

Producing Objective Income & Balance Sheet Forecasts

Brian Poi, Director

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Today's Speaker



Brian Poi

Director, Specialized Modeling

Brian develops a variety of credit loss, credit origination and deposit account models for use in both strategic planning and CCAR/DFAST environments.

Brian also develops and validates models and provides guidance on the use of advanced modeling methods.

Agenda

1. Common Challenges
2. Case Study: Small-bank Peer Analysis
3. Case Study: Super-regional CCAR Banks
4. Solution & Methodological Approach
5. Q&A

1

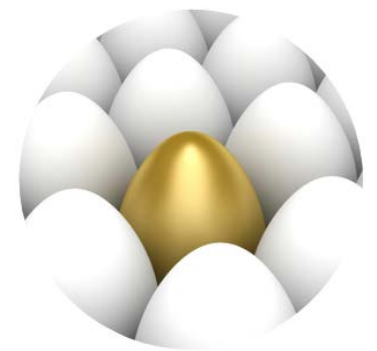
Common Challenges

Challenges

What we hear from market participants

Barriers

- » Influence of idiosyncratic factors (including management actions and M&A activity).
- » Difficulty benchmarking performance individual competitors and peer groups.
- » Internal forecasts often fail to account for competitors' behavior.
- » Gaps or limitations in historical data.



Using Objective Forecasts

Assessing performance under baseline and adverse scenarios

Small Banks

- » Primary Stress Testing Solution
- » Capital Planning
- » Finding Acquisition Targets
- » Competitive Analysis

Medium and Large Banks

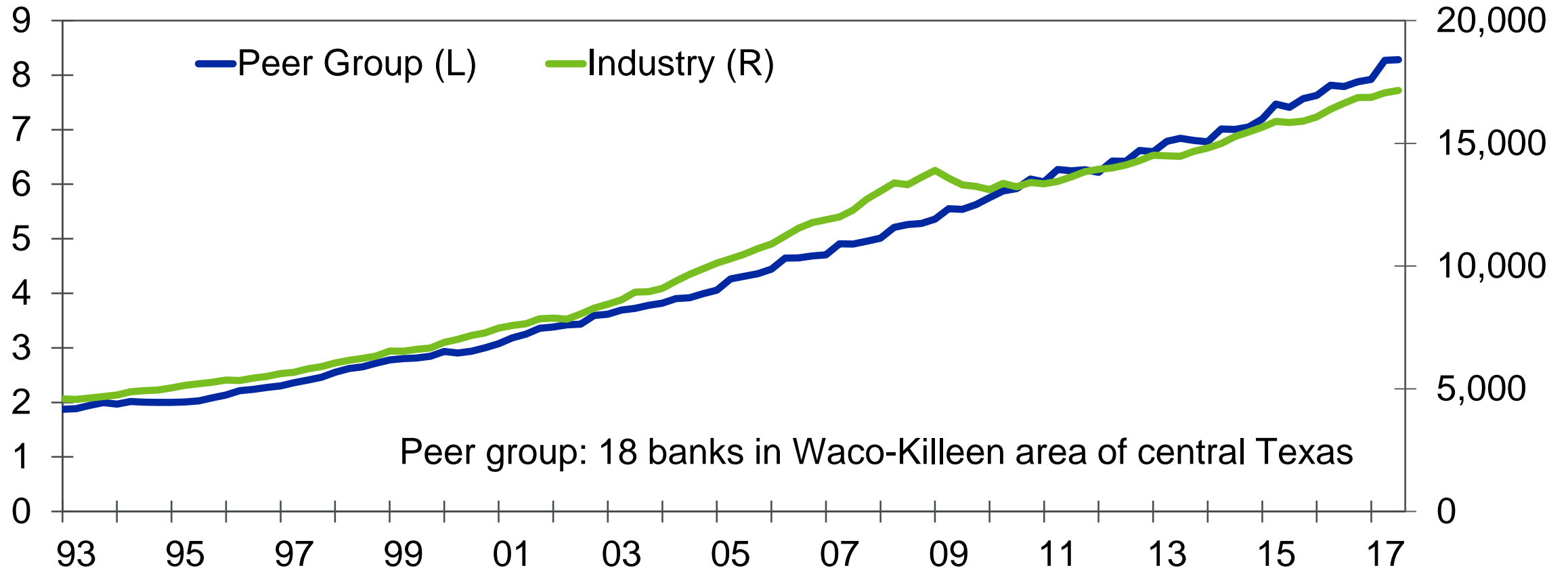
- » Benchmarking Internal Models
- » Capital Planning
- » Finding Acquisition Targets
- » Competitive Analysis

