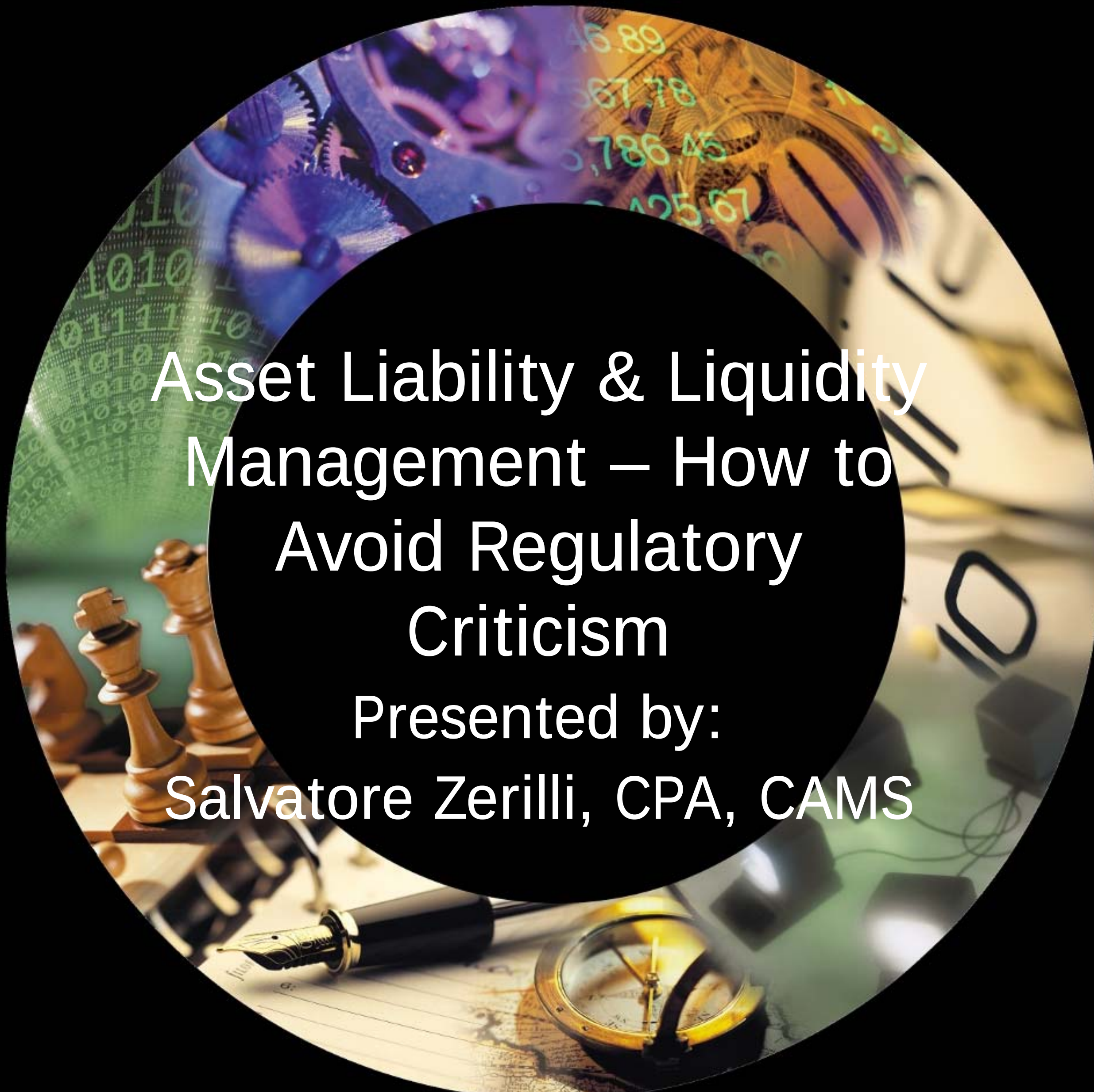

# Asset Liability & Liquidity Management – How to Avoid Regulatory Criticism

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Certified Public Accountants | Consultants | Wealth Management | Technology

# Asset/Liability & Liquidity Management

- Agenda:
  - Common pitfalls
  - Policy components
  - Model simulation reporting
  - Model validation
  - Back testing of the model

# Asset/Liability & Liquidity Management Common Pitfalls

- Bank is operating outside of the policy EVE and NII thresholds. Minimal discussion and action plan noted in ALCO meeting minutes.
- Failure to ensure accuracy of model
- Lack of model assumption review or documentation of such a review
- Model is limited to one year and should be expanded to a two year period
- Model is utilizing a static balance sheet

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# Asset/Liability & Liquidity Management Common Pitfalls

- ALCO minutes do not contain enough detail
- Lack of back testing of model results
- Lack of projected cash flow analysis
- Lack of liquidity contingency plan
- Stress testing of projected cash flows not performed

