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2022 Financial Services Virtual Symposium

November 16, 2022

Welcome!

A&A Update

Tax Update

Accounting for Tax Credit Changes

Cybersecurity in Banking

Digital Assets

Credit Trends

Regulatory Compliance

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2022 Financial Services
Virtual Symposium

Accounting & Auditing Update

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Agenda

- CECL is upon us
- TDR’s no more
- PCD, a thing of the past?
- Other

ASU 2016-13: Financial Instruments – Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments

- Effective for all entities within the scope of the standard beginning January 1, 2023
- Key items
  - Is my method going to work?
  - Unfunded commitments
  - Supporting qualitative adjustments

ASU 2022-02: Financial Instruments – Credit Losses (Topic 326), Troubled Debt Restructurings & Vintage Disclosures

- Effective for entities that have already adopted Update 2016-13 for fiscal periods beginning after December 15, 2022
- Effective for all entities after they have adopted Update 2016-13. The amendments related to vintage disclosures affect public business entities with investments in financing receivables that have adopted Update 2016-13

ASU 2022-02: Financial Instruments – Credit Losses (Topic 326), Troubled Debt Restructurings & Vintage Disclosures

- Issue 1: Troubled Debt Restructurings by Creditors
  - The amendments in this Update eliminate the accounting guidance for TDRs by creditors in Subtopic 310-40, Receivables—Troubled Debt Restructurings by Creditors, while enhancing disclosure requirements for certain loan refinancings & restructurings by creditors when a borrower is experiencing financial difficulty
  - Specifically, rather than applying the recognition & measurement guidance for TDRs, an entity must apply the loan refinancing & restructuring guidance (consistent with the accounting for other loan modifications) in paragraphs 310-20-35-9 through 35-11 to determine whether a modification results in a new loan or a continuation of an existing loan. Further, enhances existing disclosure requirements & introduces new requirements related to certain modifications of receivables made to borrowers experiencing financial difficulty

ASU 2022-02: Financial Instruments – Credit Losses (Topic 326), Troubled Debt Restructurings & Vintage Disclosures

- Issue 2: Vintage Disclosures – Gross Write-Offs
  - For public business entities, the amendments in this Update require that an entity disclose current-period gross write-offs by year of origination for financing receivables & net investments in leases within the scope of Subtopic 326-20, Financial Instruments—Credit Losses—Measured at Amortized Cost

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Purchased Financial Assets with More-than-Insignificant Credit Deterioration (PCD)

- Recent FASB meetings in 2022
  - The board decided to amend the accounting for acquired assets to eliminate the distinction between purchased credit deteriorated (PCD) & non-PCD assets
  - The board decided to apply the PCD accounting model for acquired assets, with certain exceptions
  - The board decided to amend the term *purchased with credit deterioration* (PCD) to *purchased financial assets* (PFA) for referencing the financial asset acquisition accounting model
  - The board decided that seasoning should be defined using principles-based criteria that consider the acquirer's involvement with the asset prior to acquisition, with a bright-line period of 90 days. The board also decided that financial assets acquired in a business combination should be presumed seasoned. Seasoned assets would be accounted for under the PFA accounting model
  - The board decided that credit cards, home equity lines of credit (HELOCs), & other revolving arrangements with active borrowing privileges should be included within the scope of the PFA model when acquired through both business combinations & asset acquisitions
  - The board decided that assets not recognized at fair value in a business combination, primarily contract assets & a lessor's net investment in sales-type & direct financing leases, should be included within the scope of the PFA model when acquired through both business combinations & asset acquisitions

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Accounting for & Disclosure of Crypto Assets

- Recent FASB meetings in 2022
  - The board decided to require an entity to
    - Measure crypto assets (as defined by FASB) at fair value, using the guidance in Topic 820, Fair Value Measurement
    - Recognize increases & decreases in fair value in comprehensive income each reporting period
    - Recognize certain costs incurred to acquire crypto assets, such as commissions, as an expense (unless the entity follows specialized industry measurement guidance that requires otherwise)

Other

- Other Real Estate Owned
- OCC Bank Accounting Advisory Series (BAAS) updated with few additions in August 2022
- FFIEC Call Report Supplemental Instructions – September 2022

Thank you!

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Tax Update: The Evolving World of Tax

Meet the Presenter

Heather Wallace
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Agenda

1. Inflation Reduction Act of 2022
2. Research Expense Capitalization (IRC Section 174)
3. Executive Compensation Disallowance Expansion (IRC Section 162(m))
4. State Income Tax for a Virtual Bank
5. Other Notable Items

Inflation Reduction Act of 2022

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Inflation Reduction Act of 2022 (IRA)

- Based on the Build Back Better framework
  - Passed by the House in November 2021
  - Originally included the Biden Administration's policy goals
  - Passed by the Senate in August 2022 after months of negotiations by Senate Democrats & Senator Joe Manchin
  - Signed into law on August 16, 2022, by President Biden
- Includes social, tax, & climate provisions
  - Medicare prescription drug pricing
  - Extension of health insurance premium subsidies under the Affordable Care Act
  - Tax provisions
  - Climate & energy provisions

Inflation Reduction Act of 2022 (IRA)

Corporate Alternative Minimum Tax (AMT)

