Saltmarsh, Cleaveland & Gund

CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

Community Bank Executive Forum November 5, 2019

ALCO/IRR/Liquidity Update

Paul S. Allen, CPA, CGMA, Shareholder Saltmarsh, Cleaveland & Gund

Session Agenda

- Quick Update on the Banking Industry
- Perspective: Top Risks Currently
- NIM Compression most significant issue?
- Connecting the Dots Risks, ERM, Board and Audit Committee Expectations, How NIM Compression "Fits in"
- Managing the Use of Models
- Keeping Fraud Risk in View



Bank Industry Update

- Largest public banks are generally meeting or exceeding analysts' expectations, large bank stocks are performing well, a few compliance or cybersecurity bumps in the road, M&A activity picking up with a new trend of Credit Unions acquiring banks, consumer delinquencies and losses low but credit risks appear to be increasing
- Much talk about deregulation, but little actual regulatory relief yet
- Cost of funding and net margin pressure is an area of primary concern, to fund robust loan growth



Top Enterprise Risks Community Banks Face

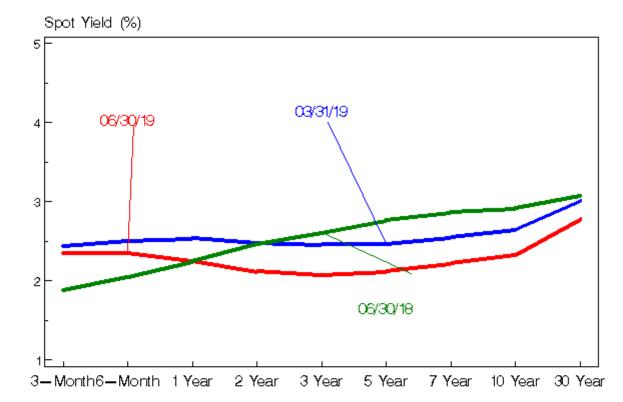
Most of these issues haven't changed much from 2018:

- Cybersecurity
- Business interruption and supply chain
- Talent management
- Crisis response
- Compliance with new regulations
- Impact of new accounting standards (particularly CECL)
- Increased use of social media (whether you want to or not....)
- Net interest margin, flat/inverted yield curve



U.S. Treasury Yield Curves

June 30, 2018 - June 30, 2019

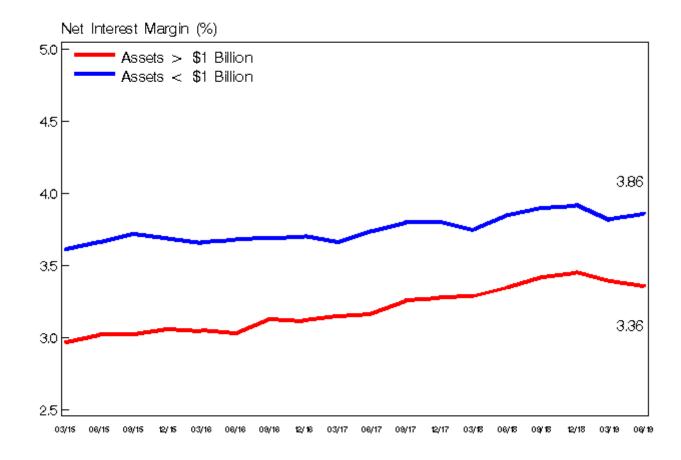


Source: Federal Reserve's H.15 Statistical Release. The quarterly average rates shown above represent a 3-month average of the monthly average rates published by the Federal Reserve.