2

Case Study: Small-bank Peer Analysis

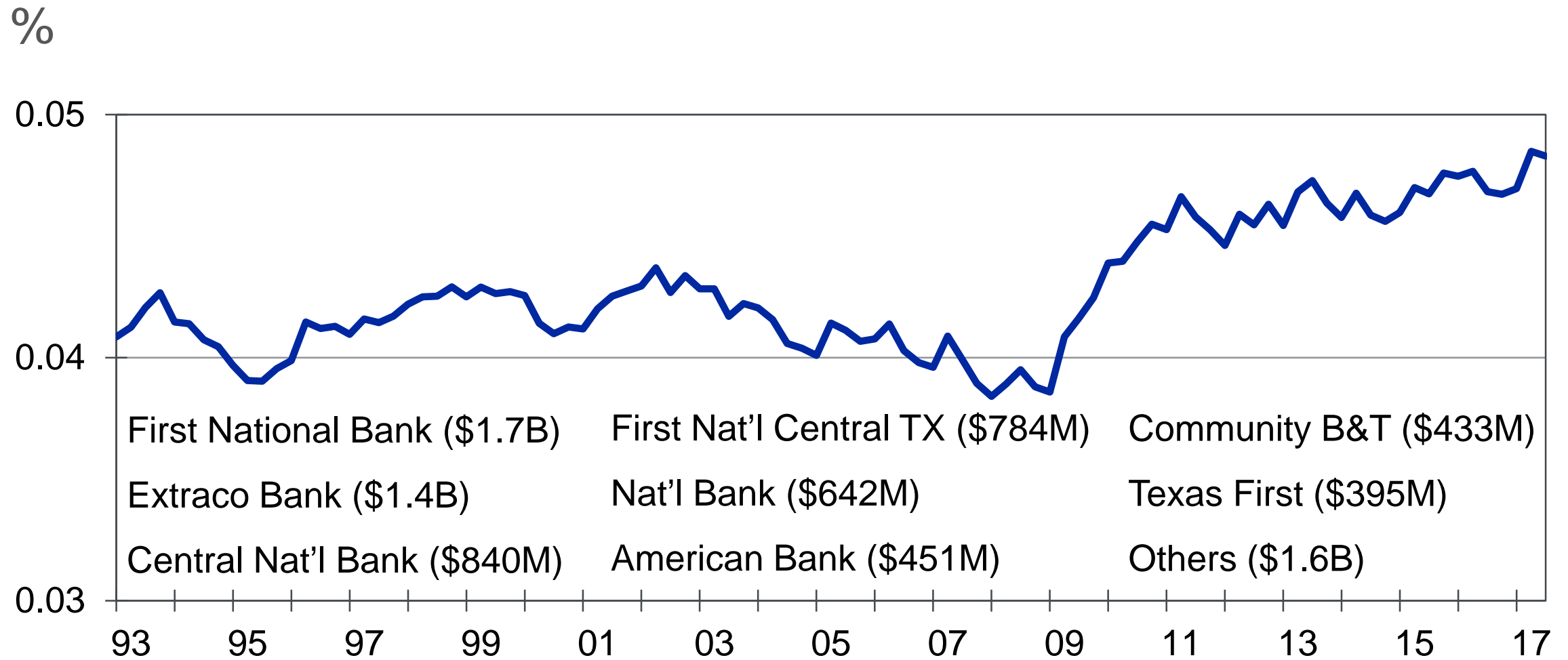
Peer Group and Industry Assets

\$ bil



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

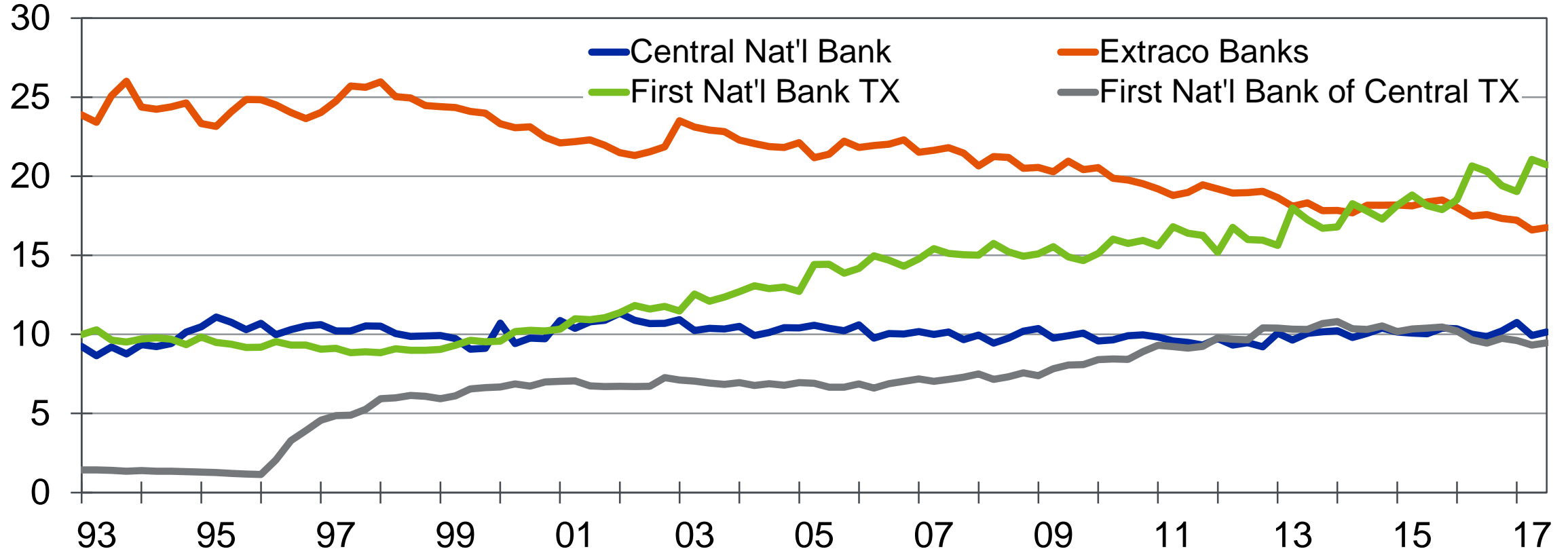
Peer Group Assets As a Share of Industry