- Imposes a 15% minimum tax on corporations with >$1 billion in income reported on their financial statements, or "book income," with some adjustments, beginning in tax years after 2022
- Applies to certain U.S. corporations part of foreign-parented multinational group, & corporations that have been in existence for less than three years
- Excludes S corporations, regulated investment companies, & real estate investment trusts

Inflation Reduction Act of 2022 (IRA)

Excise Tax on Repurchase of Stock

- Applies to stock of domestic corporations that are traded on an established securities market
- Excise tax = 1% fair market value of stock repurchased by corporation during tax year
  - Not applicable if total value of stock repurchased for tax year does not exceed $1M
  - Some carveouts & netting provisions
  - Anti-abuse provisions
- Effective for purchases of stock after December 31, 2022

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Research Expense Capitalization (IRC Section 174)

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Research Expenses (IRC Section 174)

- Tax Cuts & Jobs Act (TCJA) of 2017 amended the former law of deduction immediately or capitalize/amortize
- The new law removed the ability to deduct immediately
- No immediate deduction allowed for disposition, retirement, or abandonment
- Delayed adoption date **beginning in tax year 2022**, the tax treatment of research & development expenses must be amortized **over 60 or 180 months**
- Topic of heavy discussion in Congress

Research Expenses (IRC Section 174)

- Cash – increases current cash taxes for next four tax years (at a minimum)
- Regulatory capital – increase in non-attribute deferred tax assets for disallowed deferred tax asset purposes
- Expense & FTE expectations – calculation complications, including state tax decoupling & foreign subsidiary impacts

Research Expenses (IRC Section 174)

Facts:

XYZ Bank

Generates $1M of taxable income each year for 2022-2027

Incurs $250k of IRC Section 174 annual expenditures in 2022-2027

All IRC Section 174 expenditures are internal costs-salaries, facilities overhead, etc.

	2022	2023	2024	2025	2026	2027	Total	
Taxable Income before IRC Sec. 174	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 6,000,000	[A]
Book-tax difference: IRC Sec. 174								
Year of Expenditure	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000		
Amortization (2022)	$ (25,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (25,000)		
Amortization (2023)	$ -	$ (25,000)	$ (50,000)	$ (50,000)	$ (50,000)	$ (50,000)		
Amortization (2024)	$ -	$ -	$ (25,000)	$ (50,000)	$ (50,000)	$ (50,000)		
Amortization (2025)	$ -	$ -	$ -	$ (25,000)	$ (50,000)	$ (50,000)		
Amortization (2026)	$ -	$ -	$ -	$ -	$ (25,000)	$ (50,000)		
Amortization (2027)	$ -	$ -	$ -	$ -	$ -	$ (25,000)		
Taxable Income After IRC Sec. 174	$ 1,225,000	$ 1,175,000	$ 1,125,000	$ 1,075,000	$ 1,025,000	$ 1,000,000	$ 6,625,000	[B]

Cumulative Tax Deduction Deferral	$ 625,000	[B] less [A]
Corporate Tax Rate	21.0%	
Cumulative Tax Impact	$ 131,250	

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Research Expenses (IRC Section 174) ACTION

Have research & experimentation expenses been incurred in 2022 that will require a tax adjustment?

Internal salaries

Internal facilities overhead (supplies, power, water, light)

Depreciation &/or rent

External consulting (domestic or foreign)

Computing costs (hardware, cloud, & licensing)

Attorney fees

Models & drawings

Executive Compensation Disallowance Expansion (IRC Section 162(m))

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Executive Comp (IRC Section 162(m))

Recap: IRC Section 162(m) limits the annual tax deduction to $1M for covered employees of the company

- Law significantly amended with Tax Cuts & Jobs Act (“TCJA”) of 2017
- Applies to a publicly held corporation (equity &/or debt)
- Generally, the covered employees are the SEC-named executive officers
- **Five** covered employees for each tax year, plus any previous covered employees that are not a current-year covered employee. Once a covered employee in any year, always a covered employee

Executive Comp (IRC Section 162(m))

- Law significantly expanded again in March 2021 pursuant to the American Rescue Plan Act
- Expands the law to disallow a compensation deduction above $1M to the "next five" highest compensated employees beyond the five covered employees. Minimum of 10 limitations per tax year
- Effective on January 1, 2027
- Impact on 2022

Reminder, favorable IPO transition rule is no longer available to executive compensation in the year becoming publicly traded, effective on the first day of the tax year becoming public

Executive Comp (IRC Section 162(m))

Facts:

XYZ Bank

Jane is a securities broker at a bank affiliate, ABC broker-dealer, with a base salary of $1M per year

Jane was the lead broker of the largest IPO of 2021

Jane was granted 300,000 RSUs on Jan 2, 2022 for the 2021 performance, cliff vesting on January 2, 2027

Book compensation cost per award is $25 ratably amortized over the total period

No risk of forfeiture

Assume the awards vest on January 2, 2027 for $25

	2022	2023	2024	2025	2026	2027	Total
Book Expense	$ 1,495,890	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 4,110	$ 7,500,000
Tax Deduction	$ -	$ -	$ -	$ -	$ -	**$ 7,500,000** [A]	$ 7,500,000
Deferred Tax Asset at End of Year (21%)	**$ 314,137**	$ 629,137	$ 944,137	$ 1,259,137	$ 1,574,137	$ -	

[A] Since Jane's compensation is expected to be above $1M in 2027, the RSU DTA accrued in 2022 must be tested for limitation

Executive Comp (IRC Section 162(m)) ACTION

Has the company (if public or planning to be public) considered the impact of the next five highest paid employees for deferred tax purposes?