Quarterly Net Interest Margins, Annualized

2015 - 2019

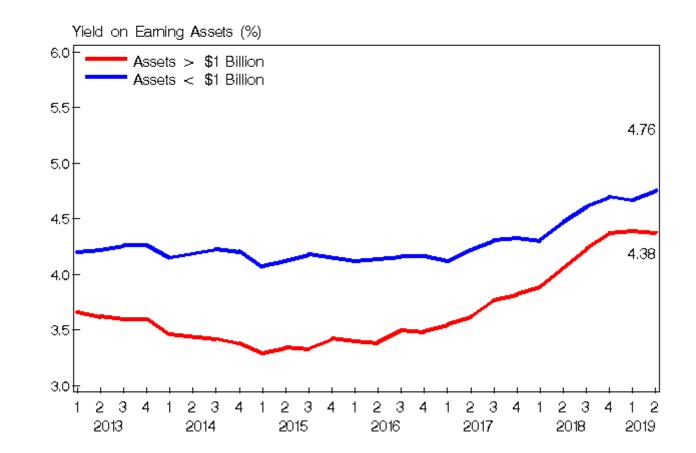




Saltmarsh, Cleaveland & Gund CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

Quarterly Yield on Earning Assets

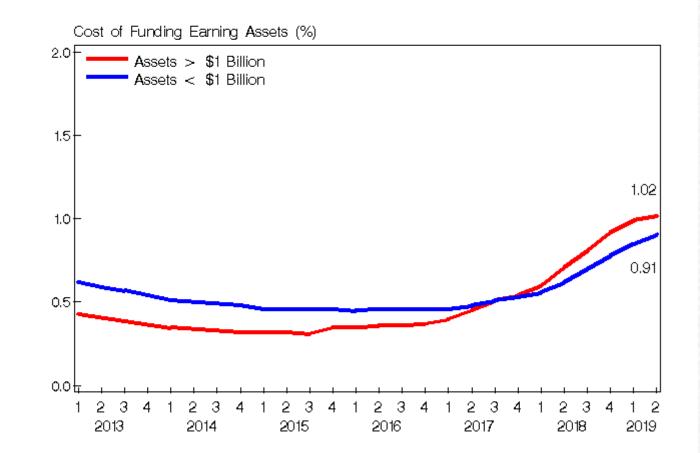
2013 - 2019





Quarterly Cost of Funding Earning Assets

2013 - 2019





Industry red flags

- Loan demand improving, but liquidity and funding is pressured, getting more expensive
- Banks turning to riskier loan types, or driving CRE Concentrations higher; regulatory and analysts concerns over credit cycle and underwriting trends
- Market rates rose through late 2018, expectations turned to Fed reducing rates in 2019 but funding costs expected to continue to rise due to competition
- Continued concerns over global economic forces and impact on long term asset yields
- Impact of implementation of major accounting standards (CECL and Leases, as well as Revenue Recognition)



Board and Audit Committee Expectations

- Management's attention and focus will likely be substantially consumed with the NIM and market interest rates during 2019 and 2020
- Examiners' focus will likely continue to be directed toward Governance/Internal Controls and Infrastructure, Concentration Risk and Cybersecurity
- The Board and Audit Committee will likely face tough Capital/Resource Allocation decisions as the NIM is squeezed, and global economic uncertainty continues
- The requirements for sound internal controls, strong infrastructure and "attention to detail" will continue, if not rise in importance



ERM Question

How much risk are we willing to accept across the entire Bank?

<u>Risk Appetite Definition</u>: The amount of risk a bank is willing to accept in pursuit of value. It reflects the bank's risk management philosophy and influences the culture and operating style. Risk appetite assists (the bank) in aligning the bank, people, and processes in creating the infrastructure necessary to effectively respond to and monitor risk.



ERM in Plain Language

- Purpose of ERM is to evaluate and consider the interplay between the various risks the Bank faces, and to consider the *overall risk profile* of the Bank
- To put into context, it is valuable to look briefly at what we've been through, and what's next, in deciding if our risk profile is appropriate, or we need to change any risk positions
- How do we expect the Bank's risk profile to change as we overlay market conditions, NIM compression, continued concern over cybersecurity, expected competition, etc.?
- What is our role as Senior Management or the Board, in managing and limiting undue risk-taking?