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

FNB Texas Gaining Assets At Extraco's Expense

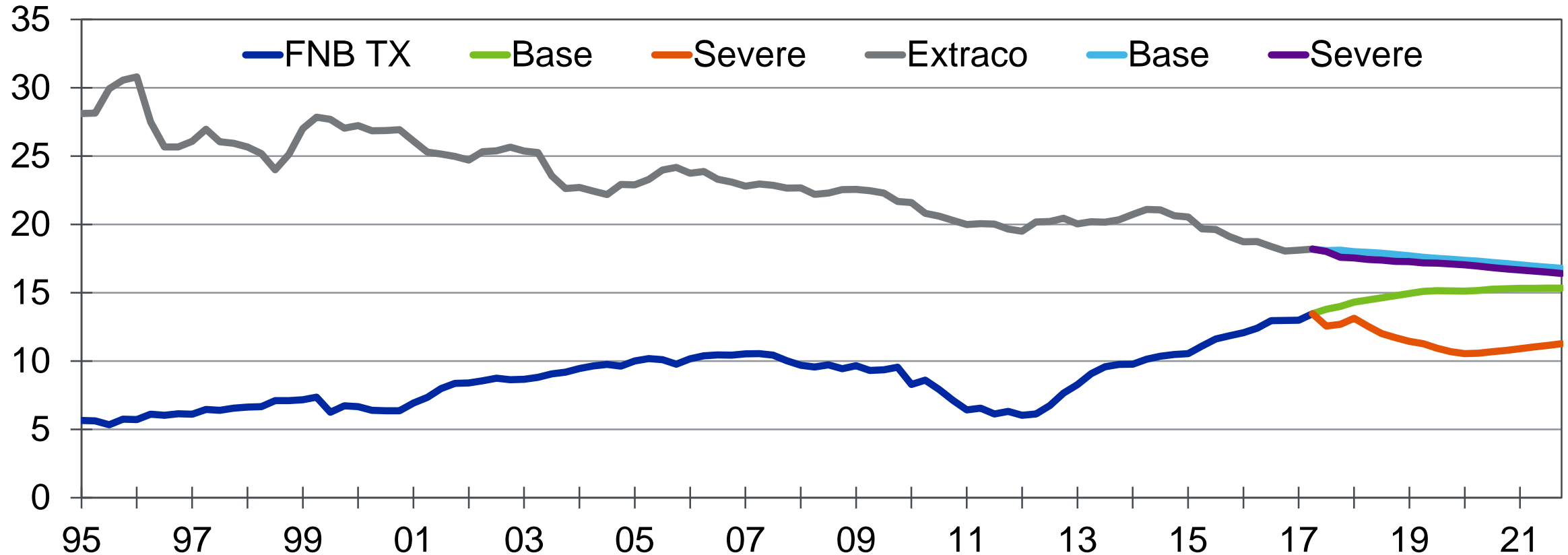
% of peer group



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

Net Loan and Lease Share Forecasts

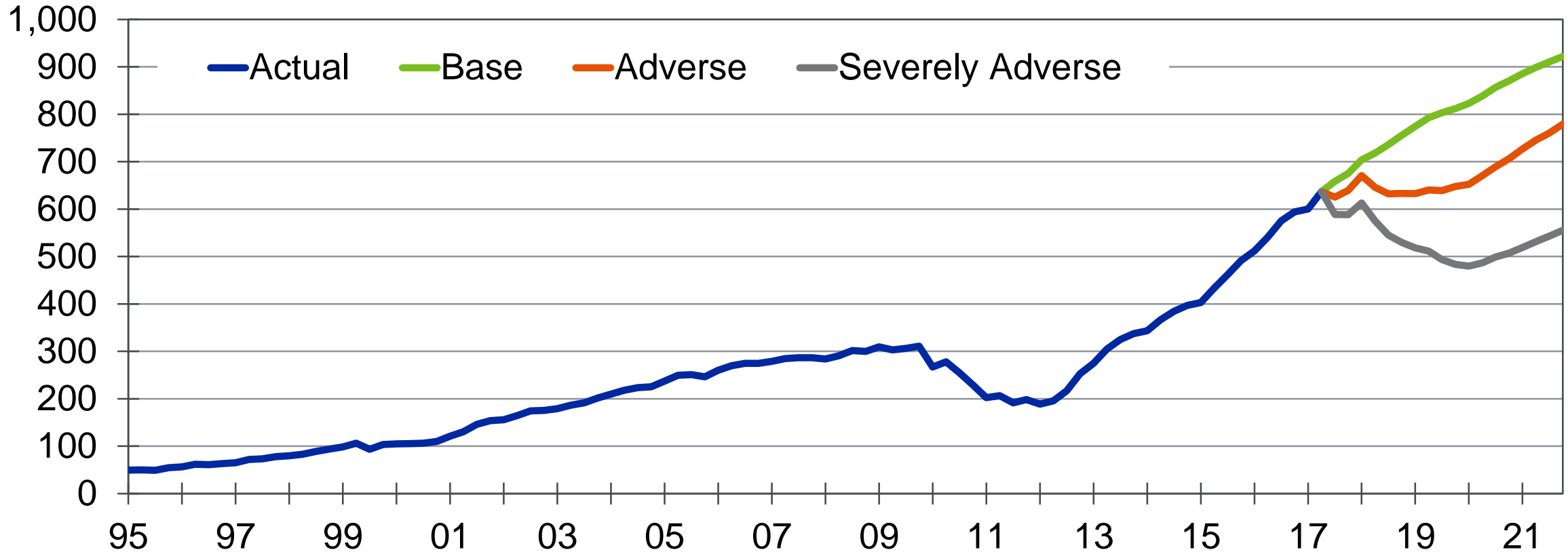
% of peer group



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

FNB Texas Net Loans and Leases Forecast

