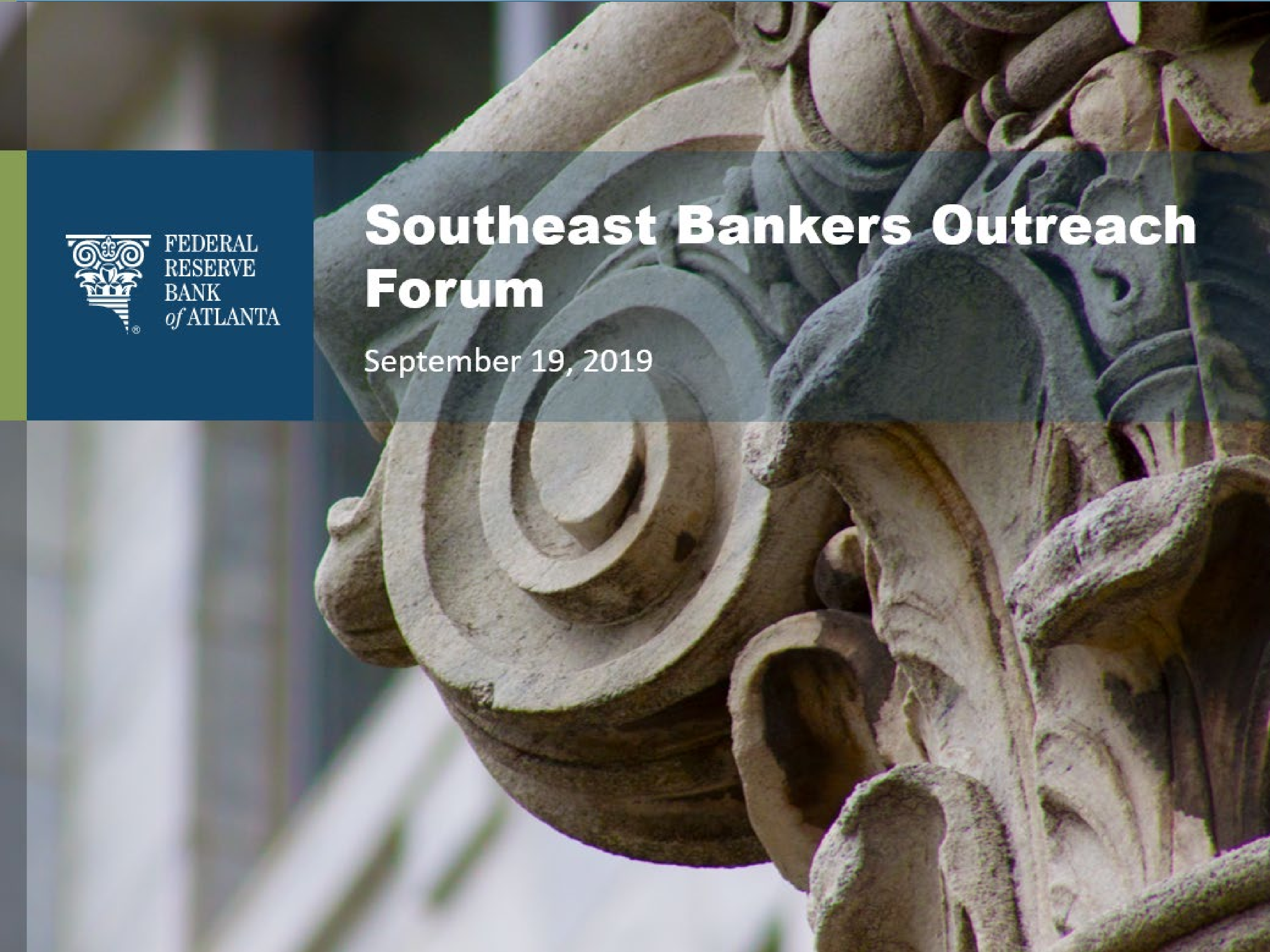


FEDERAL RESERVE BANK *of* ATLANTA

Southeast Bankers Outreach Forum

September 19, 2019

FEDERAL RESERVE BANK *of* ATLANTA

Safety & Soundness Hot Topics Panel

Presented By:

Wade Waseskuk
Derek Thompson
Tony DaSilva
Nathan Goodson
David Schwartz

FEDERAL RESERVE BANK *of* ATLANTA

Safety & Soundness Hot Topics Panel

Credit Underwriting and Risk Management

Presented By:

Wade Waseskuk

Discussion Points

FEDERAL RESERVE BANK of ATLANTA

- Five principal discussion points derived from continuous monitoring as well as exam-specific activities
  - Personal observations in conjunction with credit-oriented colleagues throughout FRB Atlanta

Discussion Points

- Underwriting and Structure
  - I/O and minimal amortization schedules
  - Covenants
    - Minimal use (even if less is more)
    - Excessive headroom
  - Secondary Sources of repayment
    - Collateral
      - Trend towards less being obtained
    - Guarantors
      - Increased cases of limited guarantees

Discussion Points

- Underwriting and Structure – cont'd
  - Guarantors – cont'd
    - – Global CF
      - » Definition and Structure
        - All parties, cash flows and contingent liabilities
          - Individuals => K-1s
          - Corporate Structures => Consolidating Statements
      - » Consistency
        - Across business lines and geographic offices
          - Ownership & Control
          - Living expenses

Discussion Points

- Current Market Conditions
  - Economic growth, population, interest rates, trade & tariffs
    - Impact on PSOR – DSCRs
    - Impact of SSOR – Collateral values
    - What is Impact on Banks' customers' customers
  - Segmentation and Concentrations
    - Sufficient segmentation to understand correlations in changing environment