Increased Use of Models in Banking

- Financial forecasts and budgets
- ALM/IRR Modeling
- Liquidity Modeling
- ALLL Modeling, Preparing for CECL
- Overall Stress Testing, such as Large Bank Stress Testing for Systemically Important Institutions
- AML/BSA Modeling for Identifying Transactions
- Expectations regarding a directors' understanding and oversight of (highly technical) models



Role of Model Validation

- "Trust, but verify"
- Regulators may like your policy, recognize the vendor or model you plan to use, acknowledge the reasonableness of your key assumptions and limits, and believe that your process for identifying potential problem transactions may be comprehensive...
- But how do you get comfortable that the processing "in the black box" is actually working?



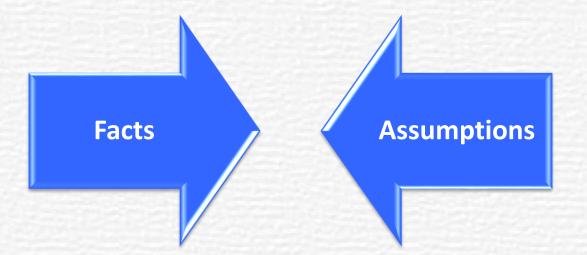
Overview of Model Validation

- Major Aspects of Model Validation
 - Data Integrity Are we getting the right data into the model?
 - Key Assumptions Integrity Are the key assumptions approved, actually being used in the model? Are they appropriate to the size and complexity of the bank?
 - Model Process Integrity Does the model actually process the data as represented? Does the "math" work?
 - Output Process is the result reasonable and in line with expectations, both in direction and magnitude? If results are compared to BOD limits, are the limits used the actual limits approved by the BOD?



Gentle Reminder...about "those assumptions"

There are Two Ingredients in *every* Risk Model:





Fact or Assumption?

• Facts?

- Assumptions?
- Contractual Facts
 - Balance
 - Rate
 - Repricing characteristics
 - Payment characteristics, etc.

- "Made up"
 - Rate scenarios
 - Non maturity deposit behavior
 - Prepayments



Fraud

- Regulatory expectation that the Board/Audit Committee will proactively consider the risk of Fraud
- Board/Audit Committee members need frequent training or a refresh on current trends and best practices in identifying fraud, and creating an appropriate control environment



FIG. 15 How does occupational fraud affect organizations in different industries?



Banking and financial services MEDIAN LOSS: \$110,000



Education MEDIAN LOSS: \$68,000



Technology MEDIAN LOSS: \$150.000







Utilities MEDIAN LOSS: \$150,000



Services (Other) MEDIAN LOSS: \$82,000



Health care MEDIAN LOSS: \$100,000



Retail



MEDIAN LOSS: \$50,000

108



MEDIAN LOSS: \$153,000



Energy MEDIAN LOSS: \$300,000

Manufacturing

MEDIAN LOSS:

\$240,000

212



Government and

public administration

MEDIAN LOSS:

\$125.000



Other MEDIAN LOSS: \$70,000





Transportation and

warehousing

MEDIAN LOSS:

\$140,000

Telecommunications MEDIAN LOSS:











Food service and hospitality MEDIAN LOSS: \$90.000





Real estate MEDIAN LOSS:

\$180,000



MEDIAN LOSS: \$110,000



Banking industry is No. 1...



\$90,000



Services (professional) MEDIAN LOSS:

\$258,000







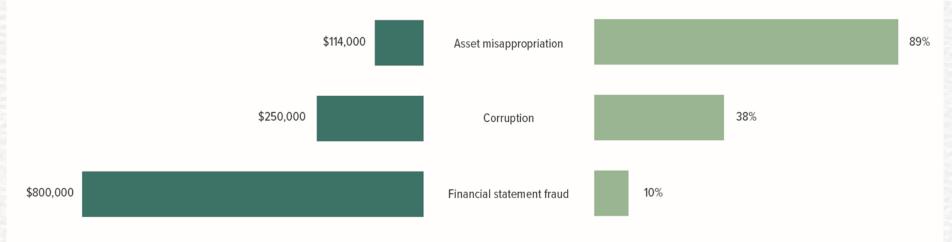
Mining

MEDIAN LOSS:

\$208,000

When you say "fraud"...what are we talking about?

FIG. 3 How is occupational fraud committed?