- Employees with substantial noncash compensation elements that are outstanding currently
- NQSOs & ISOs (DQD only) with expiration dates in 2027+
- RSA/RSUs with vesting dates in 2027+
- Deferred compensation/SERP agreements expecting payment after 2027+

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State Income Tax for a Virtual Bank

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State Income Tax for a Virtual Bank

- "How do I apportion the bank's income when I operate in multiple states?"
- "Is it correct to assume that two states can tax the same income?"
- " … but I generated the loan through an online portal. How can I be taxed in the state when I don't have a branch/office in that state?"

State Income Tax for a Virtual Bank

47 states (& D.C.) with a corporate income tax

- "Three-Factor" of receipts, property, & payroll – 15 states
- "Single-sales receipts factor" only – 32 states

Receipts are sourced either by market sourcing or cost-of-performance/income-producing activity

- 10 states utilize cost-of-performance (AK, AR, AZ, FL, KS, MS, ND, NH, SC, VA)
- 37 states utilize a form of market sourcing or a modified version depending on the revenue stream (from an intangible asset or a service)

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State Income Tax for a Virtual Bank

A bank operating in two jurisdictions with disparate laws can create tax distortion leading to double taxation

Example

XYZ Bank operates a mortgage servicing subsidiary with 100 employees in South Carolina. The servicing is entirely for North Carolina mortgage customers only

Both jurisdictions are single – sales factor for apportionment. North Carolina sources receipts based on the market & South Carolina sources based on the cost of performance

North Carolina receipts factor – 100% (customers (“market”) all in North Carolina)

South Carolina receipts factor – 100% (performance of the service all in South Carolina)

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State Income Tax for a Virtual Bank

- Recent interpretive guidance or litigation on market sourcing
- Florida Technical Assistance Advisement 21C1-005 July 2021. Concluded a taxpayer's service revenue should be sourced to market vs. cost of performance. Florida law is income-producing activity (COP)
- Texas Supreme Court *Sirius XM Radio, Inc. v. Hegar,* March 2022. Texas attempted market sourcing when law was cost of performance

State Income Tax for a Virtual Bank

- California Legal Ruling 2022-01 March 2022. California has ruled that look-through sourcing for services is allowed. A customer-of-the-customer
- Illinois Notice of Proposed Amendment to 86 Ill. Admin. Code Section 100.3200 May 2022. Proposal to institute a throwback rule on receipts, including foreign sales
- Arkansas Opinion Nos. 22-154, 155, 156 March 2022. Source digital revenue on end-customer location. Arkansas is a cost of performance state

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State Income Tax for a Virtual Bank

- Evaluate all receipts through different methods. Location of borrower, location of collateral, location of service/performance/decisioning

- Evaluate receipt data for market sourcing vs. cost of performance arbitrage (two states with disparate sourcing laws)

Other Notable Items

Other Notable Items

Federal

- Final regulations on LIBOR transition issued in Dec. 2021
- Bonus depreciation graduated phase out begins 1/1/2023 (80%–2023, 60%–2024, 40%–2025, 20%–2026, & 0%–2027+)
- FBAR filing penalties (foreign bank account with >$10k) to be heard by U.S. Supreme Court – highlights the control procedures that taxpayers should have documented (penalty of $10k or 50% of account balance)

Other Notable Items

Federal

IRS released the annual "Dirty Dozen" list on June 10, 2022. Announced the hiring plans of 200 new attorneys to pursue these transactions. Eight items were listed, including the following

Concealing & Improper Reporting of Digital Assets

Abusive Syndicated Conservation Easements

Abusive Micro-Captive Insurance Arrangements [Also, 10th Circuit of Appeals upheld IRS position in early June 2022]

Other Notable Items

State

- Georgia authorizes some groups to elect consolidated income tax filings H.B 1058, May 2022
- Virginia deconsolidated return eligibility if filed the last 12 years (20 years previously), July 2022
- Kentucky final regulations, sourcing of income for financial organizations & expansion of financial organization definition, April 2022

Questions?

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Accounting for Tax Credit Changes

Meet the Presenters

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Agenda

I. Tax Credits & Current Accounting

II. Overview of Simplified Accounting for Tax Credits (EITF 21-A)

III. Qualifying Criteria

IV. Action Items

V. Recognition

VI. Measurement

VII. Presentation

VIII. Disclosures

IX. Adoption Methods

X. Comments from Users

Simplified Accounting for Tax Credit Investments (EITF 21-A)

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Current Investor Feedback

"We would like to enter the tax credit market(s), but the accounting is too diverse, complicated, & can create an income statement geography disparity for our bank"

Tax Credits & Current Accounting

Affordable Housing Tax Credits (IRC Section 42)

Proportional Amortization ASC 323-740 (former ASU 2014-01) &/or

Equity method for Real Estate Investments ASC 970-323

Renewable Energy Tax Credits (Wind/Solar/Fuel Cell) (IRC Section 48)

Investment Tax Credits ASC 740-10-2-46 (former APB 2 & 4) – one of four methods

Hypothetical Liquidation at Book Value (“HLBV”) SOP Accounting for Investors’ Interests in Unconsolidated Real Estate Investments, Dated 11/21/2000