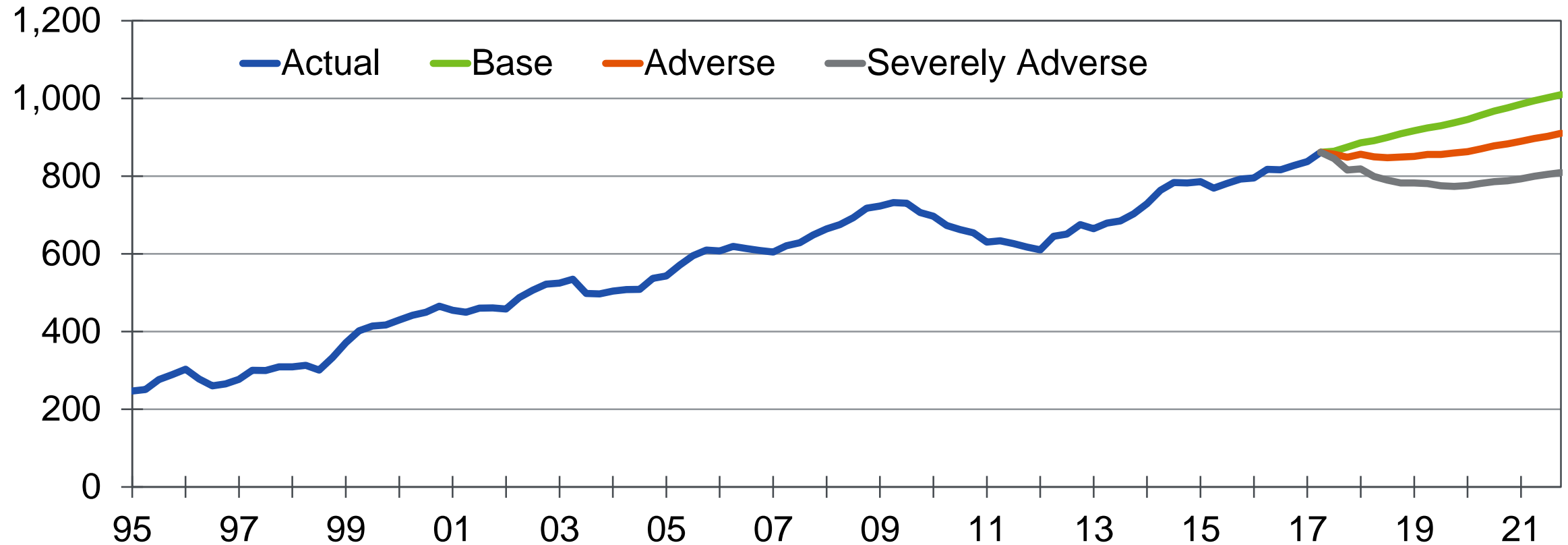
\$ mil



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

Extraco Net Loans and Leases Forecast

\$ mil



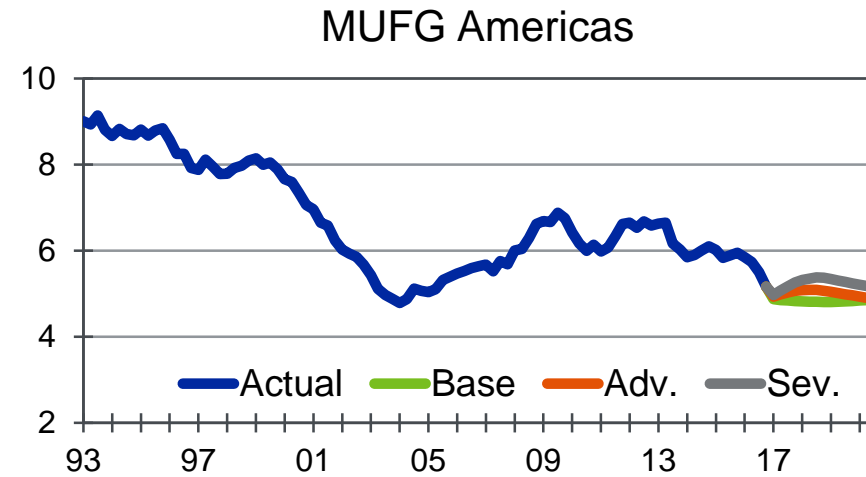
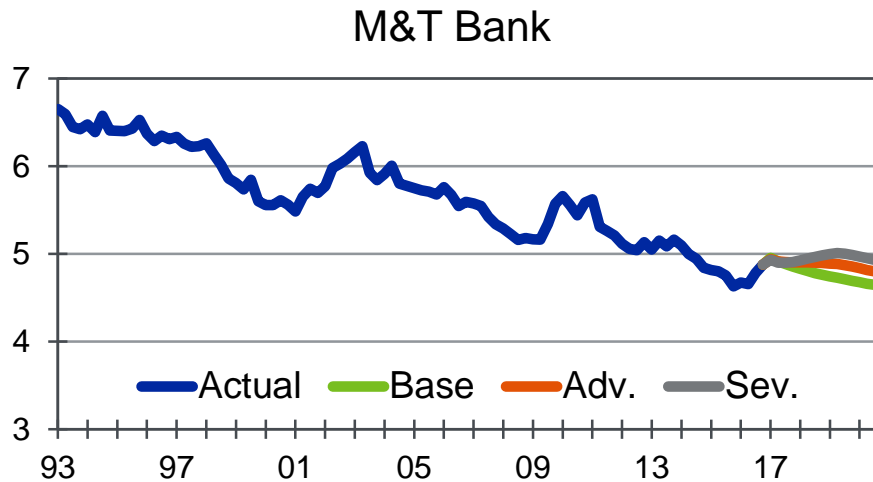
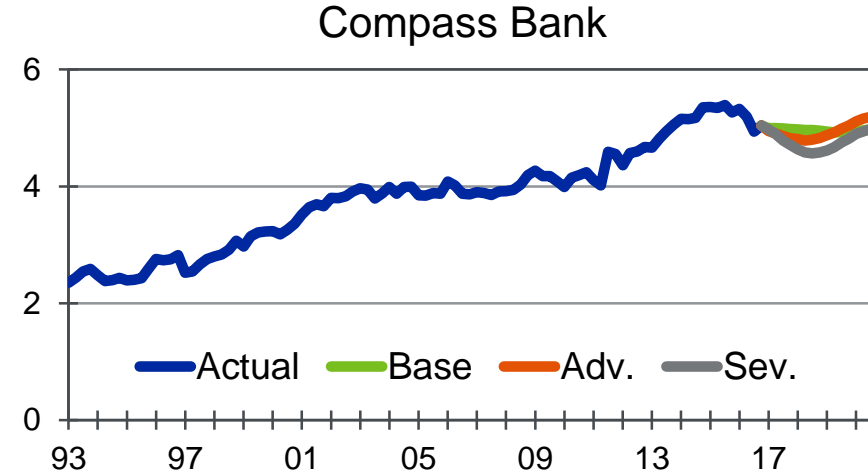
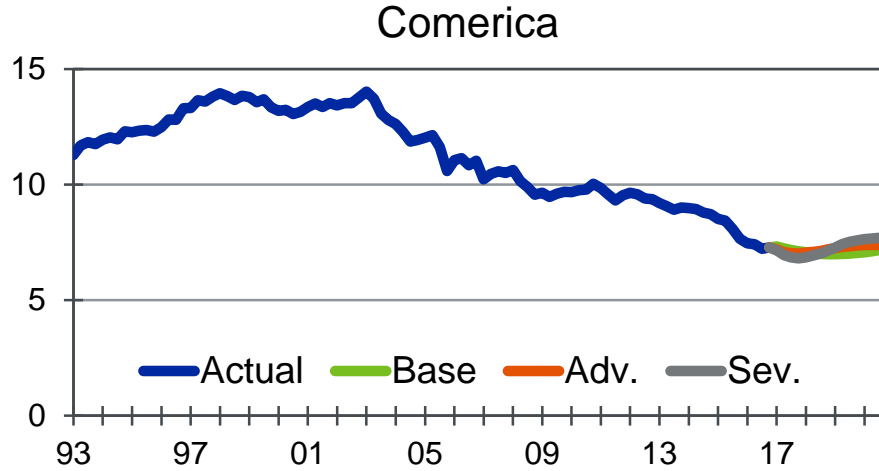
Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

