

DFAST Lessons Learned – Midsize Banks

John Lankenau

Vice President, Product Management

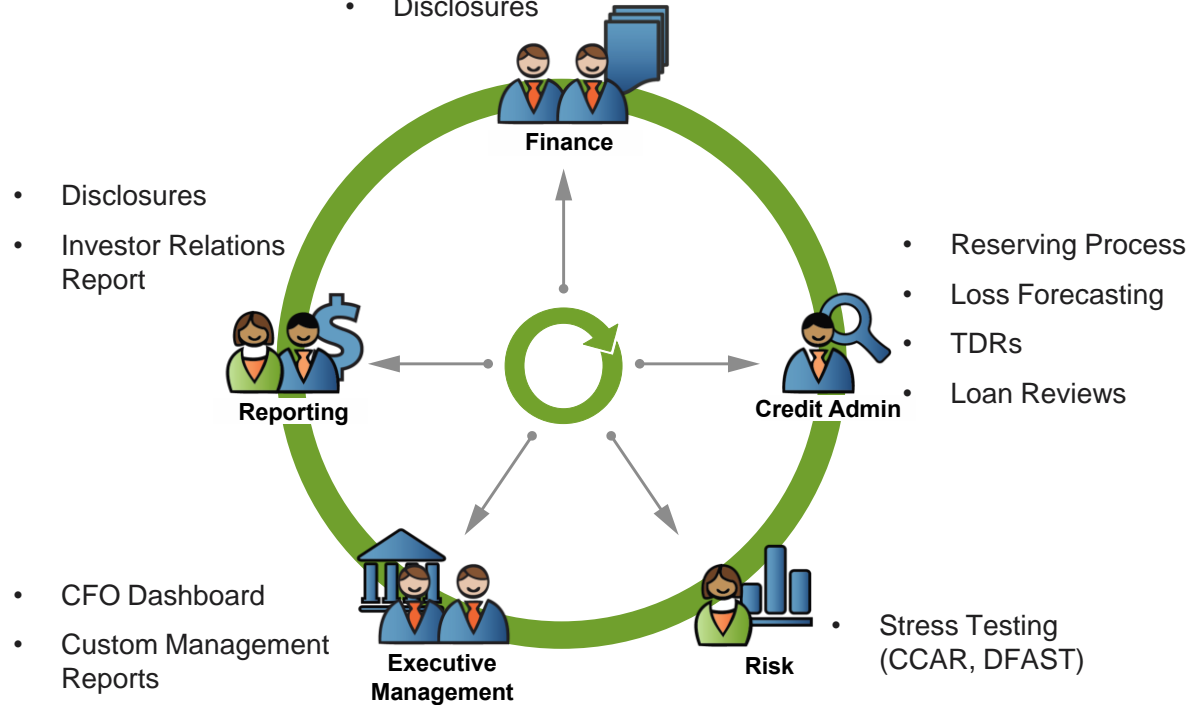


Primatics Overview

Primatics' mission is to help banks and financial institutions evolve. We provide an enterprise-grade SaaS solution for accounting, valuation and compliance of loan portfolios

- We focus on loan portfolios – the core business of banks
- Our solution, Evolv, empowers banks' users to comply with regulations, manage complexity and make better decisions
- We provide a SaaS (Software-as-a-Service) Solution with best-in-class security, flexibility and business scalability
- We currently have 50+ customers across all asset sizes, including over 15 Tier 1 (\$10B+) financial institutions

- Performing and Non-performing GAAP Accounting
- Acquired Books
- Accounting Forecasting (CCAR, DFAST)
- Disclosures



Meet the Presenter

Mr. John Lankenau, Vice President – Product Management, Primatics Financial

Mr. Lankenau is the head of valuation and accounting solutions. He has 20+ years of financial services industry experience, with an emphasis on the implementation, testing and use of complex models for financial reporting and compliance. Mr. Lankenau has spoken at numerous conferences and events on stress testing, notably the annual AICPA conference.

Introduction

- Discussion of lessons learned
 - Client feedback
 - Other financial institutions' commentary
 - Other industry participants (regulators, partners, conferences)
- Context is important
 - Big (\$50B+) institutions have been performing enterprise-wide stress testing for years – some lessons are applicable, some are not
 - Final rule for midsize banks didn't come out until March 2014