Tax Credits & Current Accounting

Historic Rehabilitation Tax Credit (IRC Section 47)

Investment Tax Credits ASC 740-10-2-46 (former APB 2 & 4) – one of four methods

Hypothetical Liquidation at Book Value (“HLBV”) SOP Accounting for Investors’ Interests in Unconsolidated Real Estate Investments, Dated 11/21/2000

New Markets Tax Credit (IRC Section 45D)

NOT an Investment Tax Credit, but similarities exist

Some investors use Investment Tax Credit methods, some use a hybrid

Overview of Simplified Accounting for Tax Credit Investments (EITF 21-A)

GOAL: Create consistency in accounting & provide financial statement geography transparency & enhancements

- **EITF 21-A**, Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method
- The EITF reached a consensus to expand proportional amortization to all tax credit investments that meet the criteria in ASC 323-740-25-1
- Transition adjustments can be either modified prospective or fully retrospective

Qualifying Criteria (EITF 21-A)

Qualifying Criteria of ASC 323-740-25-1

1. Probable the tax credits will be available to the investor
2. The investor does not have the ability to exercise significant influence over the investment
3. Substantially all (+90% ASC 840) of the projected benefits are from tax credits or other tax benefits
4. Projected yield is positive
5. Investor has limited liability

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ACTION

- Inventory existing tax credit investments & model a modified prospective or fully retrospective transition
  - Consider if ITC investment accounting election is the <u>deferral</u> method, could negatively impact other income prospectively
  - Consider the HLBV impairment for recent ITC tax credit investments (timing of impairment)

- What if I cannot qualify for PA method?
  - Use the old “cost” accounting model – accounting for non-readily marketable equity securities in Topic 323

Policy

If the ASU is adopted, there is a policy decision to make

Inventory tax credit programs – policy to use proportional amortization (PA) method is "*elected upon a tax-credit-program-by-tax-credit-program basis*" & must be "*applied consistently to all tax-equity investments in an elected tax credit program*"

What is a Tax Credit Program?

Tax Equity Investments that convert to or use the PA method, must use the flow through tax method. The **deferral method** is no longer available

Recognition

Income Tax Credits are recognized when they are allocated to the investor for tax purposes

Meaning – Cannot recognize immediately on day 1 unless all have been allocated/expected to be allocated on the K-1

Measurement

What is the PA Method?

This is not new – existed in GAAP, but only for affordable housing

A. Amortizes the initial cost, less any residual value, in proportion to *income* tax credits & other *income* tax benefits allocated in the current period divided by the total estimated *income* tax credit & other *income* tax benefits expected to be received OR

B. Practical Expedient – can use only the income tax credits to compute PA – If expected to provide a substantially similar result as if using the total income tax benefits

Measurement

Reminder – the Expected Residual value is Excluded from the PA calculation

Non-income tax benefits received from operations are included in income (above-the-line (not in income taxes)) as earned.

Gains/Losses on sale of the investment, recognized at the time of sale (above-the-line (not in income taxes))

Measurement

Example (Source – Example 2 in the proposed ASU)

The following are the terms for this investment

- Date of investment: January 1, 20X1
- Purchase price of investment: $100,000

Various assumptions in the proposed ASU – Key items listed below

- Cash flows occur at the end of each period, except investment
- 5% equity investment
- Has non-income tax benefits
- Residual is $0

Measurement

Column	A	B	C	D	E	F	G	H
Year	Net Investment	Amortization of Net Investment	Tax Credits	Net Losses/Tax Depreciation	Other Tax Benefits from depreciation	Tax Credits and Other Tax Benefits	Tax Credits and Other Tax Benefits, net of Amortization	Non-Tax Related Cash Returns
BOY	100,000							
1		20,601	20,000	8,300	3,320	23,320	2,719	58
2		20,601	20,000	8,300	3,320	23,320	2,719	58
3		20,601	20,000	8,300	3,320	23,320	2,719	58
4		20,601	20,000	8,300	3,320	23,320	2,719	58
5		2,933	-	8,300	3,320	3,320	387	58
6		2,933	-	8,300	3,320	3,320	387	58
7		2,933	-	8,300	3,320	3,320	387	58
8		2,933	-	8,300	3,320	3,320	387	58
9		2,933	-	8,300	3,320	3,320	387	58
10		2,933	-	8,300	3,320	3,320	387	58
Total		100,000	80,000	83,000	33,200	113,200	13,200	580

B = BOY A x (YR F/Total F)

E = D x 40% tax rate

H = G - C

Measurement

Amortization Year 1 =

$100,000 x(($20,000 + $3,320) / $113,200)=$20,601 year 1 amortization

Entry to Record – Year 1

Debit – Income taxes Payable – $23,320

Credit – Investment in Tax Credit Entry – $20,601

Credit – Income Tax Benefit (P&L) – $2,719

If the FASB changed the tax rate to 21% in this example, the investment would not qualify for PA method

Presentation

- No special financial statement presentation issues
- Purpose of the ASU is to expand the use of the PA method to include the benefit from these investments in tax expense/benefit

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Disclosures

Disclosure of information that in principle provide

A reader/user information to understand the nature of the Company's investments in projects that generate income tax credits & benefits