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Case Study: Super-Regional CCAR Banks

C&I Lending Market Shares

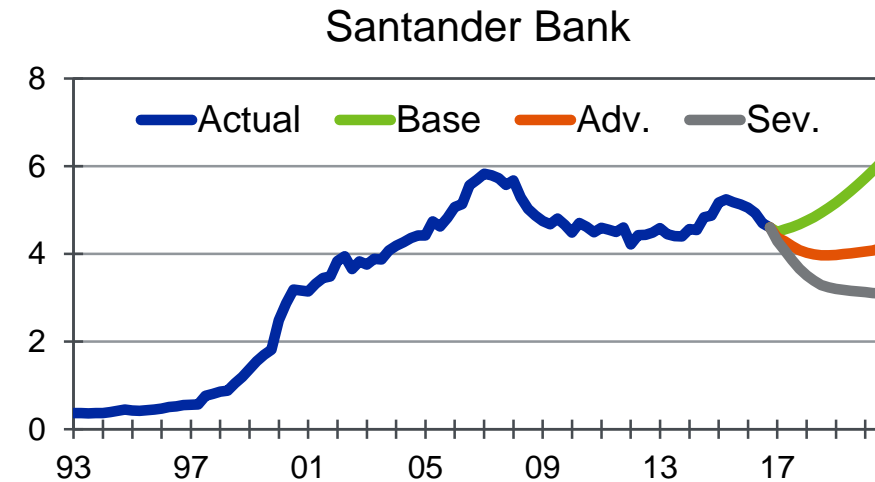
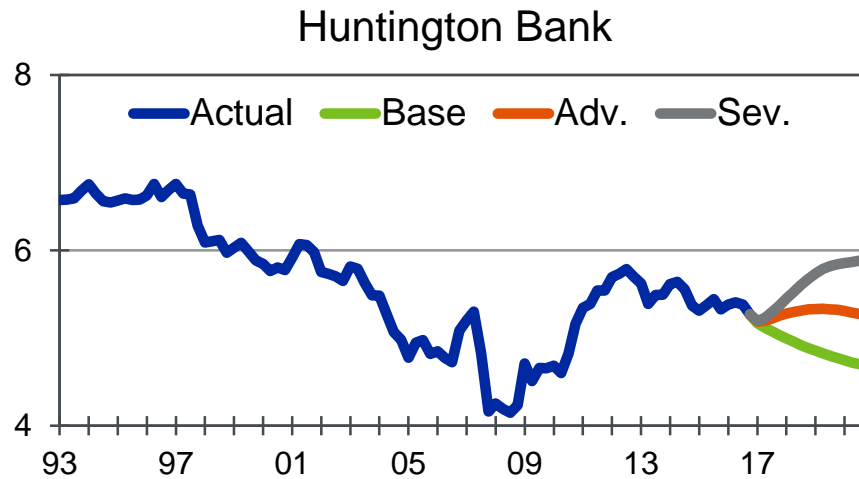
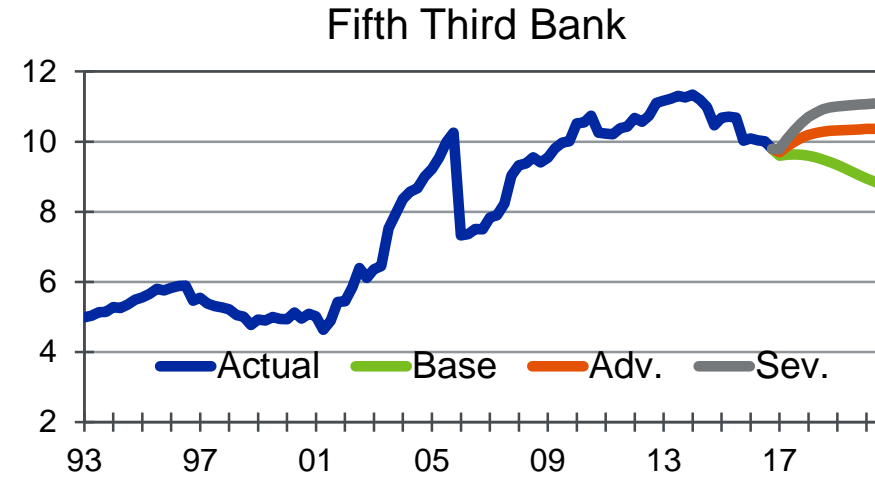
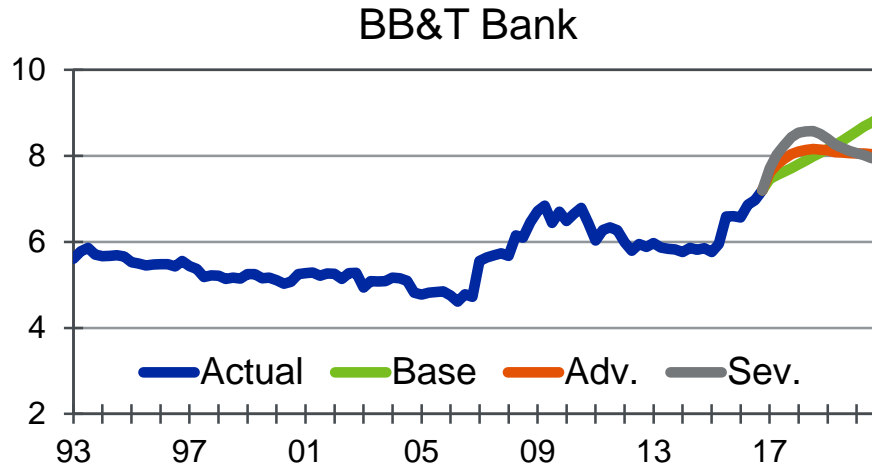
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Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