Discussion Points

- Strategic Risk
  - Increase diversification
    - CRE => C&I
    - NOO => Owner occupied and elements of C&I
  - New Markets
    - Geography
    - Industry/Sector
      - Hotel, Church, Assisted Living, Oil & Gas
        - » FRB internal training increases as banks' exposure increases

Discussion Points

- CRE Concentrations
  - Concentrations have stabilized
  - Risk management practices have improved
    - Less impact on AQ CAMELS component rating and fewer supervisory findings
    - Examiners continue to be demanding of RM practices for institutions with high concentrations

Discussion Points

- Leveraged Lending
  - Increasing Volumes
    - Non-bank institutions
      - Can still be contagion impact
  - Increasing leverage
      - SNCs: higher % of cases with CF leverage > 6x
  - Internal definition is important
    - Leveraged industry exceptions should have empirical evidence
    - ABL structure without proper controls can result in “fallen angels” meeting guidance criteria

FEDERAL RESERVE BANK *of* ATLANTA

Safety & Soundness Hot Topics Panel

Market and Liquidity Risks

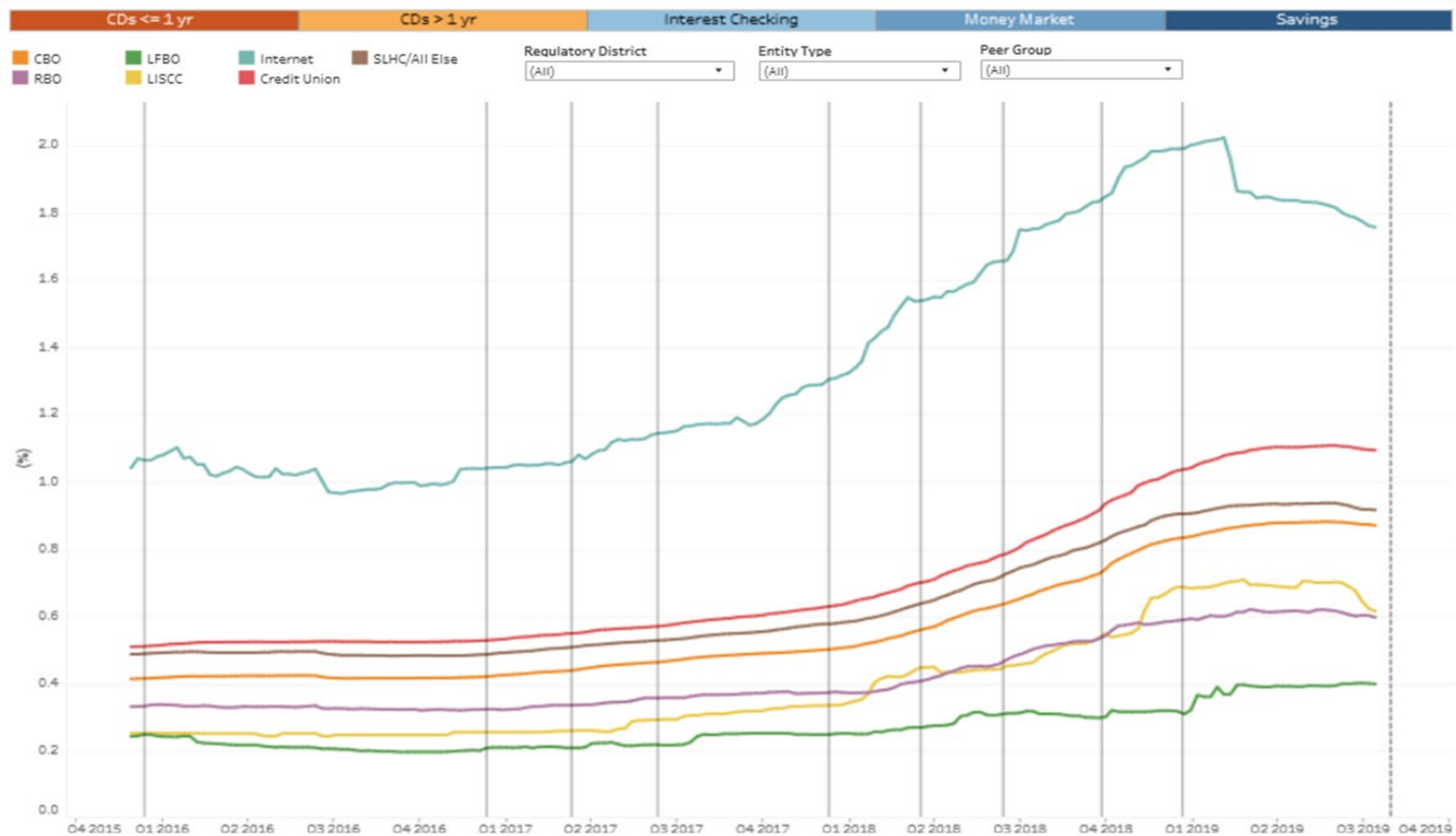
Presented By:

Derek Thompson

Deposit Interest Rate Trends

All Interest-Bearing Deposit Products*

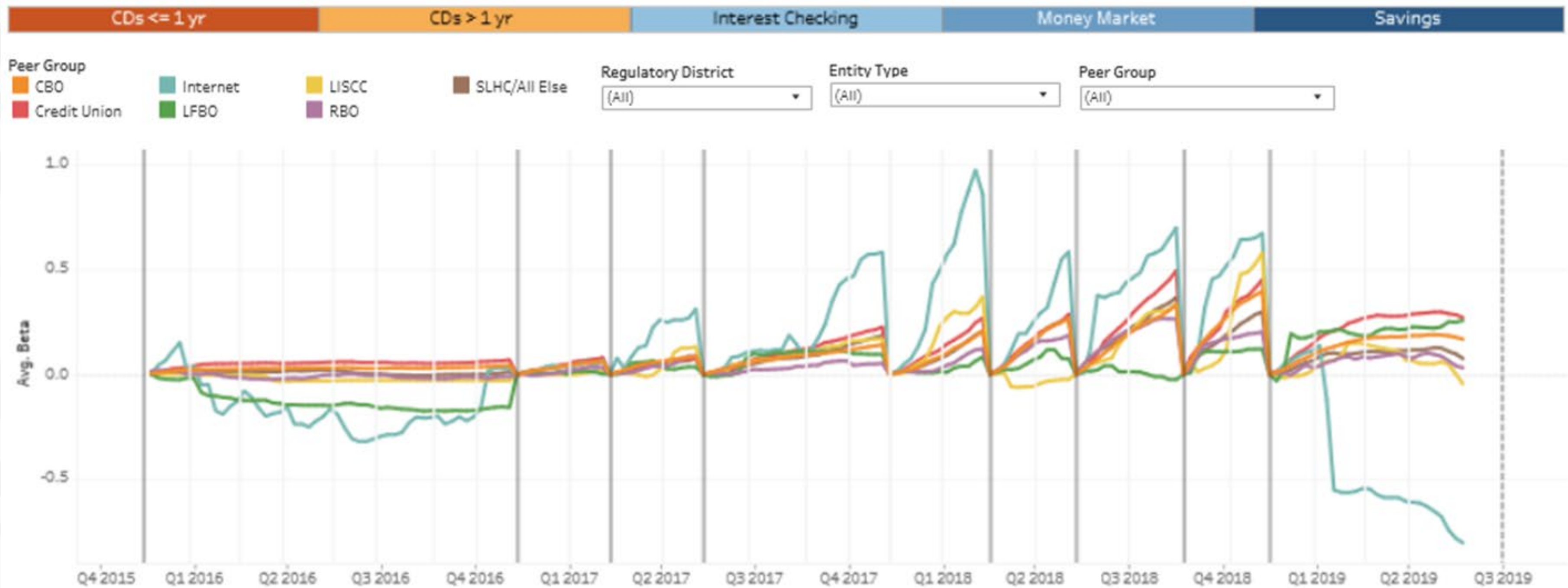
FEDERAL RESERVE BANK of ATLANTA



*All interest-bearing deposit products, excluding smaller balance accounts, such as IRAs, etc.

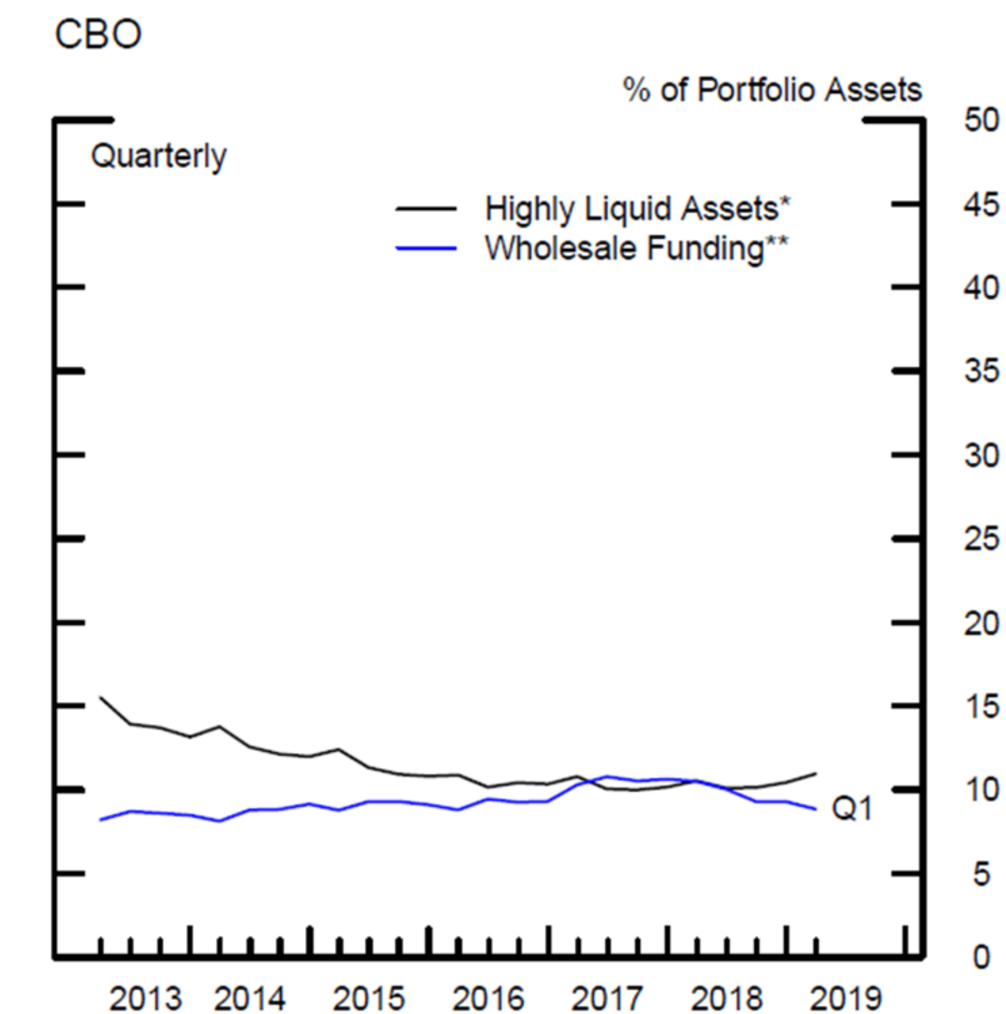
Deposit Beta by Rate Change

All Interest-Bearing Deposit Products



*All interest-bearing deposit products, excluding smaller balance accounts, such as IRAs, etc.

