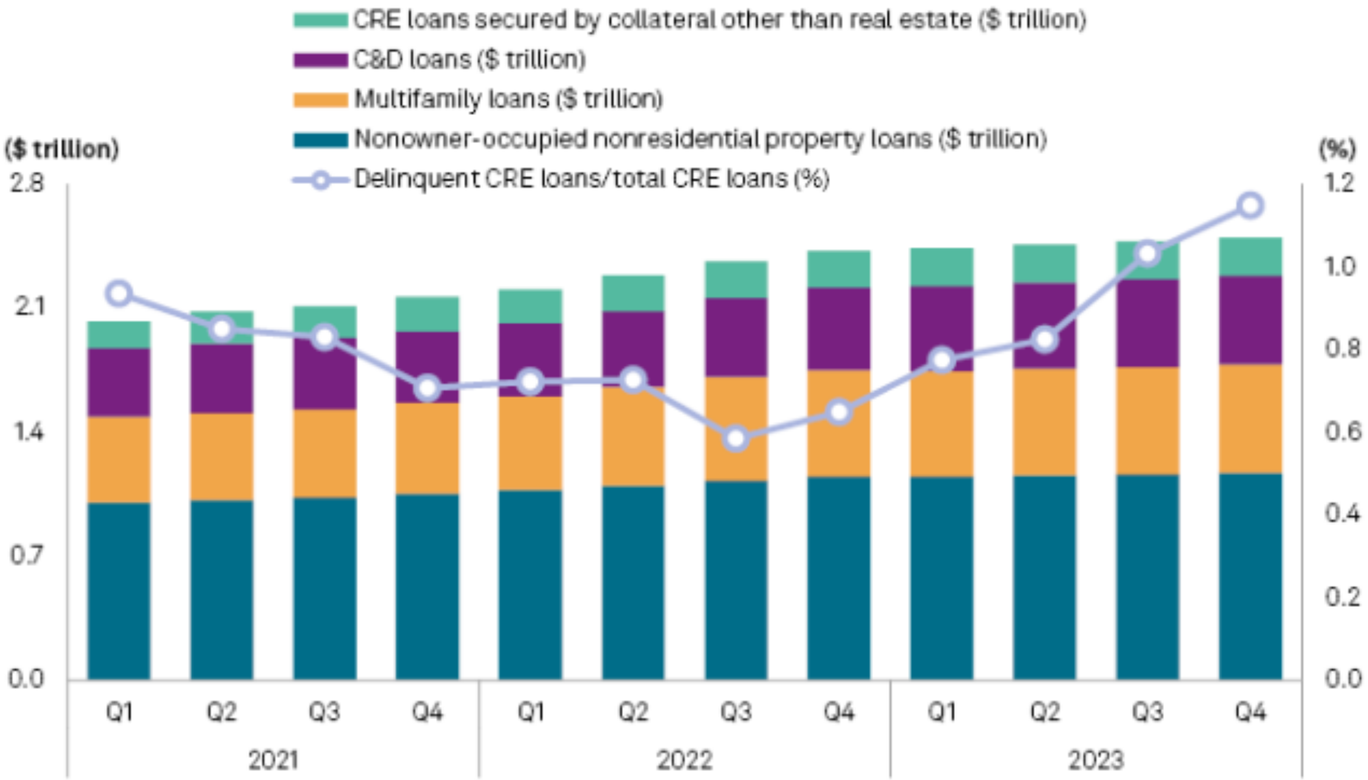


Source: Bank Call Report Data

Consumer Loan Delinquency Trend

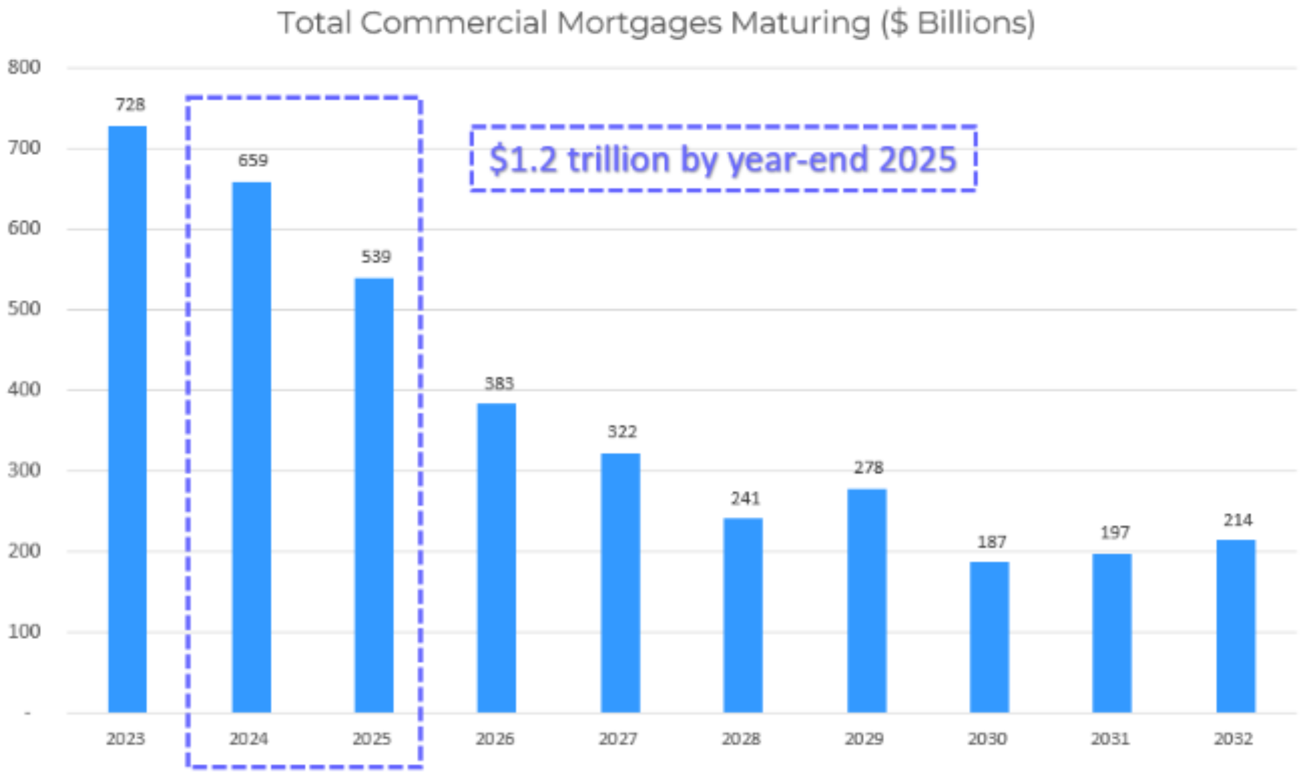
Source: FRED, St. Louis Reserve. March 2024

CRE Delinquencies by Loan Type



Source: S&P Global Market Intelligence

CRE Maturities and Refinance Needs



Source: CRED iQ, MBA

Model Risk

Model Risk Definition

- OCC's Overview of Model Risk Management
    - The model may have fundamental errors and may produce inaccurate outputs when viewed against the design objective and intended business uses. The mathematical calculation and quantification exercise underlying any model generally involves application of theory, choice of sample design and numerical routines, selection of inputs and estimation, and implementation in information systems. Errors can occur at any point from design through implementation. In addition, shortcuts, simplifications, or approximations used to manage complicated problems could compromise the integrity and reliability of outputs from those calculations. Finally, the quality of model outputs depends on the quality of input data and assumptions, and errors in inputs or incorrect assumptions will lead to inaccurate outputs.
- Common Bank Models
    - BSA/AML
    - Asset Liability Management
    - CECL

Questions to Consider as Part of Model Risk Management:

Data! How confident are we in the data extraction process

Alignment within the Model

Are we running appropriate scenarios

What are the key assumptions and how are they documented and reviewed

Do we have the appropriate model and have they received a 3rd party review

What do Regulators Expect of You?

- Have a well-defined policy for the specific area under review
- Minutes of the appropriate governance committee should list the strategies used by management to properly identify risk.
- The minutes should also clearly demonstrate that the committee had sufficient information to perform its assigned duties.
- Perform a model validation on a periodic basis.

OCC Comments on third-party model validations