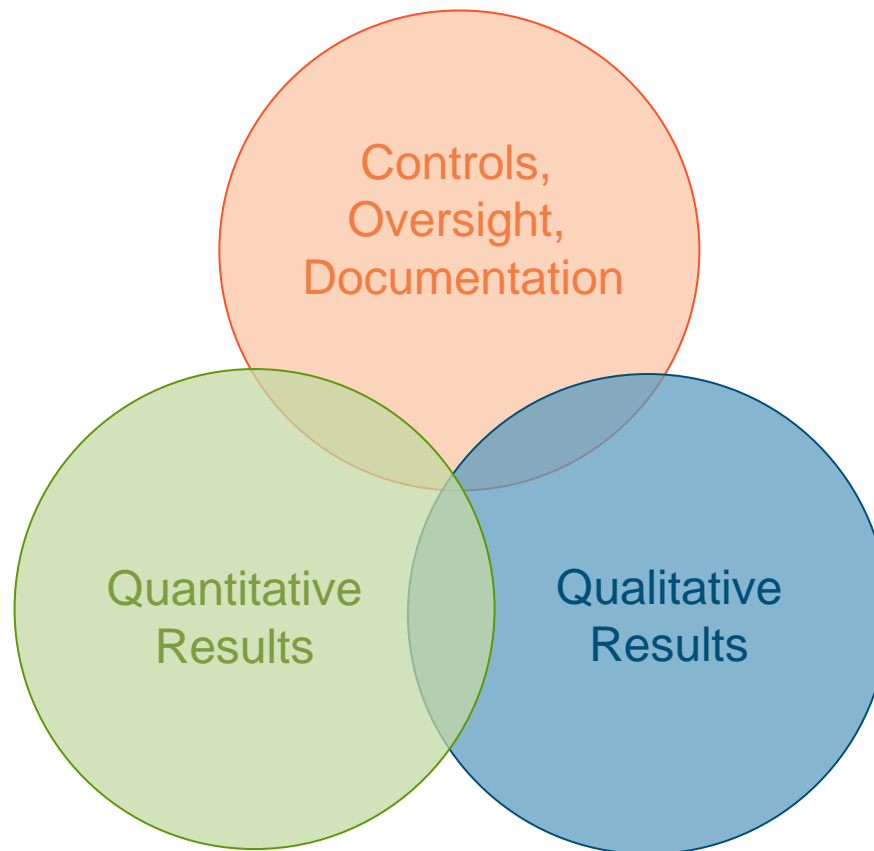
Polling Question

For Midsize banks: How was the DFAST exercise relative to your institution's expectations?

- a) Less challenging than we expected
- b) About as challenging as we expected
- c) Much more challenging than we expected
- d) N/A – we are not a midsize bank with DFAST obligations

Establishing Scope

Components of a regulatory enterprise-wide Stress Test





Lessons Learned in Oversight, Controls, and Documentation

Controls and Oversight

- Oversight was generally robust
 - Senior steering committees are a common practice
 - Broad expectation of board involvement generally met
- Controls were lacking in some areas
 - New processes, often manual
 - Resource constraints
 - Controls not a huge area of attention, but called for by regulatory guidance

What to expect:

➡ *“Real” controls will become more important over time*

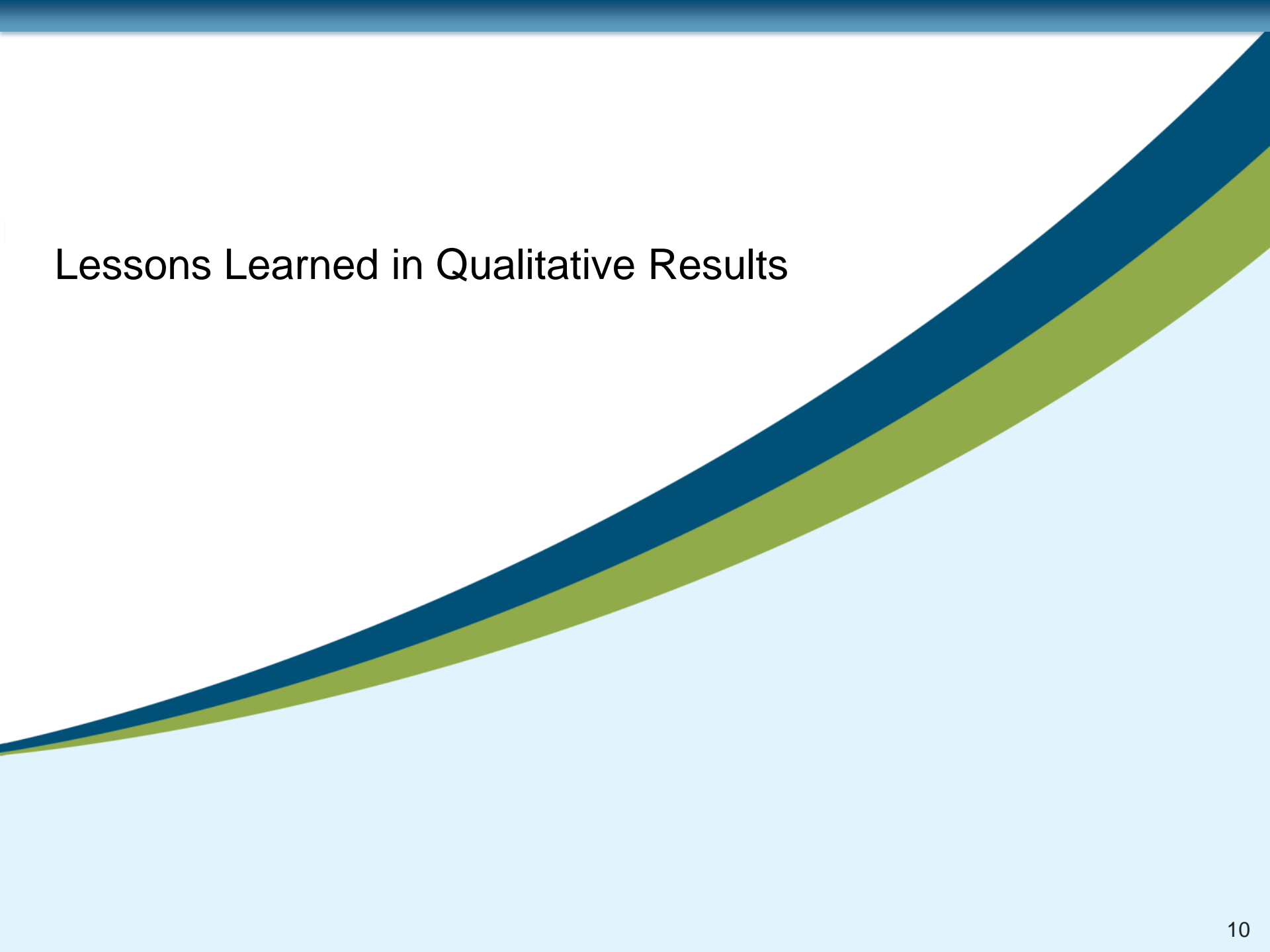
Documentation

- “Buy a good printer” to meet documentation requirements
 - Can’t have too much documentation
 - Packages for Board and regulators often 1000+ pages
 - Well-documented lagging process not much worse than poorly documented leading process – at least for now

What to expect:

➡ *Documentation needs will go deeper*

Lessons Learned in Qualitative Results



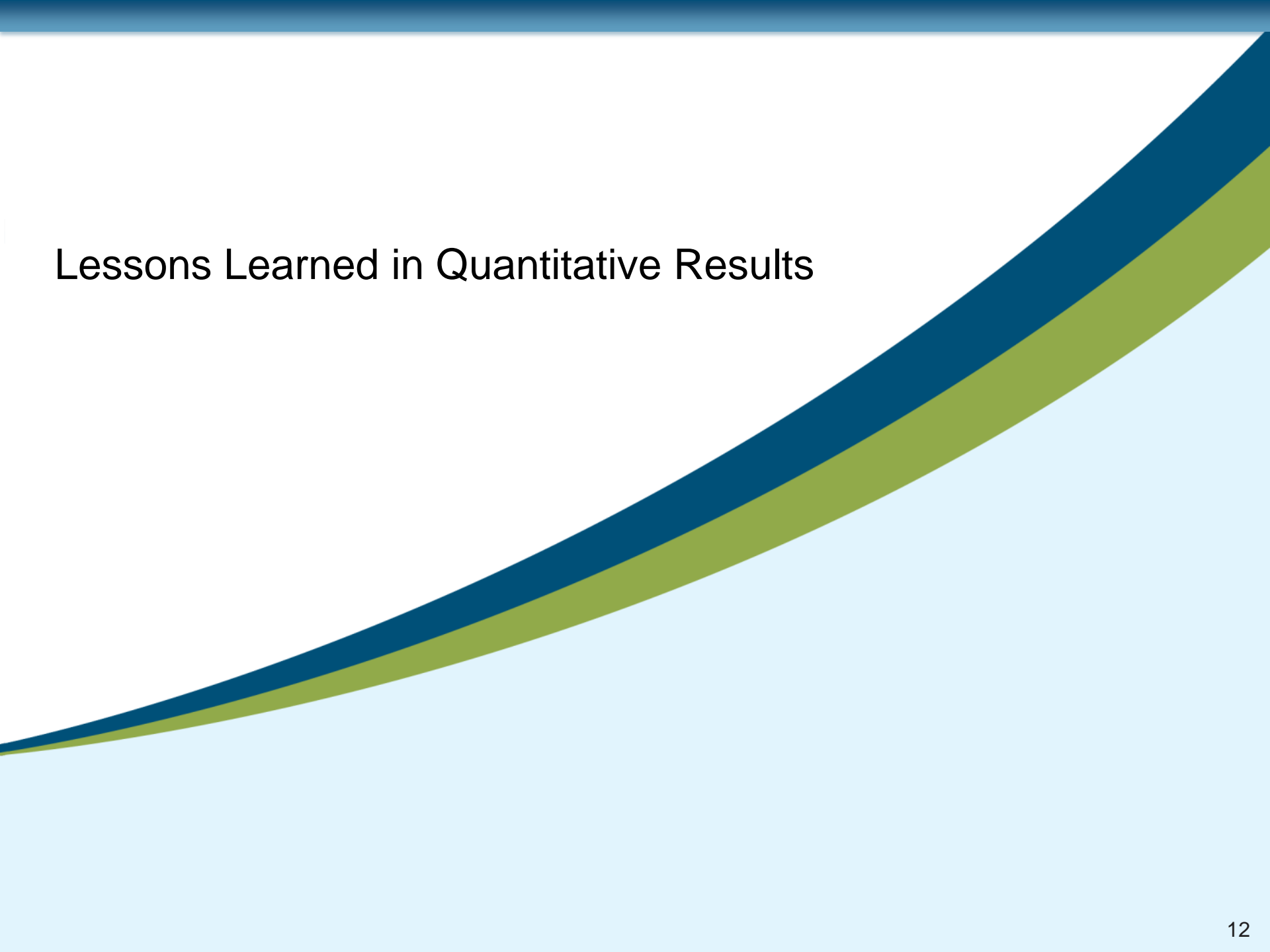
Qualitative Lessons Learned

- Processing more of a focus than explaining
 - Cross-institution involvement at senior level was a positive
 - Systems deficiencies made it challenging and inefficient – lot of manual work
 - New thought processes were required
- Documentation focus was on what and how, not why

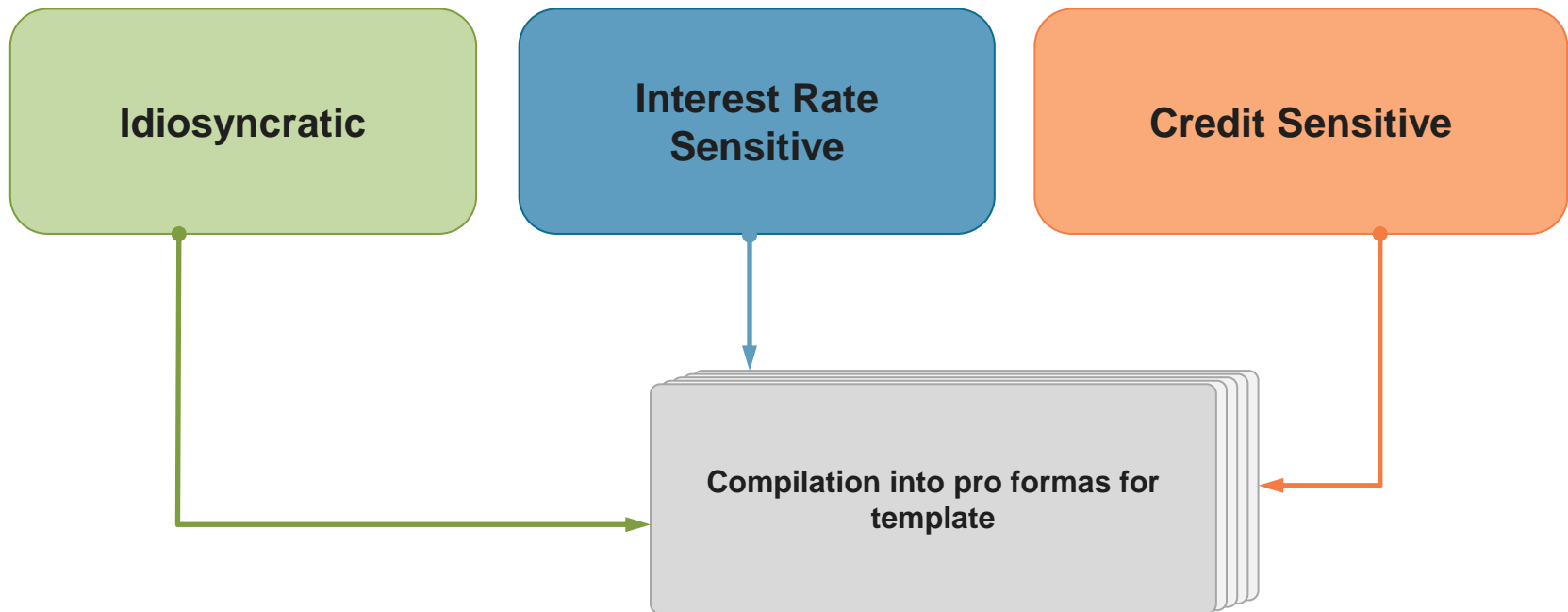
What to expect:

- ➡ *A deeper understanding of drivers of change will be required. This will put pressure on existing resources*
- ➡ *Documentation will need to extend to focus more on why things changed*

Lessons Learned in Quantitative Results



Components of the quantitative portion



Lessons on Idiosyncratic Portion of Quantitative Results

- Non-interest income and non-interest expense part of PPNR
- Area of least complexity
 - Individual assumptions required work to support
 - Aggregating into pro forma statements and templates fairly straightforward
- Wide range of assumptions used, including simple “models”
- Not a particular area of regulatory scrutiny
- Operational risk not significant for midsize DFAST

What to expect:

- ➡ *May be asked to increase justification of some assumptions, especially more important ones*
- ➡ *PPNR in general became a much bigger regulatory focus for bigger banks around the third year*