Highly Liquid Assets & Wholesale Funding Trend



Highly Liquid Assets (HLA) have gradually declined over the past 5-6 years, while the use of wholesale or non-core funding has increased. Recently, we see this trend reverse slightly.

Yield Curve

Does yield curve inversion signal recession ahead?

The U.S. Treasuries yield curve has been flat or inverted recently. Historically, yield curve inversion has signaled a recession in the near future. However, uncertainty remains – "Is this time different?"

Source: Bloomberg Intelligence, "Federal Reserve State of Play Topic Primer", August 2019

Key Takeaways

- Deposit competition remains in focus. After significant increases in deposit rates throughout 2018, rates have begun to level-off with the change in the rate environment.
  - Competition from firm's online or internet deposit rate offerings is more prevalent in this tightening cycle, creating a different dynamic, than in past cycles.
- High use of wholesale, non-core funding has not been a broad trend, but is focused more in certain markets or specific banks.
  - Supervisors expect more robust liquidity risk management and contingency funding planning for banks who use higher levels of potentially volatile funding.
- The yield curve is inverted, but it is unclear if this historic signal can be interpreted the same as in the past.

Transition away from LIBOR

Background

- LIBOR – the London Interbank Offered Rate – is a benchmark rate that reflects the cost of unsecured, bank-to-bank borrowings
  - US dollar LIBOR is referenced in an estimated ***$200 trillion*** in financial products including derivatives, FRNs, business loans, securitizations and consumer products
  - The financial crisis revealed weaknesses which challenged the validity of the rate
- In 2014, the Alternative Reference Rates Committee (ARRC) was convened, which recommended the Secured Overnight Financing Rate (SOFR) to replace LIBOR
- In July 2017, the UK Financial Conduct Authority stated that continued publication of LIBOR cannot be guaranteed after 2021
- Risks posed by the transition of the vast amount of contracts are multifaceted and include: market dislocations, hedging challenges, tax impacts, legal, reputational and operational risks

Transition away from LIBOR

What can firms be doing now?

- Vice Chair of Supervision Quarles has publicly stated that firms need to be more proactive in preparing for the transition away from LIBOR
- Firms should take steps to prepare for transition to alternative reference rates, including:
  - Identifying current financial exposure to LIBOR across all products, particularly those with maturities beyond 2021;
  - Reviewing contract language for these instruments to ensure understanding of fallback provisions in the event that LIBOR becomes unavailable;
  - Considering an appropriate communication strategy with various counterparties; and
  - Ensuring that newly originated contracts are tied to suitably robust reference rates and/or contain clear fallback language

For more information, please read "The Transition Away from the London Interbank Offered Rate (LIBOR)*" at https://communitybankingconnections.org/.

FEDERAL RESERVE BANK of ATLANTA

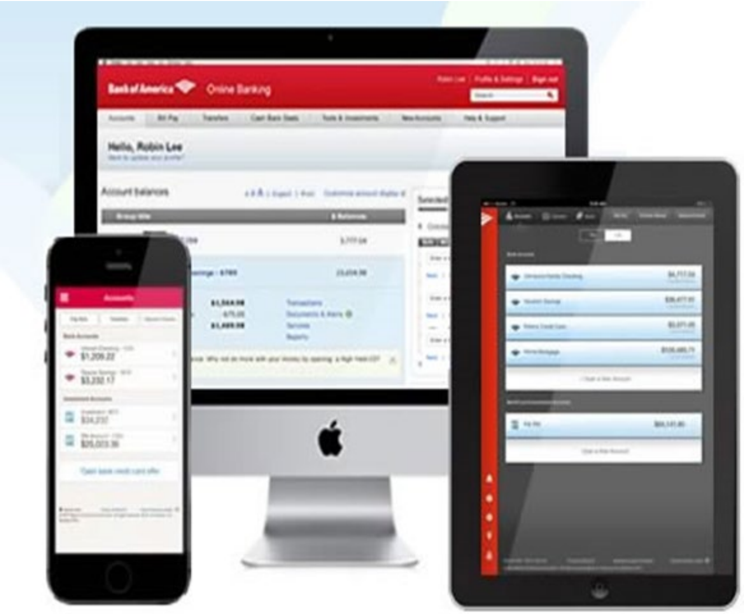
Safety & Soundness Hot Topics Panel

Payments Fraud Observations & Trends

Presented By:
Tony DaSilva, AAP, CISA

Electronic Banking

- Account Activity
- Internal Transfers
- Bill Pay
- RDC
- ACH
- Wire Transfer
- External Transfers
- Mobile Payments
- New Accounts
- Artificial Intelligence



OPPORTUNITY !

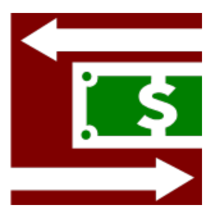
Cybercrime & Payments

Cybercrime is a well-funded, organized business with sophisticated technology. It is driven by a powerful combination of actors ranging from organized crime, nation states, and decentralized cyber gangs. They executed recent massive credit card and identity data breaches, using this data to profit from all types of fraud—card not present, account takeover, and new account creation–across all businesses across all regions.