- Many third parties provide banks with reports of independent certifications or validations of the third-party model. Validation reports provided by a third-party model provider should identify model aspects that were reviewed, highlighting potential deficiencies over a range of financial and economic conditions (as applicable), and determining whether adjustments or other compensating controls are warranted. Effective validation reports include clear executive summaries, with a statement of model purpose and a synopsis of model validation results, including major limitations and key assumptions. Validation reports should not be taken at face value. Bank management should understand any of the limitations experienced by the validator in assessing the processes and codes used in the models.

Key components of model validations

- Assessment of model construct and estimations
- Review of model inputs including any component models in use
- Review and assessment of the model methodology
- Assessment of the final output and estimates or both quantitative and qualitative components
- Assessment of documented model policies and procedures

Why is ALM on the Radar of Regulators

- How reasonable and supportable are our assumptions
- The yield curve.....
- Interest rate expectations
- Significant mismatch between the terms customers want for loans and term deposits.
    - Long term fixed rate loans
    - Short maturity deposits

Approach to Validating ALM Models

- Typical procedures include:
  - Determine whether the institution has established an ALCO committee and that all significant functions or departments within the institution are represented on the committee.
  - Evaluate the adequacy of the information provided to the ALCO committee and the minutes maintained by the committee.
  - Evaluate the level of the Board of Directors' involvement in and oversight applied to the ALCO function.
  - Obtain a copy of the institution's ALM policy and evaluate the adequacy of the policy in comparison to both current regulatory requirements and industry best practices.
  - Obtain a copy of the liquidity contingency plan and determine if the plan appears adequate to address any sudden significant losses of the institution's funding sources.