MEDIAN LOSS

PERCENT OF CASES



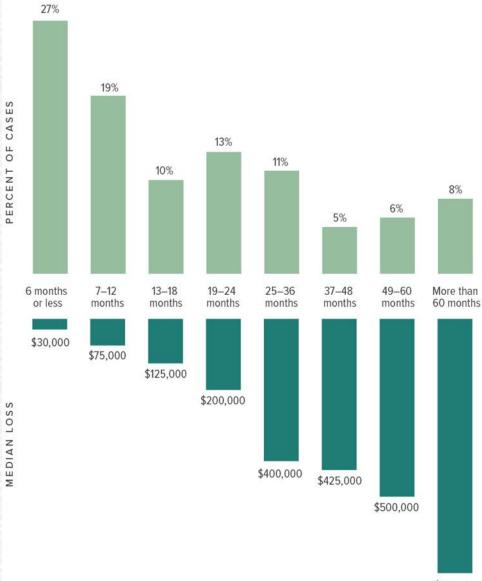


FIG. 7 How does the duration of a fraud relate to median loss?

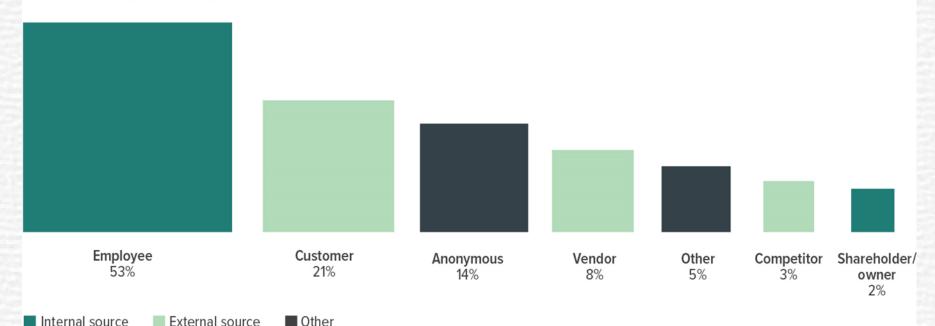
\$715,000



FIG. 9 How is occupational fraud in	itially detected?	
Тір		10%
		40%
Internal audit		
		15%
Management review		
		13%
By accident		70/
		7%
Other		6%
		0 /0
Account reconciliation		5%
		5 %
Document examination	Note importance of	4%
External audit	Tips as method of	
	· · · · · · · · · · · · · · · · · · ·	4%
Surveillance/monitoring	detectionvalue of	
	audit discussion and	3%
Notified by law enforcement	inquiry of employees	
	at various levels	2%
IT controls		
		1%
Confession		
		1%



FIG. 10 Who reports occupational fraud?

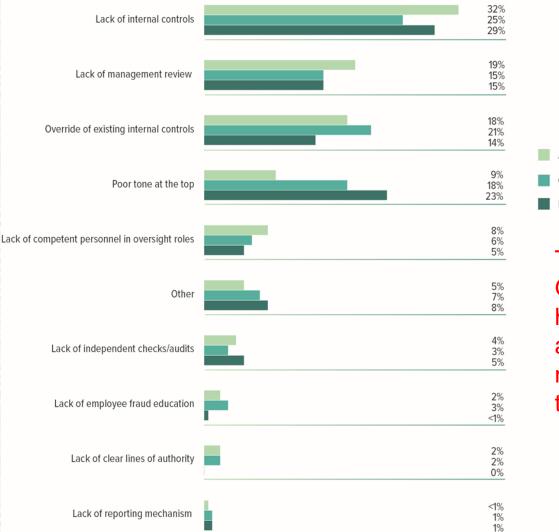


Tips are the most common source of detection, with the majority from employees...so – do we encourage communication from our employees?



Control Weaknesses, Ranked

FIG. 23 How do internal control weaknesses vary by scheme type?





Top two are basic Corporate Governance mattershaving internal controls and actually performing the management review. Next two are "culture".