Lessons on interest sensitive: Assets

- Securities – GSE MBS, Treasuries
 - Simple assumptions used for pricing as general practice
 - OTTI not a big issue
 - Interest income estimated using simple assumptions

What to expect:

- ➡ *No big changes except for banks where this portfolio is particularly material. Maybe more scrutiny on assumptions, especially when capital becomes less abundant*
- ➡ *When interest rates eventually go up, MBS prepayments will become more important drivers of price and assumptions will become more important*

Lessons on Interest Sensitive: Liabilities

- Funding – Retail (deposits) and Wholesale
 - Important assumptions for regulatory stress testing and related concerns such as liquidity
 - Balances very important
 - Challenging to model robustly
 - Most midsize institutions used simple assumptions on deposit growth/contraction and composition.

What to expect:

- ➡ *This is an area of emerging research for larger banks. How much will this trickle down?
When?*

Lessons on Credit Sensitive

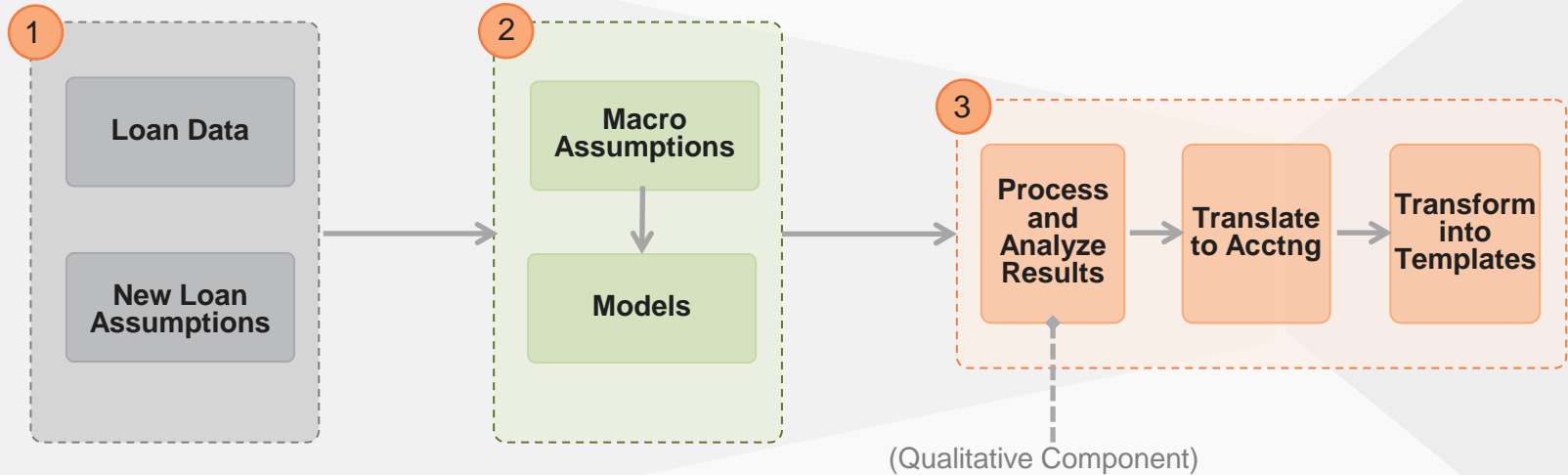
- Municipal bond portfolios generally immaterial
- Loans are most important part of exercise
 - Most complex
 - Biggest materiality
 - Biggest operational challenges
 - Balances very important, not just forecast behavior

What to expect:

More and better!

➡ *More robust estimation, more robust processes, more robust understanding of drivers of change*

Stress Testing a Loan Portfolio – Key Conceptual Activities



1 Data

2 Modeling and Macro

3 Understanding results, transforming, and reporting

Lessons on Loan Data Challenges

- Lack of historical data makes modeling difficult
 - Regulators want you to come up with a strategy, but at small end of midsize bank range this will always be a challenge
 - “Proxy data” acceptable with limitations
- Unstructured data means information exists but is not useful
- New loans
- Inadequate data architecture
 - Lack of single source of truth
 - Lack of present integration of data between risk and finance

What to expect:

- ➡ *“Companies are expected to have appropriate management information systems and data processes that enable them to collect, sort, aggregate and update data and other information efficiently and reliably within business lines and across the company for use in DFA stress tests”*
- ➡ *Improved process to integrate new originations better into stress tests*

Polling Question

For Midsize banks: What is the current state of data and data management at your bank with respect to stress testing?