C&I Lending Market Shares

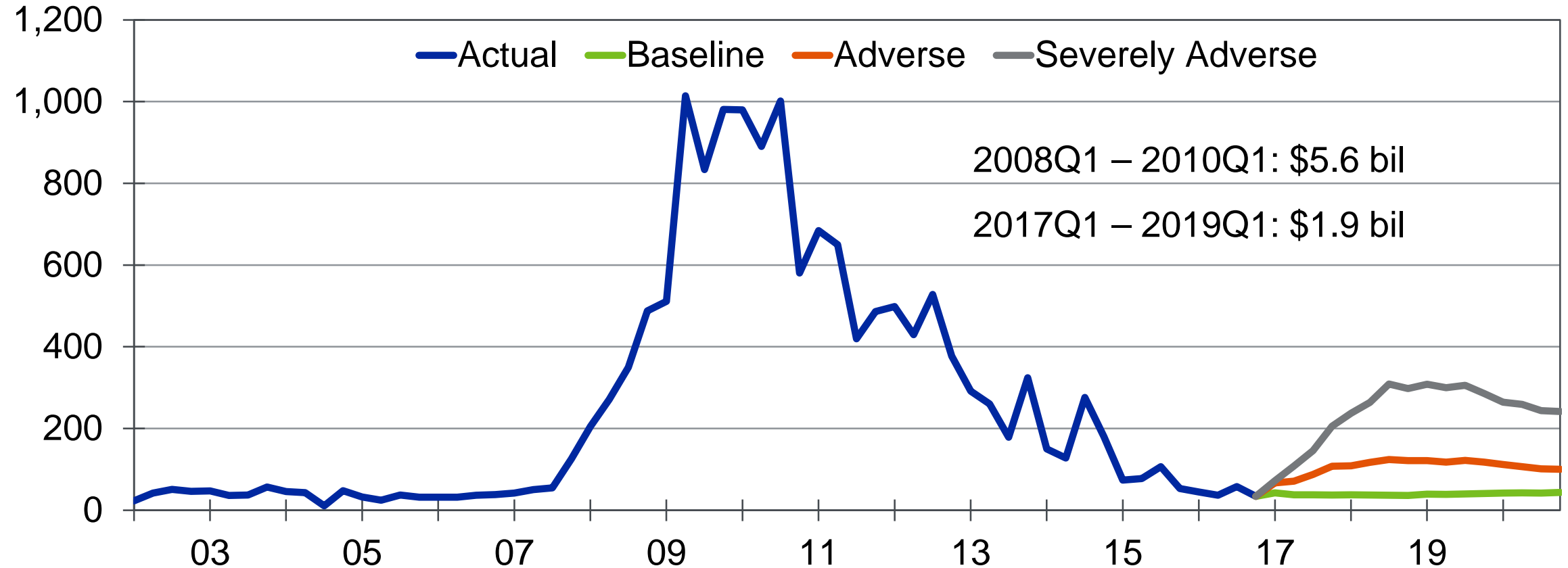
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Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

Peer Group First Mortgage Net Charge offs

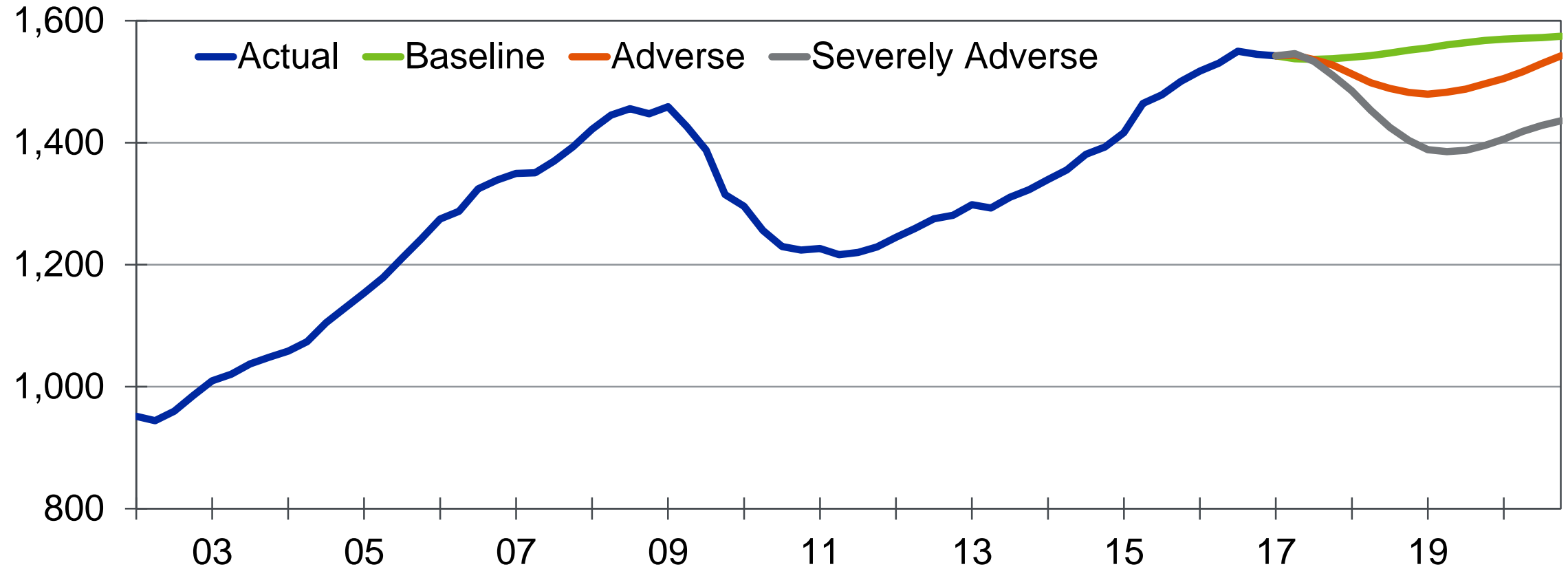
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Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