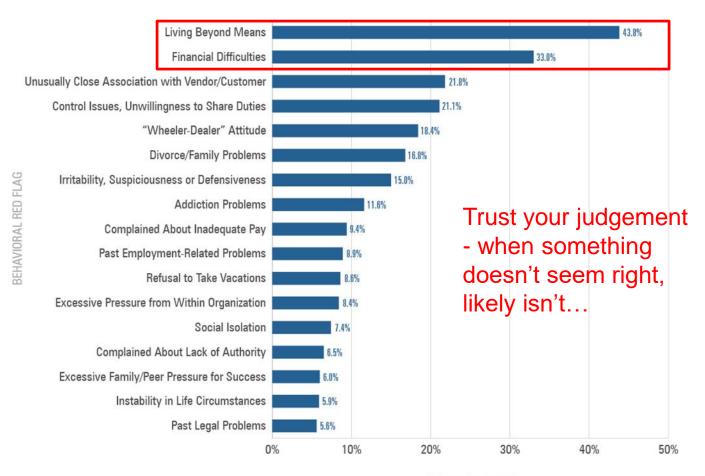


Figure 71: Behavioral Red Flags Displayed by Perpetrators

PERCENT OF CASES

© 2014 Association of Certified Fraud Examiners, Inc. All rights reserved.

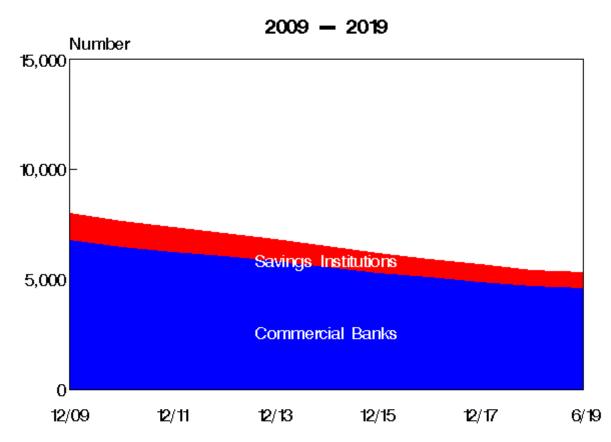
Excerpt from 2014 presentation, still applicable

Saltmarsh, Cleaveland & Gund CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

FDIC Graphs As of June 30, 2019



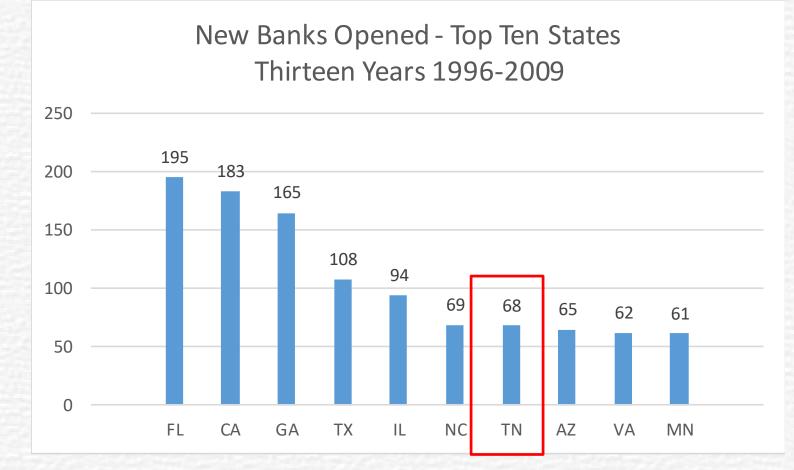








Looking back...the de novo years



Saltmarsh, Cleaveland & Gund CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

Capital Category Distribution

June 30, 2019 DIF-Member Institutions

	Institutions		Assets	
	Number of	Percent of Total	In Billions	Percent of Total
Well Capitalized Adequately Capitalized Undercapitalized Significantly Undercapitalized Critically Undercapitalized	5,287 5 5 5 1	99.7% 0.1% 0.1% 0.1% 0.0%	\$18,265.0 \$10 \$0.6 \$0.4 \$0.0	100.0% 0.0% 0.0% 0.0% 0.0%

Note: Excludes U.S. branches of foreign banks.