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# Asset/Liability & Liquidity Management Policy

- There are two main risks that the policy is to address

1. Increased exposure or potential loss due to inadequate asset and liability management guidelines.

2. Increased exposure or potential loss due to inadequate asset and liability management.

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# Asset/Liability & Liquidity Management Policy

- Increased exposure or potential loss due to inadequate asset and liability management guidelines
  - The Bank's policy should address
    - Liquidity parameters
    - Source and use of funds
    - Maturities
    - Minimum levels of liquid assets
    - Acceptable levels and strategies of interest rate risk

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# Asset/Liability & Liquidity Management Policy

- The Bank's policy should address
  - Contingency funding plans
  - Whether to employ off-balance sheet interest rate contracts
  - Responsibilities within the bank for funds management functions
  - Reporting mechanisms
  - Acceptable levels of concentrations in funding sources
  - Earnings at risk parameters

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# Asset/Liability & Liquidity Management Policy

- The Bank's policy should address
  - Model validation
  - Define responsibilities of model construction and audit
  - Model documentation
  - Types and frequency of model reports

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# Asset/Liability & Liquidity Management Policy

- Increased exposure or potential loss due to inadequate asset and liability management
  - ALCO to meet monthly
  - ALCO to include members from all lines of management
  - ALCO discussions to be in depth and appropriately reflected in the meeting minutes

# Model Simulation Reporting

- Majority of banks have implemented simulation models over the past few years due to increased pressure form their primary regulators
- A bank may have a simulation model and also rely on manual GAP and liquidity models
- Bank needs to embrace the simulation model and utilize it not just to see the results of current balance sheet makeup by also to strategize future products and rate structures

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# Model Simulation Reporting

- Make sure the model simulation is being generated timely
  - Close out the month
  - Generate reports to upload to the model
  - Receive the initial model output
  - Review for adequacy of input
  - Review and assess the results

# Model Simulation Reporting

- Model needs to cover a two year period
- The model should be run based on different scenarios
  - Static balance sheet
  - Balance sheet changes as documented in the bank’s budget and/or strategic plan
  - Changes in asset/liability structure to assist the bank in staying in established thresholds

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# Model Simulation Reporting

- Model can be run with rates
  - Ramped up/down gradually
  - Immediately shocked up/down
  - Move in parallel with forecasted/anticipated change in rates (i.e. strategic plan/budget)

# Model Simulation Reporting

- Liquidity reporting
  - Assess liquidity risk and determine stress levels
  - Develop appropriate responses plans
  - Project future cash flow
  - Stress testing

# Model Simulation Reporting

- Base case – normal operations
  - Cash flow includes items such as unencumbered repo eligible bond collateral, available loan secured borrowing facilities (FHLB and Federal Reserve Bank), and authorized access to the brokered deposit markets.

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# Model Simulation Reporting

- Elevated risk which needs to assess funding deficiencies
  - Stress scenarios create pressure on deposit flows, reduce access to wholesale funding (e.g. repos, FHLB, FRB) and limit access of funds available through brokered deposit channels.
- Test funding sources which are reviewed less frequently at least annually

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# Model Validation

- There are two main risks with relying on simulation models
  1. Increased exposure or loss due to incorrect data/assumptions used in calculating risk measurements
  2. Increased exposure or loss due to inadequate monitoring of assumptions used in the simulation model

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# Model Validation

- Validation of the model mitigate these risks
  - Senior management must document its review, challenges and approval of key assumptions
    - All assumptions should be listed within the detail model reports
    - Identify which assumptions are key
    - Document the banks rationale for utilizing the assumption

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# Model Validation

- Someone independent of the process needs to review and document data input
  - Reconcile the general ledger balance sheet to the model
  - Reconcile the deposit, loan and investment trial balances to the model. This should include totals by stated maturity and average rates.
  - Current rates by product

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# Model Validation

- Senior management needs to challenge the output
  - Document review of output in comparison to your initial expectations
  - Detail reasons for any material deviations noted

# Model Validation

- Model validation must be completed prior to relying on the results of the model
- The validation process must be documented
- Complete this process timely as it may be necessary to re-create the model if any issues were noted with the data inputs, assumptions or data output

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# Back Testing

- Back testing of previous models allows the bank to assess the appropriateness of the assumptions utilized by management
- Typically completed on a model run six months prior
- Review prior model and identify a scenario which was most in line with actual events

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# Back Testing

- Compare the model results of this scenario with actual net interest income

- If the results are within reason

  - Document this process as part of the current model assessment of key assumptions

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# Back Testing

- In instances where there is a material variance
  - Attempt to identify actual events unforeseen in the previous model
  - Document these events in order to conclude that the key assumptions utilized in the previous model were adequate
  - If no root cause can be identified, the bank must re-assess the key assumptions

# Back Testing

- Documentation of back testing is a critical component in assessing the adequacy of the key assumptions utilized in the model

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# Questions

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# Contact Information


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