The effect of Measurement & Recognition of these investments

Disclosures

Must Disclose

- The amount of income tax credits & other income tax benefits recognized during the period, including the line item in the statement of operations & statement of cash flows in which they have been recognized
- The balance of the investments & the line item in which the investments are recognized in the statement of financial position
- For tax equity investments accounted for using the proportional amortization method, the amount of investment amortization recognized as a component of income tax expense (benefit)

Disclosures

- The amount of non-income-tax-related activity & other returns received that are recognized outside of income tax expense (benefit) & the line item in the statement of operations & statement of cash flows in which they have been recognized
- Significant modifications or events that resulted in a change in the nature of the investment or a change in the relationship with the underlying project for investments that apply the proportional amortization method
- Tax Equity investments accounted for under the equity method & income/loss in pretax income

Disclosures

- Commitments/Contingencies (reminder – unconditional commitments to contribute are accrued as an investment & a liability at the commitment date)
- The amount & nature of impairment losses during the year resulting from the forfeiture or ineligibility of income tax credits or other circumstances

Adoption Methods

Full Retrospective Method

- For those tax credit programs in scope, calculate the PA method from the date the tax equity investment was entered into, considering effects of any modifications
- Using the PA example, compute the difference if any in the balance sheet & beginning equity as of the earliest financials presented – for example, if presenting 2022 & 2021 balance sheet & post a cumulative effect adjustment back to 1/1/21
- Income statement changes – reclassification & any amortization true up, go to income tax expense from other line items
- Other transition disclosures that are typical for retrospective application

Adoption Methods

Modified prospective method

- For those tax credit programs in scope, calculate the PA method from the date the tax equity investment was entered into, considering effects of any modifications. Same as retrospective
- Using the PA example, compute the difference if any in the balance sheet & beginning equity as of the beginning of the fiscal period adopted – for example, if adopting in 2023, post a cumulative effect adjustment as of 1/1/23 for the impact
- Other transition disclosures that are typical for modified prospective method

What Are Users Saying?

Comment letter period is closed – what are some of the highlights?

- Extend the treatment beyond income tax credits – mainly from industry
- Include examples of customary Renewable Energy Investments
- Most users feel the model is workable; however, want more examples or a definition of what a “tax credit program” represents
- Reassess eligibility criteria around the “positive yield” requirement
- Reassess eligibility criteria around the “substantially all” requirement – make it less restrictive
- New Market Tax Credits – many of these may be consolidated & should be revisited as part of this project

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Cybersecurity in Banking

Presenter

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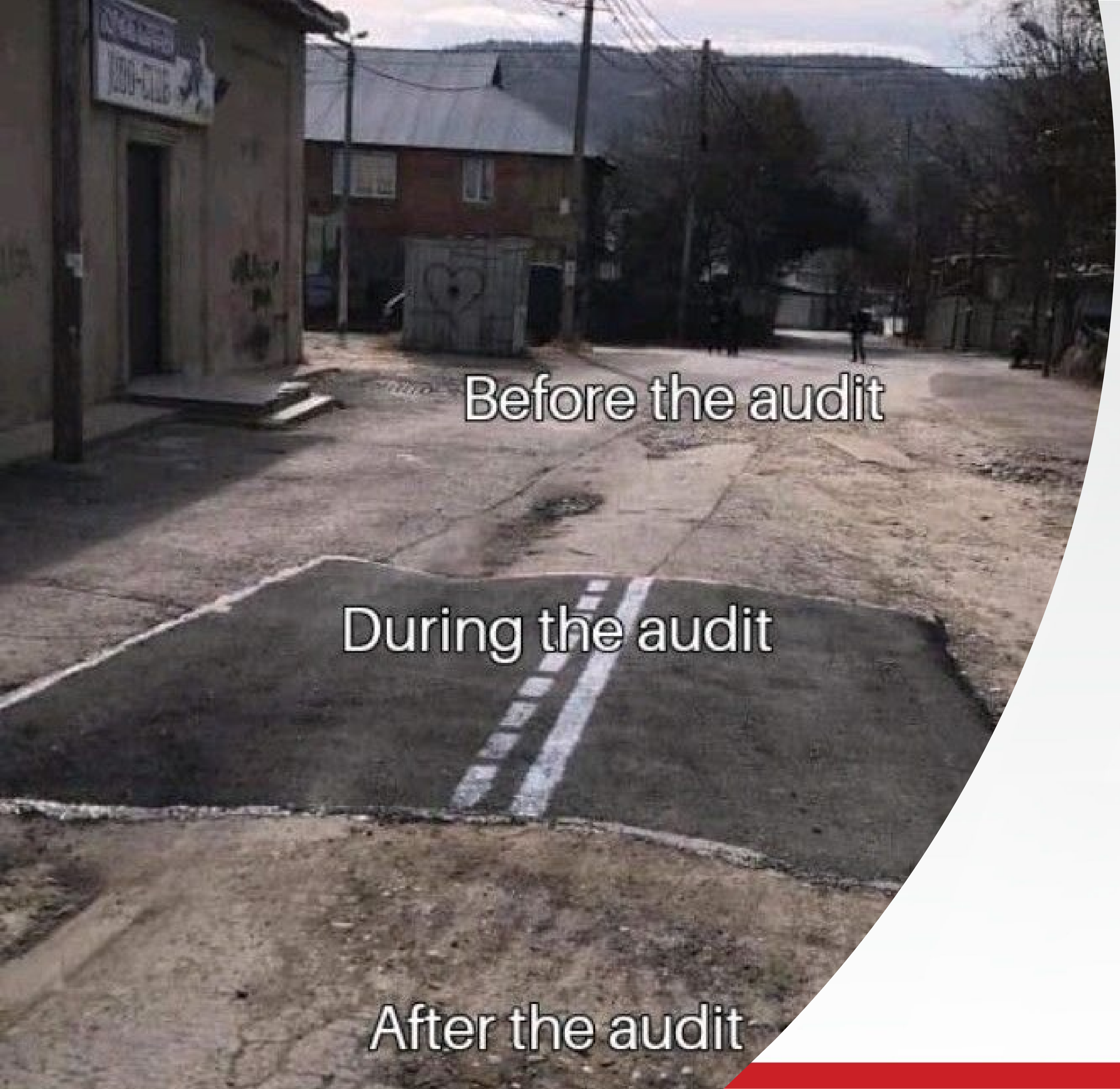
Agenda