Practically, all peers are "well capitalized"....

Capital Category Definitions

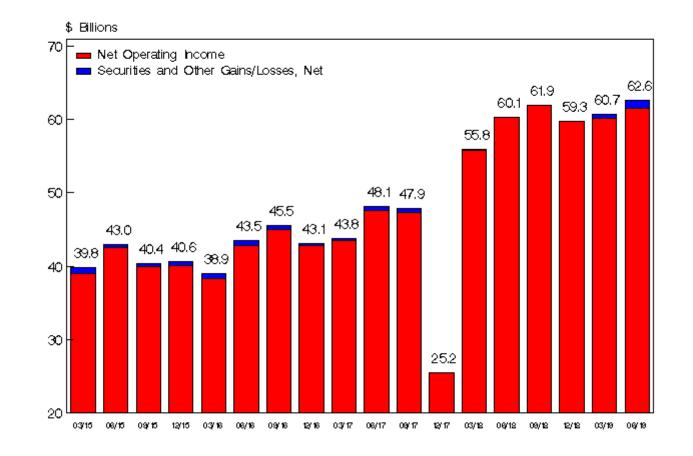
	Total	Tier 1	Common		
	Risk – Based	Risk-Based	Equity Tier :	1 Tier 1	Tangible
	Capital*	Capital*	Capital*	Leverage*	Eqŭity
Well Capitalized	> ≕ 10% a		and > = 6.5%		 _'
Adequately Capitalized	>=8% a	and >=6% a	and >=4.5%	and >=4%	
Undercapitalized	>=6% a	and >=4% a		and >=3%	
 Significantly Undercapitalized 	<6%	or <4%	or <3%	or < 3%	
Critically Undercapitalized				——	< =2%