Peer Group Risk-Weighted Assets

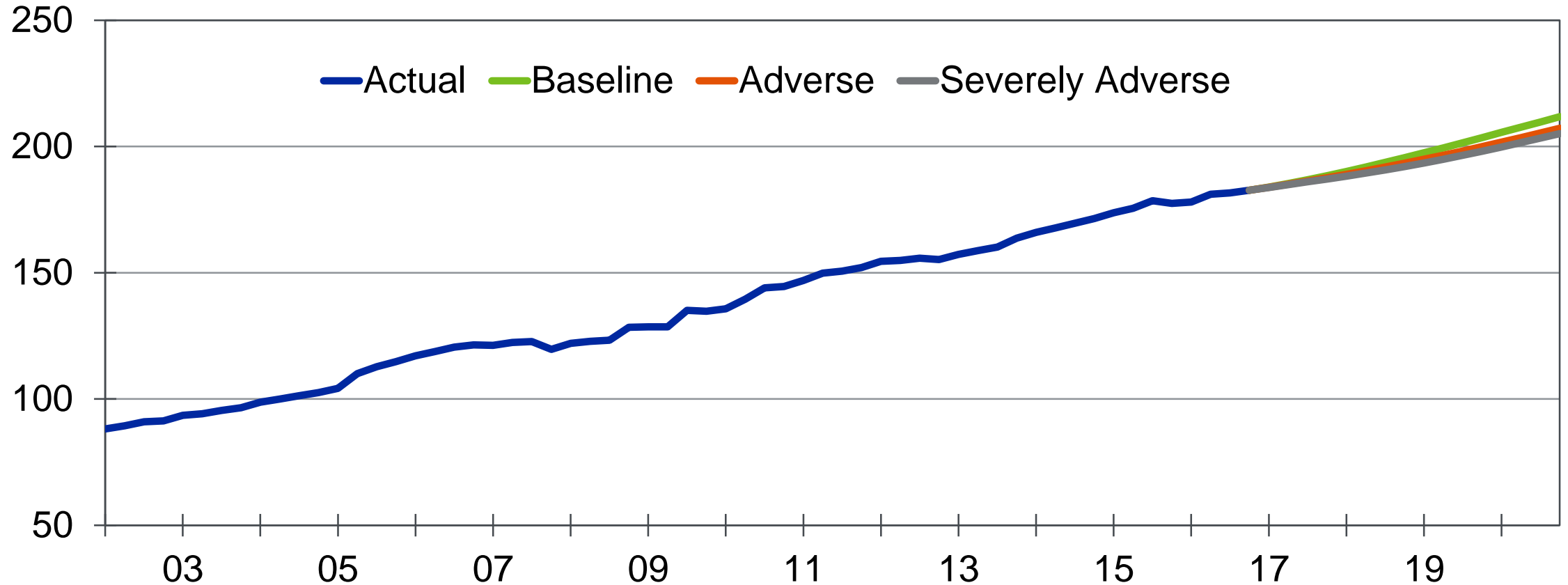
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Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

Peer Group Tier-1 Capital – Naïve Forecast

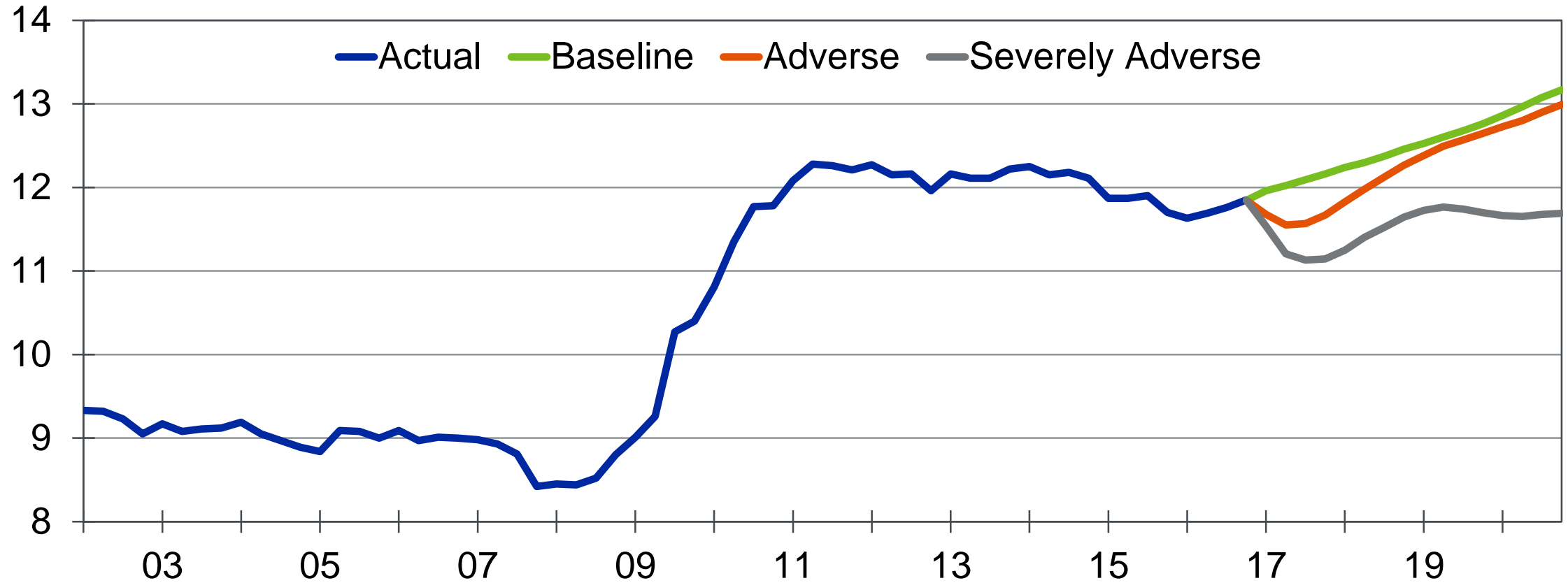
\$ bil



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

Peer Group Tier-1 Capital Ratio

%



Sources: FDIC Statistics on Depository Institutions, Moody's Analytics

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Solution & Methodological
Approach