Approach to Validating ALM Models

- Typical procedures include:
  - Evaluate the use of floors and caps within the model
  - Evaluate the reasonableness of the projected net changes in interest bearing assets and liabilities due to interest rate fluctuations on a sample basis.
  - Perform look back testing.
  - Ensure "what-if" scenarios or sensitivity analysis is being performed.

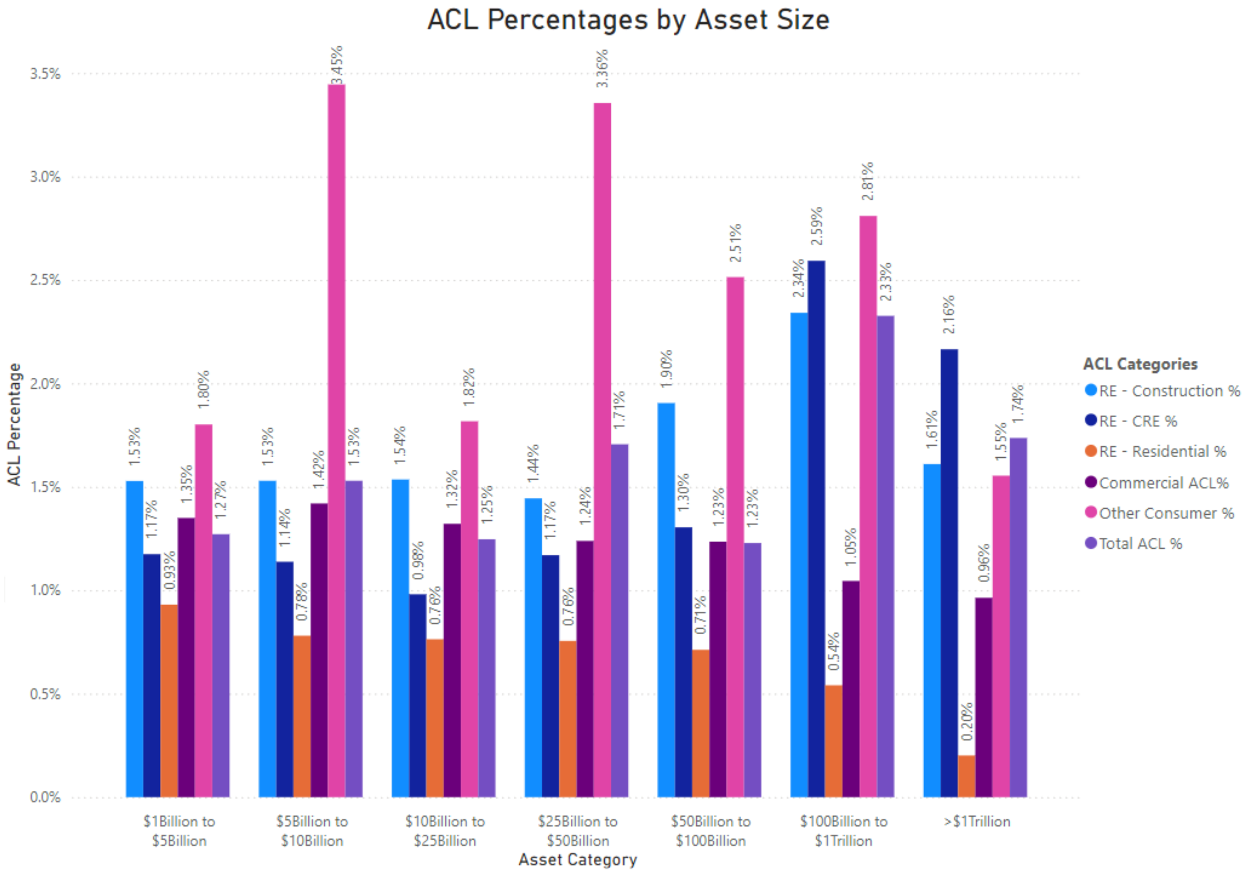
Why is CECL on the Radar of Regulators

- What methodologies are being used
- How reasonable and supportable are our assumptions
- What data is being used in the model
- What calculations are being used
- How is our documentation on our process, policies, and procedure?