- ❑Update on Cybersecurity Trends & Statistics
- ❑Discuss Current Cybersecurity Threats & Concerns
- ❑Discuss Industry Best Practices
- ❑Final Thoughts & Resources
- ❑Questions & Answers



My world in a nutshell!

Cybersecurity Trends & Statistics

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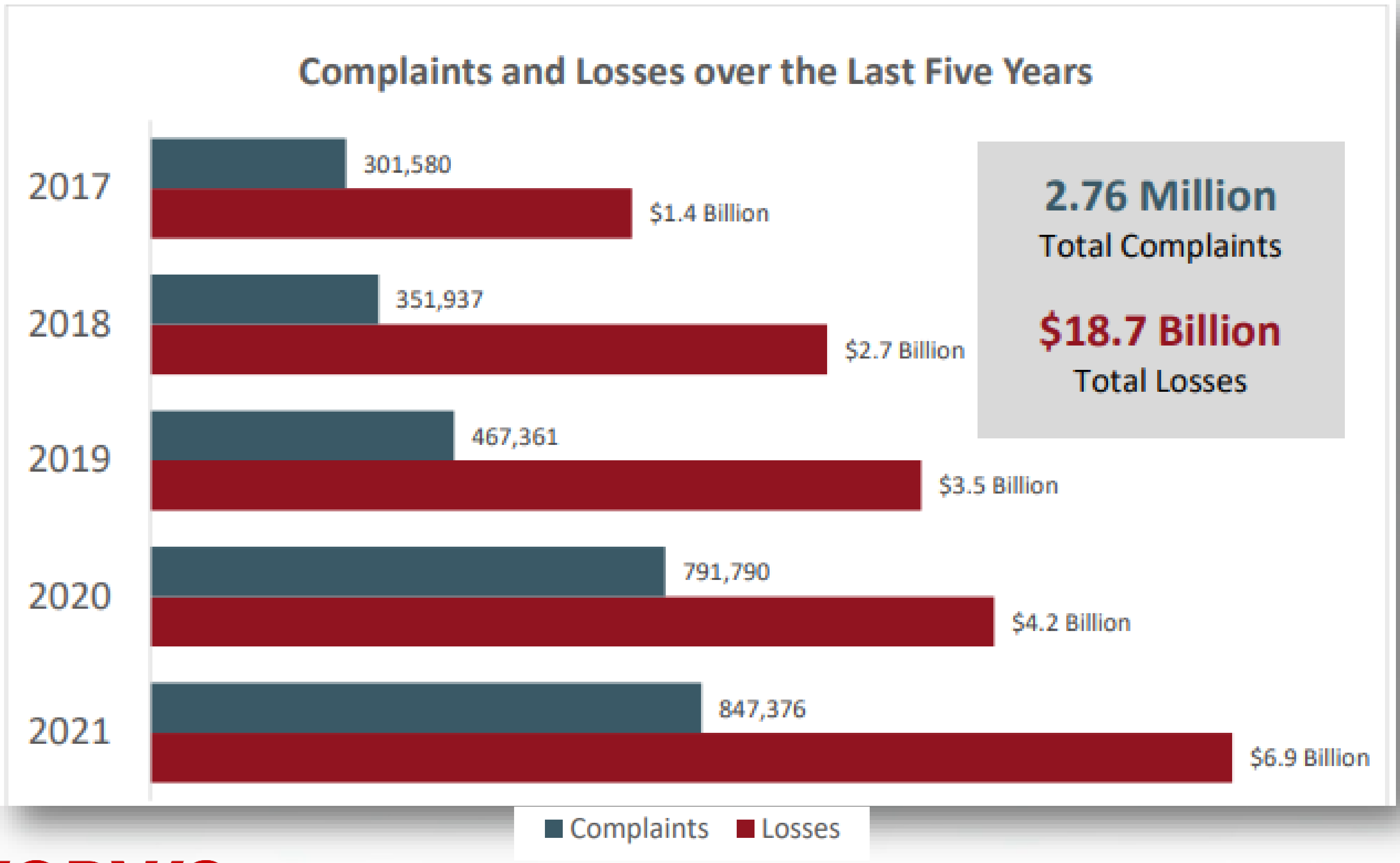
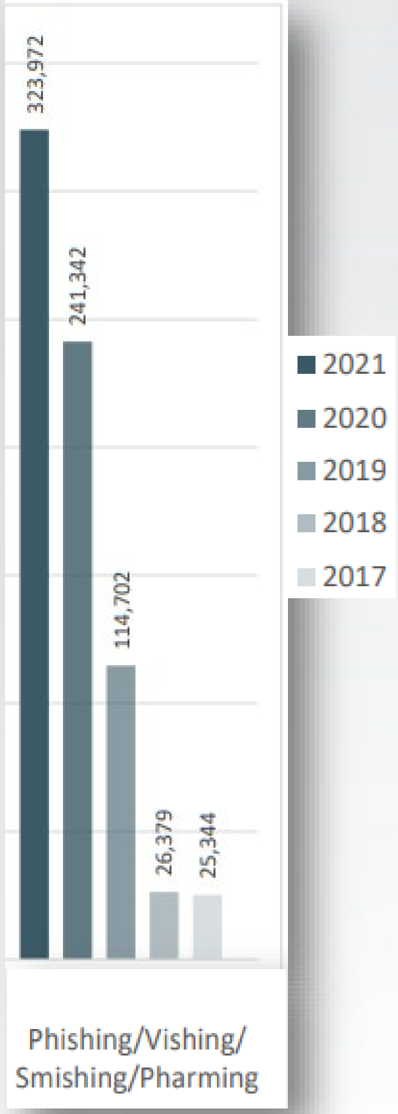
2022 Verizon DBI Report