Solution

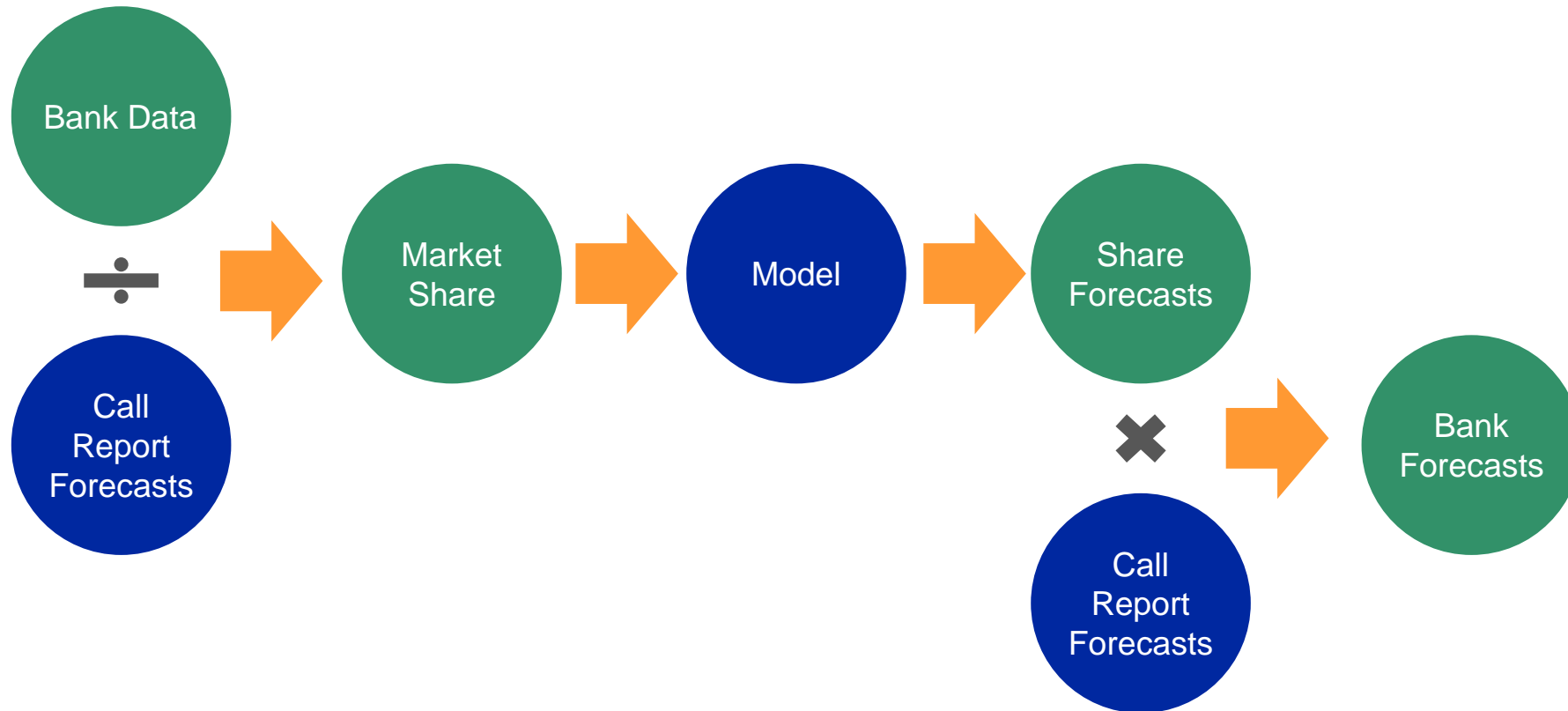
Model forecasts off of authoritative industry data

Overcomes Many Limitations

- » Model based on call report data from the FDIC going back to 1992.
- » Uses forecasts from Moody's Analytics US Macroeconomic model.
- » Eliminates internal factors such as management actions and M&A activity.
- » Documented methodology, applicable any of the 6,000 US banks.
- » Results under baseline and stress scenarios.

Modeling an Objective Forecast

Industry forecasts combined with forecasts of the bank's market share produce more accurate bank-level projections of sales and volume



Taking a Granular Approach

Emphasis on internal forecast consistency across components

Income Statements	Assets	Liabilities
<ul style="list-style-type: none">• Net interest margin• Interest income• Interest expense• Non-interest income• Non-interest expense• Chargeoffs and Recoveries	<ul style="list-style-type: none">• Total assets• Bank credit: Securities, C&I, Mortgage, Consumer• Cash• Interbank loans• Trading gains	<ul style="list-style-type: none">• Total liabilities• Deposits• Bank borrowing• Trading losses• Net due to related foreign offices

- » Ability to forecast performance for individual competitors and peer groups
- » Ability to benchmark internally derived projections for bank specific portfolios

Summary

- » Using only internal data embedded with subjective overlay may distort projections.
- » Bank-level models more realistically assess bank-specific factors affecting portfolio.
- » Industry models more accurately capture the effects of macroeconomic variables.
- » Combining the industry- and bank-level models provide consistent, comparable forecasts across banks.

Q&A

Additional questions?

Send an email to help@economy.com

Appendix

Moody's Analytics Scenarios

Reasonable and defensible forecasts

Key Features

- » **30-year horizon**, for baseline forecast plus up to **eight** alternative scenarios
- » Coverage of more than **1,800** economic, financial and demographic variables
- » Available for **60+ countries** globally
- » Forecasts updated **monthly**, history updated in **real-time**
- » **Fully documented** model methodology; scenario assumptions published monthly
- » **Model validation** reports available

MOODY'S ANALYTICS BASELINE + S1-S8



EXPANDED REGULATORY



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