Trends

Payments Cybercrime

ACH & Wire Transfers

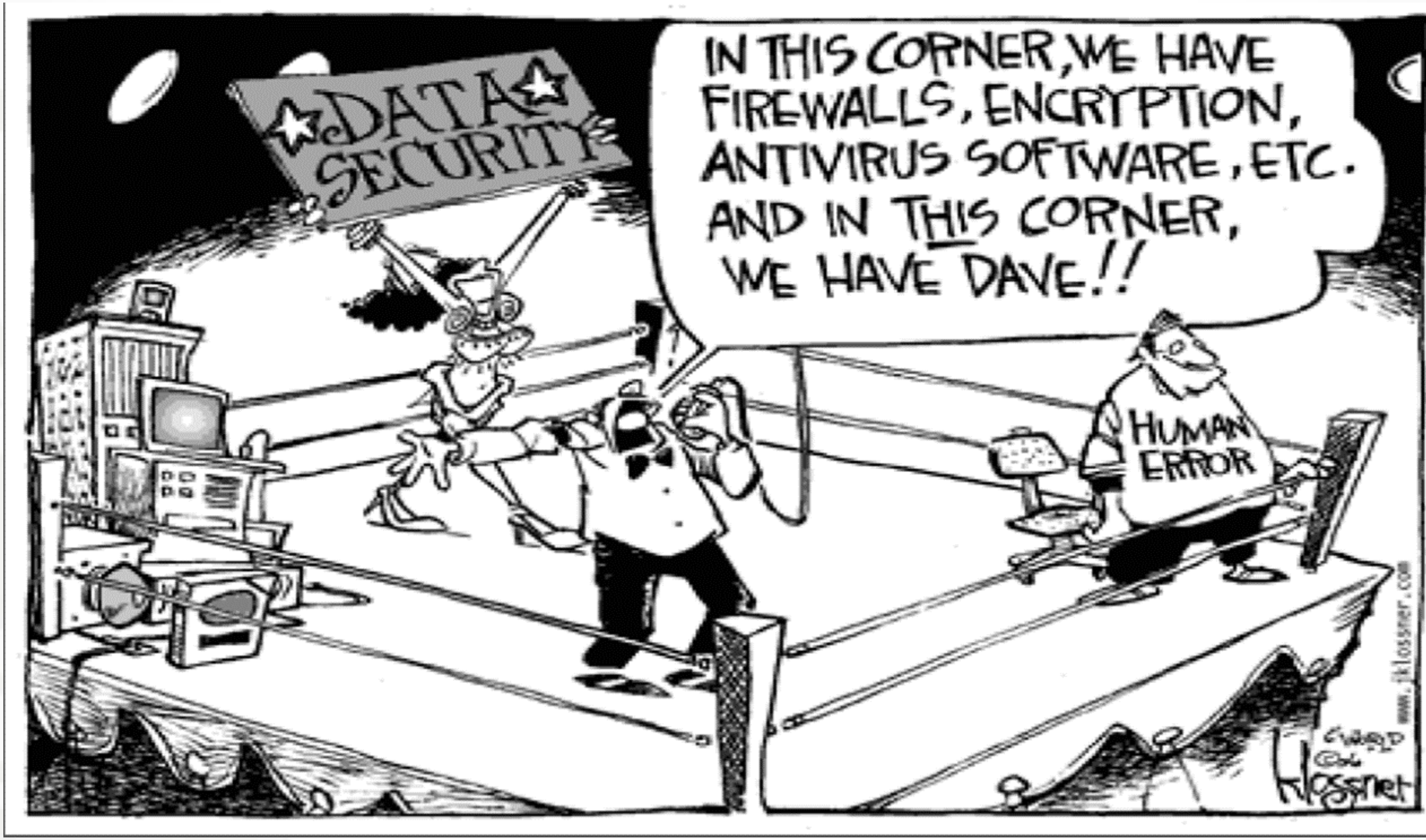


How do Cyber Criminals Gain Access

- Deception via DDoS
- Spam
- Phishing attempts
- Spoofed web pages
- Popup ads and warnings
- Malware (Trojans, worms, etc.)
- Theft (laptops, thumb drives, etc.)
- Email attachments
- Downloads
- Social mediums

People the Weak Link

- Whether they come from email, the web, social media, or mobile apps, today's cyber attacks have one thing in common—they all target people.
- Cyber criminals have shifted tactics. Rather than relying solely on technical exploits, today's attacks fool humans into becoming unwitting accomplices, infecting systems, stealing credentials, and transferring funds.
- Email threats continue to plague organizations around the world, but when thinking about your defense, it's critical not to focus on malware alone. It's phishing that actually makes up the majority of threats targeting both organizations and consumers.