- **Ransomware-related breaches increased by 13%** *(more than the past five years combined)*
- Nearly 50% of all system intrusion *incidents* involved ransomware last year
  - Ransomware was present in almost 70% of malware breaches in the past year
- **Supply chain was involved in 62% of incidents** this year. *Compromising the right partner is a force multiplier for threat actors*
- **82% of the breaches** reported involved the use of stolen credentials, phishing, misuse, or human errors. People still play a large role!

FBI's IC3 Five Year Statistics





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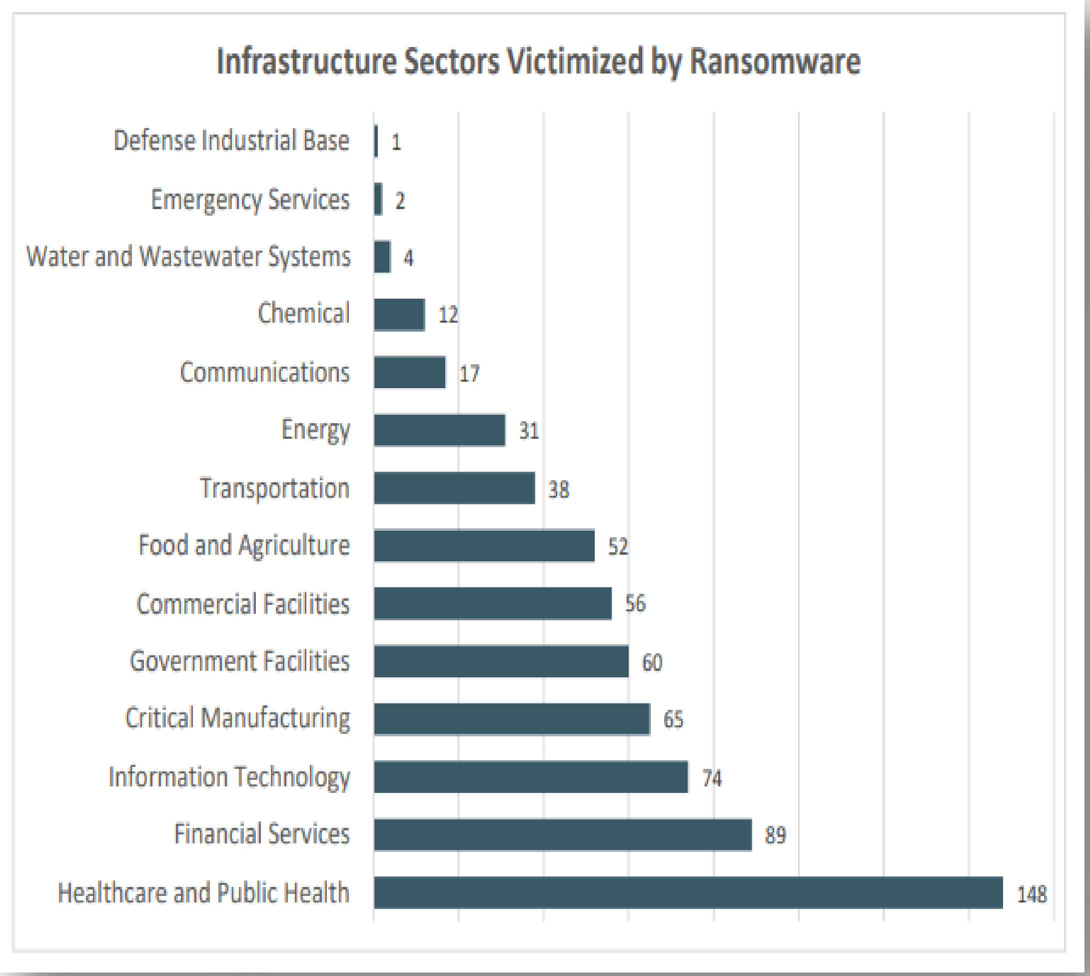
IC3 – Ransomware Fast Facts

