

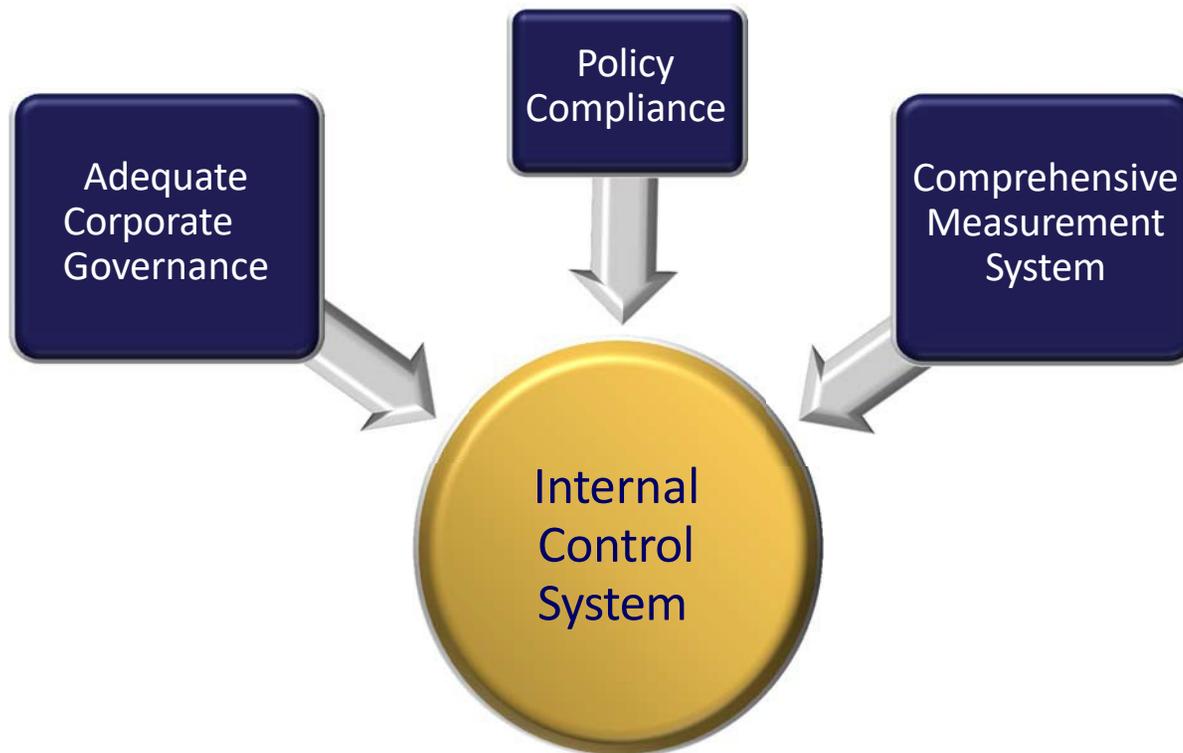


## Interest Rate Risk

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### VII. Internal Control & Review

# System to Ensure Integrity of IRR Management Process



# Establish an Effective System of Internal Controls

- **Roles, Responsibilities, and Lines of Authority**
- **Separation of Duties**
- **Adequacy of System Inputs and Measurement Systems**
- **Policy Compliance**
- **Independent Review and Validation**
- **Corrective Action Procedures**

# Review to Ensure Integrity, Accuracy, and Reasonableness



- **Cover Entire Interest Rate Risk Process**
- **Scope Consistent with Risk & Complexity**

# Review & Validate Adequacy of Internal Control System



- **Lines of Authority**
- **Separation of Duties**
- **Follow-up on Corrective Actions**

# Review Personnel Compliance with Internal Control System



- **Assess Whether Staff is Complying with Procedures**

# Review & Validate Adequacy of Risk Measurement System



- **Model Should Capture Complexity**
- **Cover Short-term & Longer-term Periods**

# Review & Validate the Accuracy of Data Inputs



- **Data Integrity**
- **Review Controls over Data Inputs**
- **Test Data Inputs**

# Review & Assess Assumptions



- **Reasonableness of Assumptions**
- **Documentation**
- **Sensitivity Analysis**
- **Reasonable Scenarios Modeled**

# Review the Validity of Mechanics & Mathematical Calculations



- **Internal Models:**  
Institution should obtain independent validation
- **Vendor Models:**  
Vendor should provide third-party validation results
- **Consistent with Complexity**

# Backtesting Results & Assumptions



- **Model Results vs. Actual Results**
- **Assumptions vs. Experience**
- **Isolate Cause of Discrepancies**

# Report Findings to Board



- **At Least Annually**
- **Provides Summary Findings**
- **Provides or Identifies Critical Assumptions**

# Summary

- **Maintain an Adequate Internal Control System**
- **Maintain an Effective Independent Review & Validation Function**