DATA SECURITY
IN THIS CORNER, WE HAVE FIREWALLS, ENCRYPTION, ANTIVIRUS SOFTWARE, ETC. AND IN THIS CORNER, WE HAVE DAVE!!
HUMAN ERROR
www.rklossner.com
Klossner

War Stories

FEDERAL RESERVE BANK *of* ATLANTA

- DDoS and a Wire Transfer
- Board Member Wire Transfer
- Wire Transfer Specialists Compromise
- Business Account Takeovers
- Business email Compromise

ATTACHMENTS

Specific Practices to Mitigate Risks

- To mitigate some of the risk of fraudulent transactions, bank management should consider the following risk management practices:
- Assess risks and implement technologies that address current threats (many strong authentication technologies have been compromised)
- Deploy robust, multi-factor authentication;
- Use out-of band authentication methods (i.e., call backs, text messages) to documented contacts;
- Implement layered security (defense-in-depth) for high-risk transactions;
- Ensure centralized fraud detection systems facilitate monitoring across payment channels (i.e., ACH transactions, wire transfers, cards, checks, ATM transactions);
- Review security provisions in customer agreements (agreement alone may not alleviate bank from liability);
- Implement procedures for monitoring new and existing accounts (for new accounts, monitor for ACH credits “money mule activity”);

Specific Practices to Mitigate Risks

- Disallow ACH debits unless specifically approved by customer;
- Regularly review ACH customer exposure limits (be aware that LOCs may increase potential funds accessible to criminals);
- Consider having the ACH Operator implement a threshold amount for origination;
- Implement transaction risk profiling;
- Monitor debit transaction returns including bill payment accounts;
- Implement third-party service provider governance and due diligence;
- Provide customers with robust account activity monitoring/ alerting tools; and
- Focus on strong customer education regarding information security management requirements and monitoring practices.

Specific Practices to Mitigate Risks

FEDERAL RESERVE BANK *of* ATLANTA

- Some points for banks to consider emphasizing in customer education include:
- Use of a single purpose, stand-alone computer for Internet banking (no email/web surfing/downloading);
- Monitor accounts daily for unusual activity – notify FI immediately of any errors;
- Implement dual controls and separation of duties;
- Maintain up-to-date anti-virus, spyware and firewall protection;
- Use the strongest form of authentication provided by the bank; and,
- Apply security patches quickly, consistently and comprehensively.

FEDERAL RESERVE BANK of ATLANTA

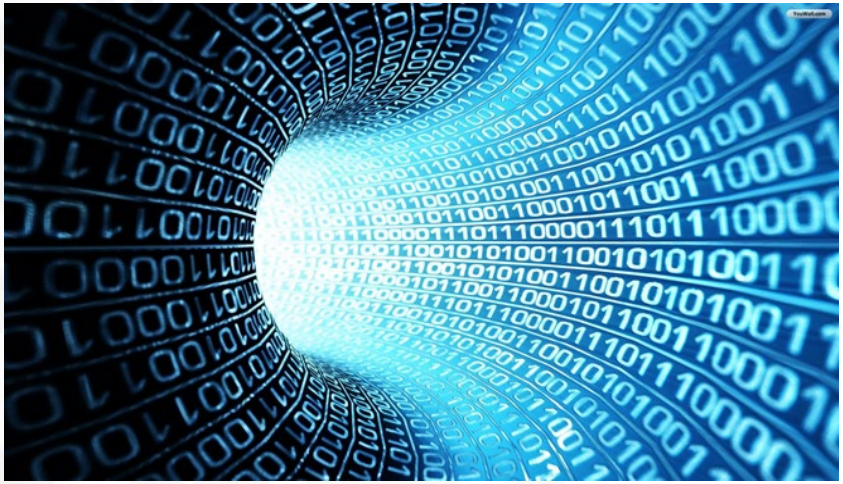
Safety & Soundness Hot Topics Panel

IT and Cybersecurity

Presented By:

Nathan Goodson

Agenda



1| Cybersecurity

2| Vendor Management

3| IT Evolution

– Cloud

– FinTech

Cybersecurity

FEDERAL RESERVE BANK of ATLANTA

OCC Semiannual Risk Perspective Spring 2019

- Cyber threats continue to increase and evolve
- Social engineering primary method for targeting banks
- User awareness training and testing are essential
- The use of unpatched and unsupported software / hardware remain a common vulnerability
- Continue due diligence and oversight of third parties

Significant Financial Data Breaches

Capital One – 2019
Equifax – 2017
JPMorgan Chase – 2014
Heartland Payment Systems – 2009
Cardsystems Solutions – 2005

Cybersecurity

Exam Focus Areas

FEDERAL RESERVE BANK of ATLANTA

Understanding Cybersecurity Risks

- Board and management oversight
- Cybersecurity assessment framework
- Resources and training

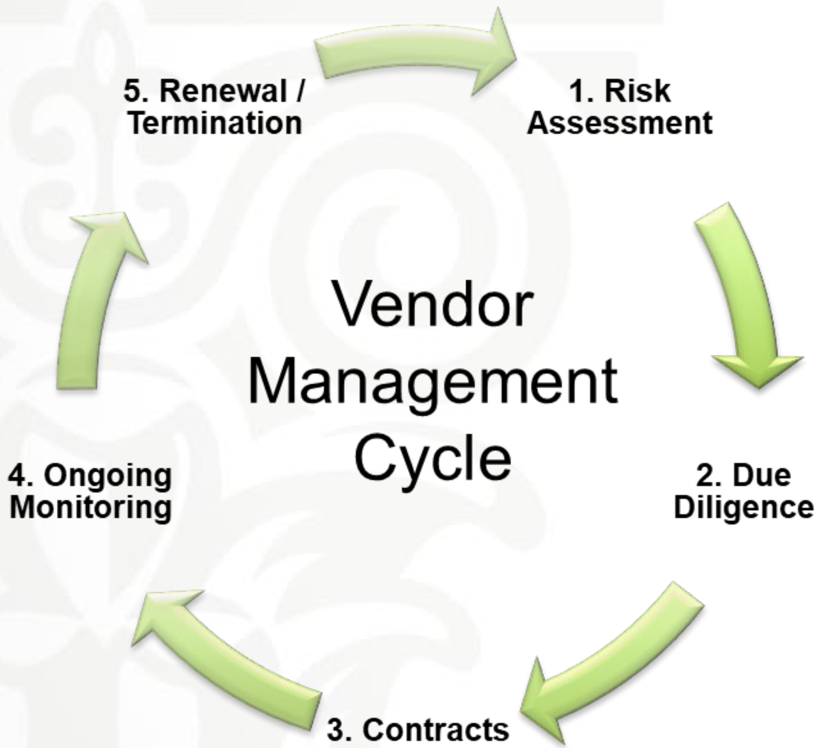
Detecting and Protecting

- Threat intelligence and monitoring
- Information security program
- Access management / patch management / change management
- Perimeter and internal defenses