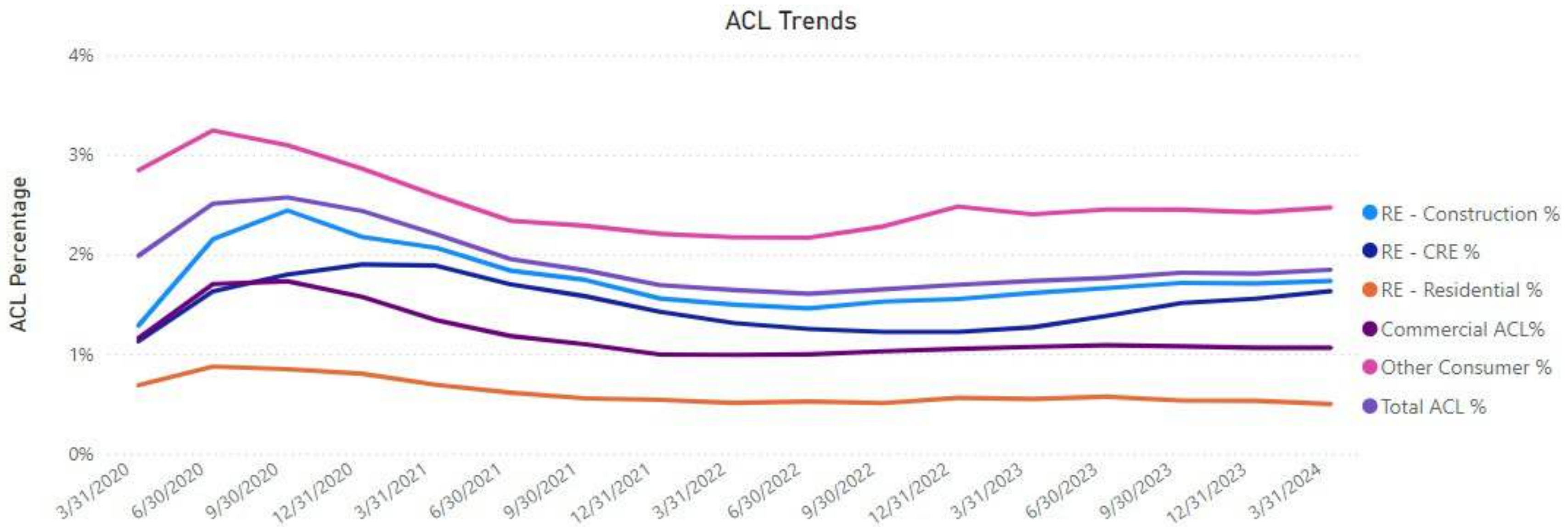
Approach to Validating CECL Models

- Typical procedures include:
  - Selection of Methodology/Adoption of Policy
  - Portfolio Segmentation
  - Forecast Period
  - Calculation User Access
  - Historical Loss Calculation
  - Qualitative/Forecast Adjustments
  - Adjusted Lifetime Loss Rate Application
  - ACL reporting
  - Back testing/Sensitivity Analysis/Peer Comparison

As of 3/31/24



ACL Percentages by Asset Size
ACL Percentage
3.5%
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%
1.53%
1.17%
0.93%
1.35%
1.80%
1.27%
1.53%
1.14%
0.78%
1.42%
3.45%
1.53%
1.54%
0.98%
0.76%
1.32%
1.82%
1.25%
1.44%
1.17%
0.76%
1.24%
3.36%
1.71%
1.90%
1.30%
0.71%
1.23%
2.51%
1.23%
2.34%
2.59%
0.54%
1.05%
2.81%
2.33%
1.61%
2.16%
0.20%
0.96%
1.55%
1.74%
$1Billion to $5Billion
$5Billion to $10Billion
$10Billion to $25Billion
$25Billion to $50Billion
$50Billion to $100Billion
$100Billion to $1Trillion
>$1Trillion
Asset Category
ACL Categories
RE - Construction %
RE - CRE %
RE - Residential %
Commercial ACL%
Other Consumer %
Total ACL %


ACL Trends
ACL Percentage
4%
3%
2%
1%
0%
3/31/2020
6/30/2020
9/30/2020
12/31/2020
3/31/2021
6/30/2021
9/30/2021
12/31/2021
3/31/2022
6/30/2022
9/30/2022
12/31/2022
3/31/2023
6/30/2023
9/30/2023
12/31/2023
3/31/2024
RE - Construction %
RE - CRE %
RE - Residential %
Commercial ACL%
Other Consumer %
Total ACL %

Resources

- Section 6.1 Liquidity and Funds Management (fdic.gov)
- INTERAGENCY ADVISORY ON (ffiec.gov)
- Comptroller's Handbook: Model Risk Management | OCC (treas.gov)
- Third-Party Relationships: Risk Management Guidance | OCC

It takes balance.™

It's our job to engage in conversations, listen to what you really want, and apply our talents and experience to make extraordinary impact on your organization and life.