*As a percentage of nsk-weighted assets

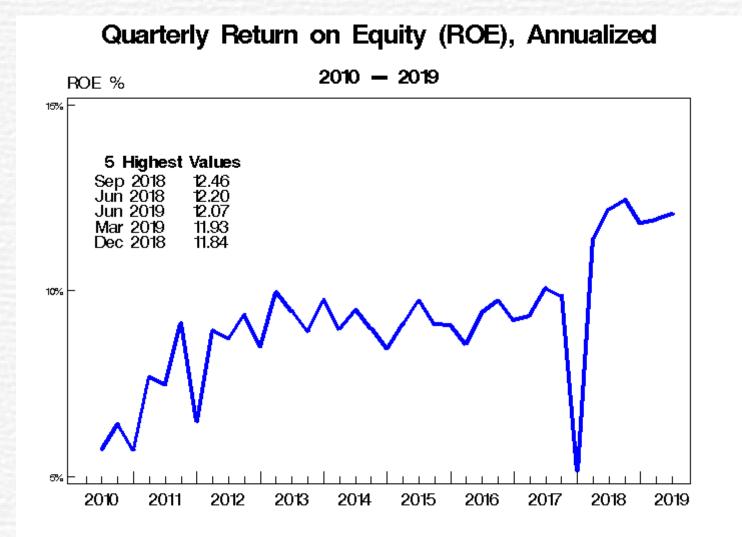


Quarterly Net Income

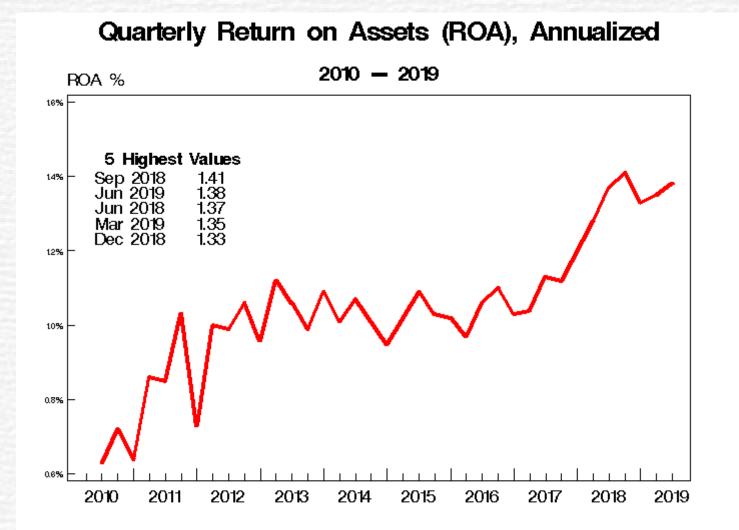
2015-2019









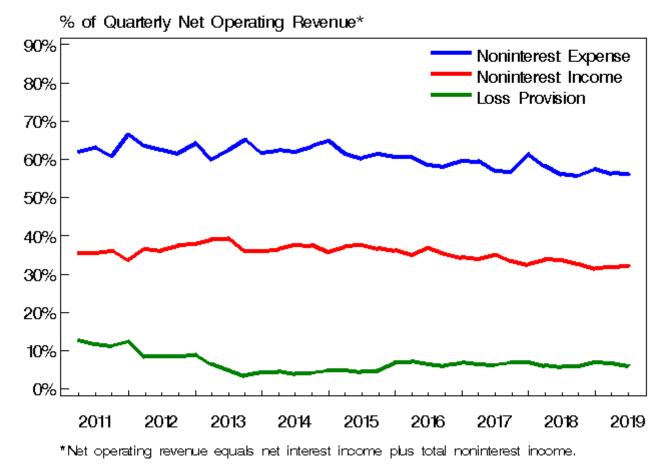




Saltmarsh, Cleaveland & Gund CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

Trends in FDIC-Insured Institutions' Income & Expenses

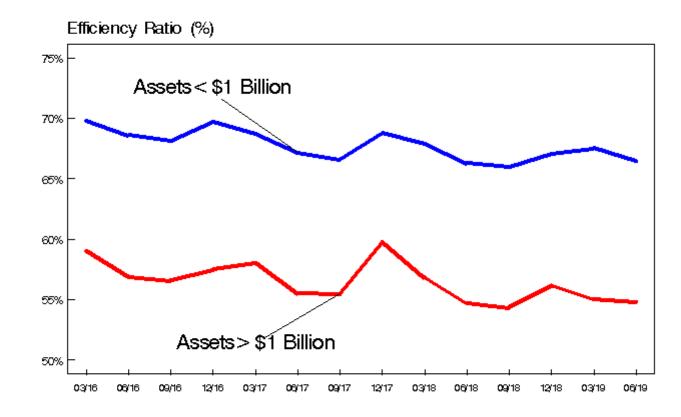
2011 - 2019



Saltmarsh, Cleaveland & Gund CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

Quarterly Efficiency Ratios*

2016 - 2019



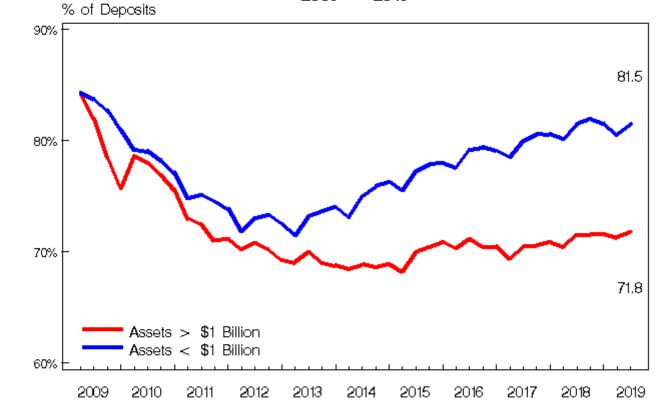
*Noninterest expenses less amortization of intancible assets as a percent of net interest income plus noninterest income.