Resilience

- DR/BCP and incident response plans designed to respond to and recover from cyber-related incidents
- Periodic testing performed to validate assumptions and strategies

Vendor Management



Key Thoughts

- The degree of risk and complexity of vendor relationships should drive the other steps in the cycle
- Policies and procedures need to evolve and be executed by the right resources

Vendor Management Guidance

- OCC: Bulletin 2013-29, Third-Party Relationships
- FRB: SR Letter 13-19, Guidance on Managing Outsourcing Risk
- FDIC: FIL 19-2019, FIL 15-2018, FIL 13-2014, FIL 46-2012, FIL 44-2008, FIL 52-2006, FIL 50-2001

Vendor Management

Exam Focus Areas

Risk Assessment	• Defined risk assessment methodology • Risk rating of vendors (ex. high, medium, or low)
Due Diligence	• Alignment of due diligence efforts with assigned vendor risk level • Board and management involvement
Contracts	• Contract guidelines and requirements • Contract review performed by qualified resources
Ongoing Monitoring	• Ongoing monitoring requirements based on vendor risk ratings • Documentation and reporting of ongoing monitoring efforts
Renewal / Termination	• Contract renewal requirements • Exit strategies for significant vendor relationships

IT Evolution - Cloud

FEDERAL RESERVE BANK of ATLANTA

Evolution of the IT environment

- Core with green screens
- Core with individual PCs and a basic file sharing network not connected to the internet
- Core with individual PCs, multiple physical servers, and internet connectivity
- Core with individual PCs / thin clients, virtual servers, and real-time data replication

Adoption of cloud-based solutions are expected to increase and will continue the transformation of the IT environment

Cloud Benefits	Cloud Risks
Cost Savings	Data Security
Availability / Efficiency	Vendor
Scalability	Technology / Operational

Key Programs to Manage Cloud Risks

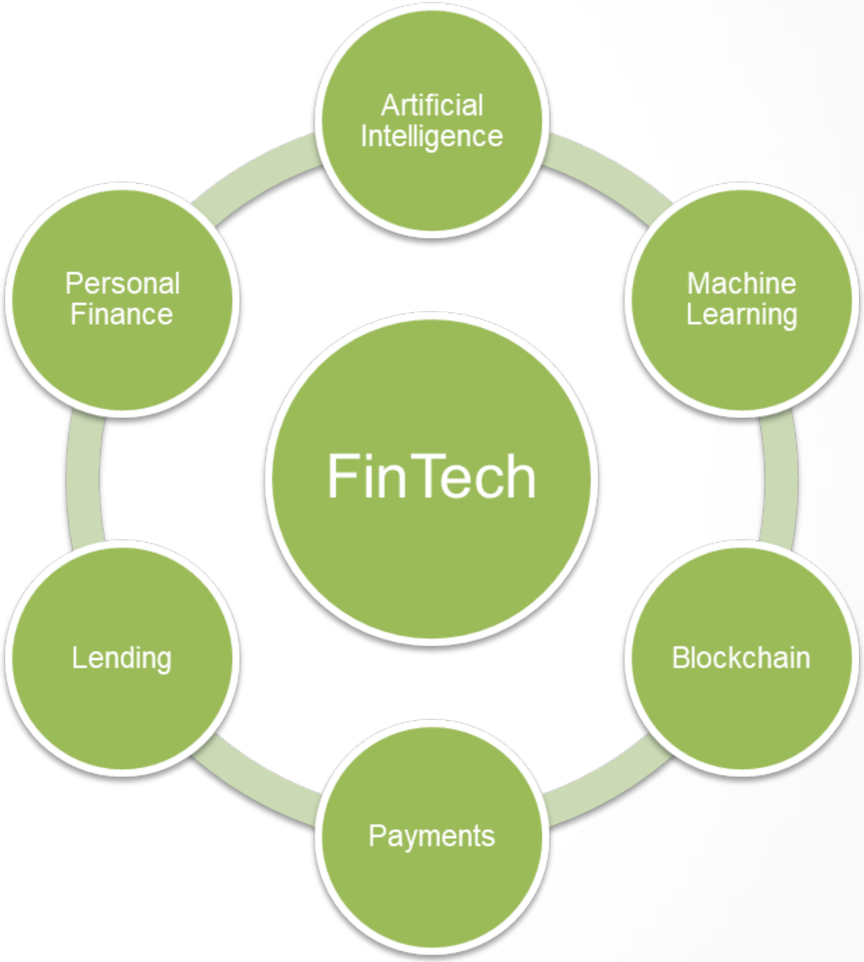
Vendor Management	Information Security
Compliance	BCP/DR
Cybersecurity	Configuration

IT Evolution - FinTech

FEDERAL RESERVE BANK *of* ATLANTA

FinTech strategies should align with IT / corporate strategic plans

- Major Risks:
  - Operational
  - BSA/AML
  - Reputational
  - TPRM
  - Compliance
  - Model Risk Management