- a) Data is a challenge – bank could benefit from a comprehensive data initiative
- b) Work in progress – initiatives spurred by stress testing are underway but far from complete
- c) Mature/sound – initiatives spurred by stress testing are complete or nearly complete
- d) Mature/sound – bank has historically had strong data and data management competencies
- e) N/A – we are not a midsize bank with DFAST obligations

Lessons Learned on Scenarios and Modeling

- Wide range of modeling practices – “good, bad, ugly”
 - Best models pass bar for CCAR and will be useful for CECL
 - Worst models not valid and were built using poor techniques
 - Vendor models not an issue, though analysis and documentation were needed
- Much investment in model validation, but a long way to go
- Lack of centralized model execution platform hurt process for many institutions
- Strain on truly competent modeling resources

What to expect:

- ➡ *Real models will be necessary.*
- ➡ *Model Validation bar will be raised – “effective challenge”*

Polling Question

For Midsize banks: Which of the following that describe credit modeling approaches applicable to your institution for your most material loan portfolios (check all that apply):

- a) We built models using internal historical bank data
- b) We built models using industry-level proxy data (e.g., call reports)
- c) We built models using loan-level proxy data
- d) We bought vendor models
- e) Don't know
- f) N/A – we are not a midsize bank with DFAST obligations

Lessons Learned on Scenarios and Modeling

- Regulators provide 26 macroeconomic variables
 - Most not applicable to regional banks, though some banks used all
 - Some institutions supplemented with more variables
 - Some institutions supplemented with regional variables

What to expect:

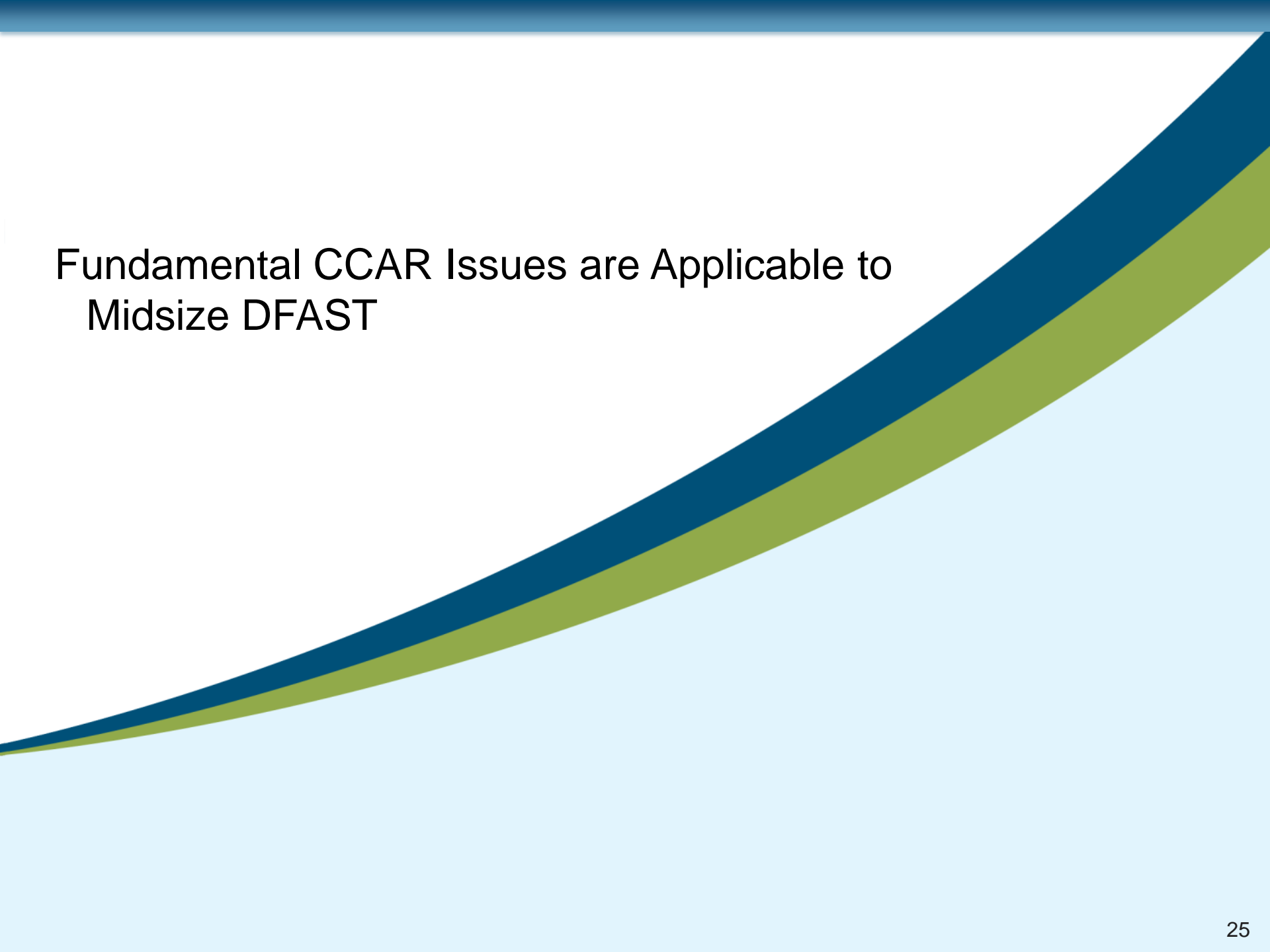
➡ *More justification of variables not provided in scenarios*