Net Loans and Leases to Deposits



2009 - 2019



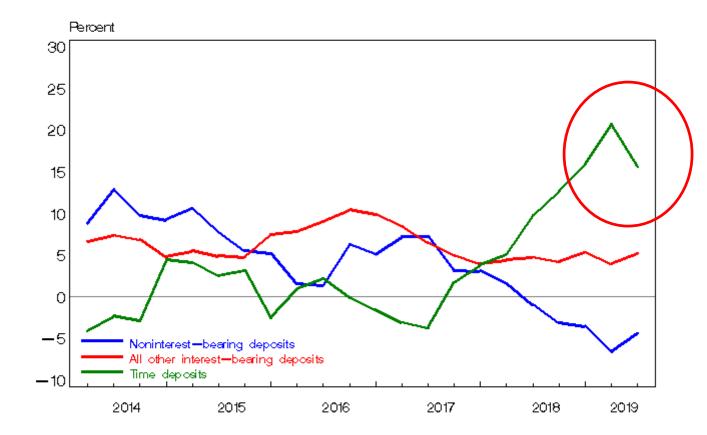


Composition of FDIC-Insured Institutions' Loan Charge-Offs Second Quarter, 2019

Credit Cards 69% Real Estate 0%) Commercial & Industrial 14% Other Consumer All Other 14% 4%

Saltmarsh, Cleaveland & Gund CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

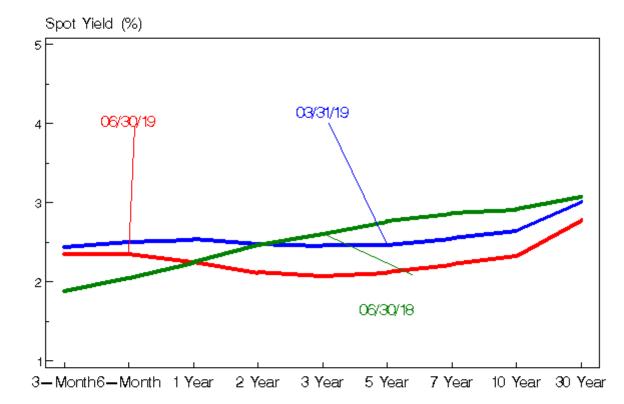
Twelve-Month Growth Rates of Domestic Deposits 2014 - 2019





U.S. Treasury Yield Curves

June 30, 2018 - June 30, 2019



Source: Federal Reserve's H.15 Statistical Release. The quarterly average rates shown above represent a 3-month average of the monthly average rates published by the Federal Reserve.



Summary

- The rest of 2019 and most of 2020 is likely to be very challenging for bankers, due to continued pressure on the net interest margin
 - Asset yields are not expected to rise near term
 - Competition for deposits is expected to remain tight
- Domestic economic conditions are good now, but "shaky"
- We appear to be nearing the end of a long, "bull" credit market will it turn down?
- Risk Profile: IRR and Liquidity Risks are trending up, how can we protect the Bank's overall Risk Profile?



Questions or Comments?



Paul S. Allen, CPA Saltmarsh, Cleaveland & Gund Phone 1-321-320-8914 Email: paul.allen@saltmarshcpa.com



Saltmarsh, Cleaveland & Gund ABOUT THE FIRM

Saltmarsh is one of the largest locally-owned CPA and business advisory firms in the Southeast, serving clients throughout the U.S. and worldwide from offices across Florida and in Nashville, Tennessee.



OFFICE LOCATIONS

5

FLORIDA Ft. Walton Beach Orlando Pensacola Tampa **TENNESSEE** Nashville

AFFILIATIONS

SALTMARSH FINANCIAL ADVISORS, LLC



THE BDO ALLIANCE USA



SERVICES OFFERED

Audit & Assurance | Business Valuation | Financial Institution Consulting | Financial Planning | Flexible Spending Plan Administration | Healthcare Consulting | Human Resources Consulting | Information Technology Consulting | Investment Management | Litigation & Dispute Advisory | Managed IT Services | Outsourced Accounting Solutions | Research & Development Tax Credits | Retirement Plan Administration | Tax Compliance & Consulting

INDUSTRIES OF FOCUS

Community Banking | Construction & Real Estate Development | Credit Unions | Hospitality | Manufacturing & Distribution | Non-Profit Organizations | Post-Acute Healthcare | Professional Employer Organizations (PEO) | Technology & Emerging Growth