FEDERAL RESERVE BANK *of* ATLANTA

Safety & Soundness Hot Topics Panel

Current Expected Credit Losses (CECL)

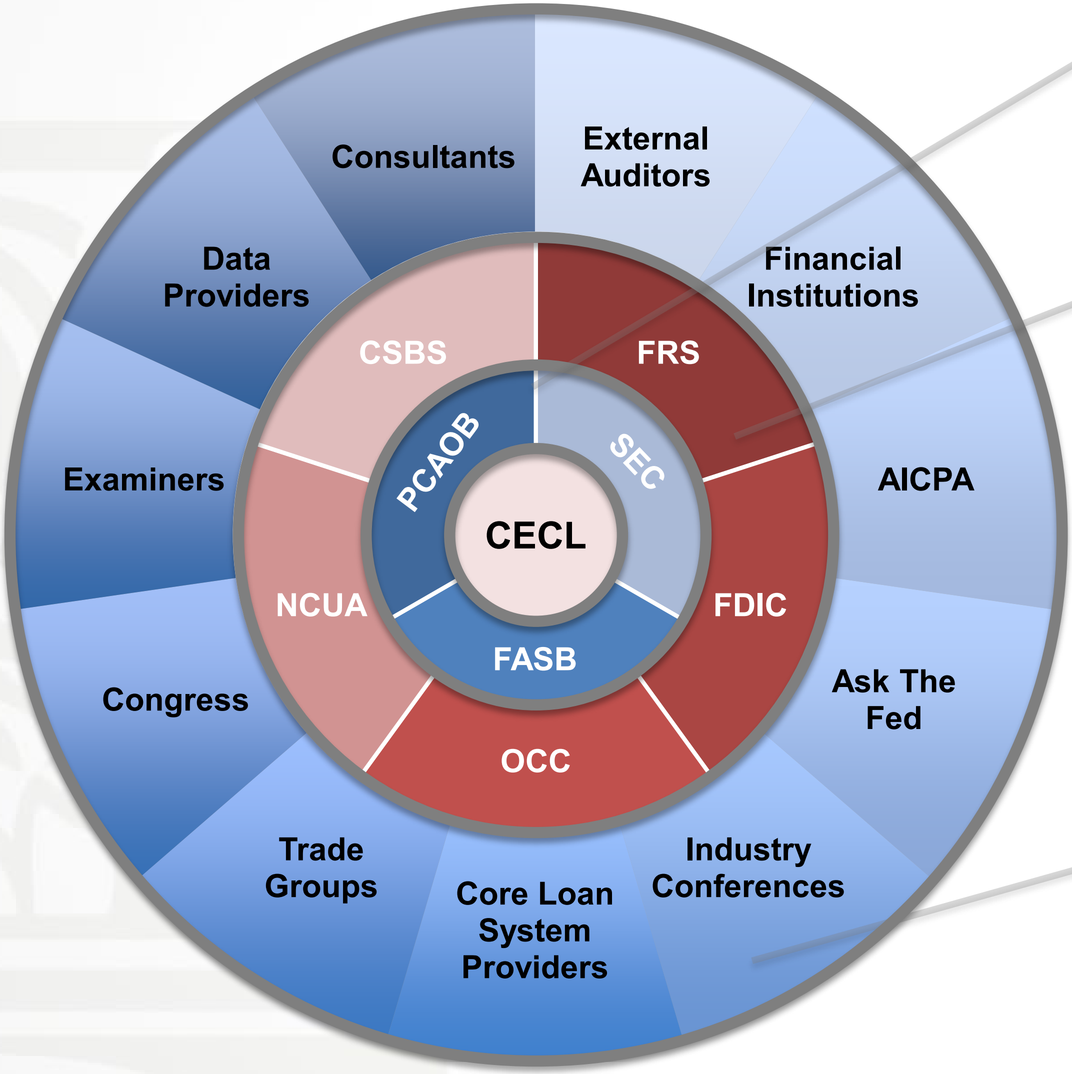
Presented By:
David C. Schwartz

FEDERAL RESERVE BANK of ATLANTA

This document is a communication vehicle and does not constitute official accounting or supervisory policy. Refer to applicable system policy and U.S. GAAP guidance for more specific information. The views expressed in this document are those of the author(s) and do not necessarily reflect the views of the Federal Reserve Bank of Atlanta, the Federal Reserve Board of Governors, or the Federal Reserve System.

Current Expected Credit Losses (CECL)

Some of the many stakeholders



Standard Setting

- Recent amendments
- FASB Staff Q&As

Interagency Coordination

- FAQs and other publications
- Interagency Policy Statement on the allowance for credit losses (ACL)
- Regulatory Capital Phase-in
- Capital Stress testing
- Reporting

Outreach

- Addressing implementation practices and issues

Acronyms

Acronyms used in this presentation

- **ACL** – Allowance for Credit Losses
- **AICPA** – American Institute of Certified Public Accountants
- **CECL** – Current Expected Credit Losses Methodology
- **CSBS** – Conference of State Bank Supervisors
- **FASB** – Financial Accounting Standards Board
- **FAQ** – Frequently Asked Questions
- **FDIC** – Federal Deposit Insurance Corporation
- **FRS** – Federal Reserve System
- **NCUA** – National Credit Union Administration
- **OCC** – Office of the Comptroller of the Currency
- **PCAOB** – Public Company Accounting Oversight Board
- **Q&A** – Questions and Answers
- **SEC** – U.S. Securities and Exchange Commission