Lessons learned in Understanding, Transforming and Reporting on Results

- Understanding results was hard for many institutions
- Translation of model results to accounting numbers was a challenge for some institutions
- Nuts and bolts work of aggregating all the results into the templates was preferable to a sharp stick in the eye, but not by much

What to expect:

- ➡ *Focus on improving this process as it's the biggest impediment to effective stress testing. Regulators will see what is possible and expect it.*



Fundamental CCAR Issues are Applicable to
Midsize DFAST

Polling Question

For Midsize banks: What has your institution done recently to improve stress testing activities? (Check all that apply)

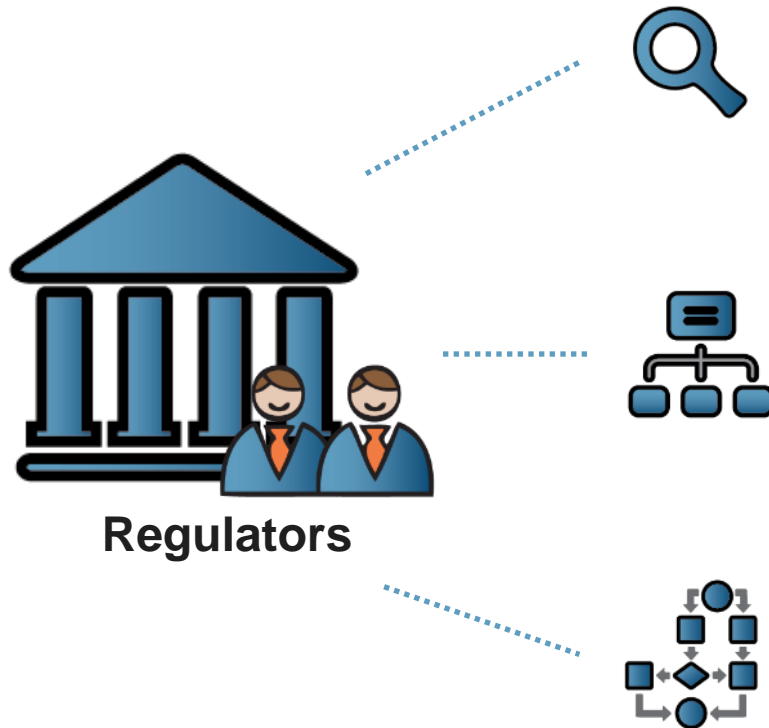
- a) Hired advisors to help with process, governance, controls
- b) Hired consultants to help with execution
- c) Hired full time staff to focus on stress testing
- d) Bought or built new technology or upgraded existing technology
- e) Bought or built new models
- f) Significantly improved data management, structure or organization
- g) None of the above
- h) N/A – we are not a midsize bank with DFAST obligations

Polling Question

For Midsize banks: What will your institution do next year to improve stress testing activities? (Check all that apply)

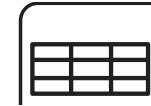
- a) Hire advisors to help with process, governance, controls
- b) Hire consultants to help with execution
- c) Hire full time staff to focus on stress testing
- d) Buy or build new technology or upgrade existing technology
- e) Buy or build new models
- f) Begin or continue initiative to significantly improve data management, structure or organization
- g) None of the above
- h) N/A – we are not a midsize bank with DFAST obligations

Any of these sound familiar?

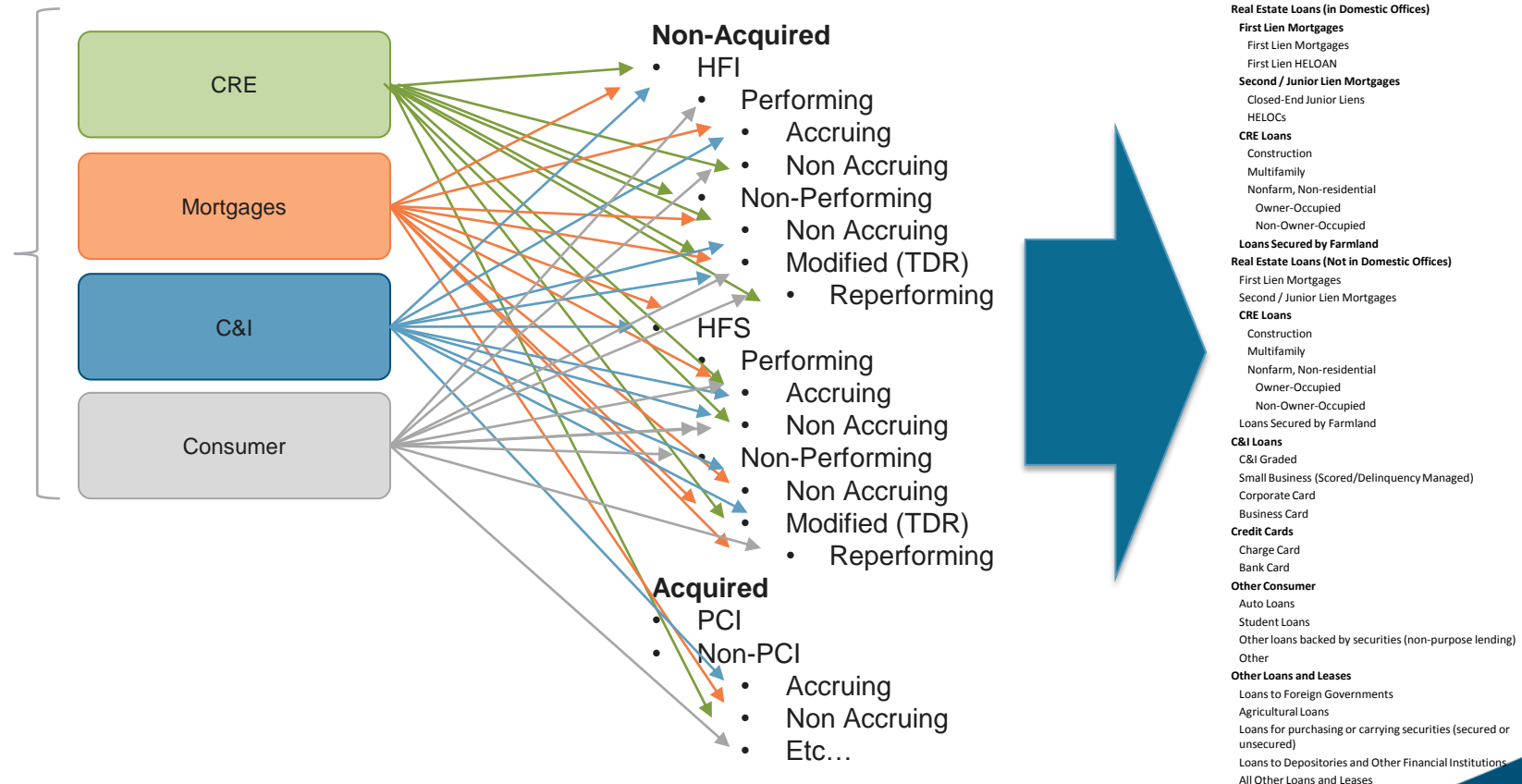


- Many BHCs have systems that are antiquated and/or siloed and not fully compatible, requiring substantial human intervention to **reconcile** across systems*
- BHCs with lagging practices exhibited a high degree of manual intervention in the **aggregation** process*
- BHCs should ensure that projections present a coherent story within each scenario...For example, origination assumptions should be the same for projecting loan balances, related loan fees, origination costs, and loan losses...Balance sheet assumptions used to project net interest income should be **consistent** with balance sheet assumptions considered as part of loss estimation*

Risk and Finance Fundamentally Divide Loans Differently



Asset Types / Categories



Consistency Issues

Inconsistency

- Caused by using one system for interest income and other processes for loss forecasting.
- Thus the same loan is represented in two places and iteration is necessary to get the forecast balances to agree.

Current Approach

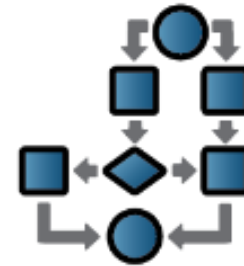
- Leading practice is platform for executing credit models. Consider this strategically:



Solve aggregation and reconciliation issue at same time



Make sure it's going to be useful for future needs such as CECL





Conclusion: General Lessons and Closing Thoughts

General Lessons

- Conservative is better than not
- Risk appetite vs actual risks – eye-opening in some cases
- There is no single magic system that does everything.
 - But many institutions are already looking at stress testing platforms to replace the inefficient use of existing systems
- Being \$10.1 billion is no fun – banks with twice the assets spent roughly the same amount of time and effort
- Institutions that have strong BAU processes and good integration between groups tended to do better
- Stress testing highlighted gaps in understanding between groups
- Overall time pressure much less than for CCAR exercise...not easy but nowhere near the marital trouble caused
- Best to invest holistically and strategically
- This year somewhat exploratory

Future Expectations

- Expect more questions on why instead of what and how
- Bar will rise next year and thereafter
 - How much expectation of model improvement will there be?
 - How much expectation of process improvement will be?
 - How will regulators normalize?
 - Where will they focus first?
- Stress testing to become more “useful”

Polling Question

Based on the feedback from your submission, how much do you plan on changing for next year?

- a) None or hardly at all
- b) Some
- c) A lot
- d) Don't know
- e) N/A – we are not a midsize bank with DFAST obligations

Q&A

Contact

John Lankenau

Vice President of Product Management

8401 Greensboro Drive, Suite 300
McLean, VA 22102

info@primaticsfincial.com