****The average downtime for a ransomware incident is 16–21 days*****

For 2021, the FBI's Internet Crime Complaint Center (IC3) received 3,729 complaints identified as ransomware with adjusted losses of more than **$49.2 million**

There were 2,474 complaints files in 2020 representing a **66% increase** from 2020 to 2021 (2021_IC3Report.pdf)



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IC3 – Business Email Compromise (BEC)

In 2021, the IC3 received **<u>19,954 complaints</u>** of Business Email Compromise (BEC)/Email Account Compromise (EAC) complaints with adjusted losses at nearly **<u>$2.4 billion</u>**

*Note: BEC fraud have cost businesses around the world **<u>$43 billion</u>** during the period between June 2016 & December 2021*

IC3 Recovery Asset Team (RAT) Guidance

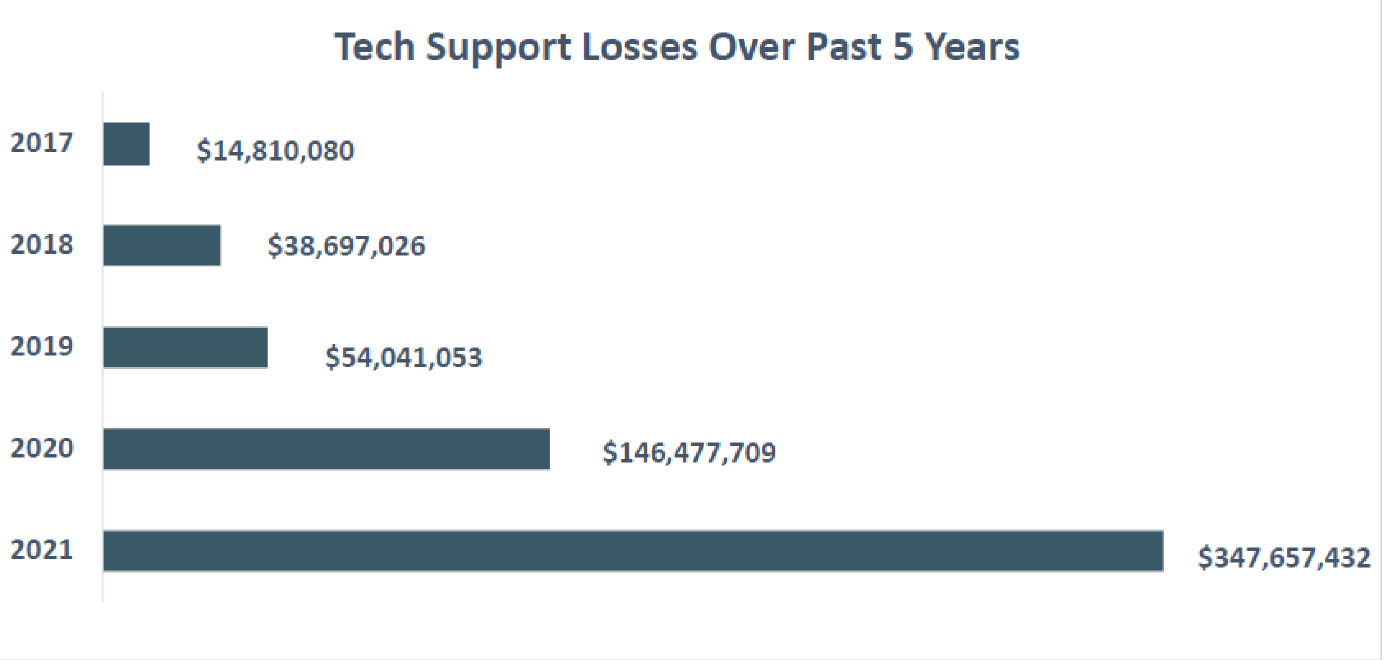
- Contact the originating financial institution as soon as fraud is recognized to request a recall or reversal & a Hold Harmless Letter or Letter of Indemnity
- File a detailed complaint with www.ic3.gov. It is vital the complaint contain all required data in provided fields, including banking information
- Visit www.ic3.gov for updated PSAs regarding BEC trends as well as other fraud schemes targeting specific populations, like trends targeting real estate, pre-paid cards, & W-2s, for example
- Never make any payment changes without verifying the change with the intended recipient; verify email addresses are accurate when checking email on a cell phone or other mobile device

Tech Support Fraud

In 2021, the IC3 received **23,903 complaints** related to Tech Support Fraud from victims in 70 countries. The losses amounted to more than $**347 million**, up ***137% since 2020***

Note: 60% of victims were over 60 years old & accounted for $238 million of the total losses

Many victims report being directed to make wire transfers to overseas accounts or purchase large amounts of prepaid cards



These scammers impersonate well-known tech companies, offering to fix non-existent technology issues or renew fraudulent software or security subscriptions. However, in 2021, the IC3 observed an increase in complaints reporting the impersonation of customer support, which has taken on a variety of forms, such as financial & banking institutions, utility companies, or virtual currency exchanges

You Are the Target

Importance of Awareness Training

C-level executives are 12 times more likely to be the target of social engineering attacks

Are you trained more than employees?

If not, why?

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Cybersecurity Threats & Impacts

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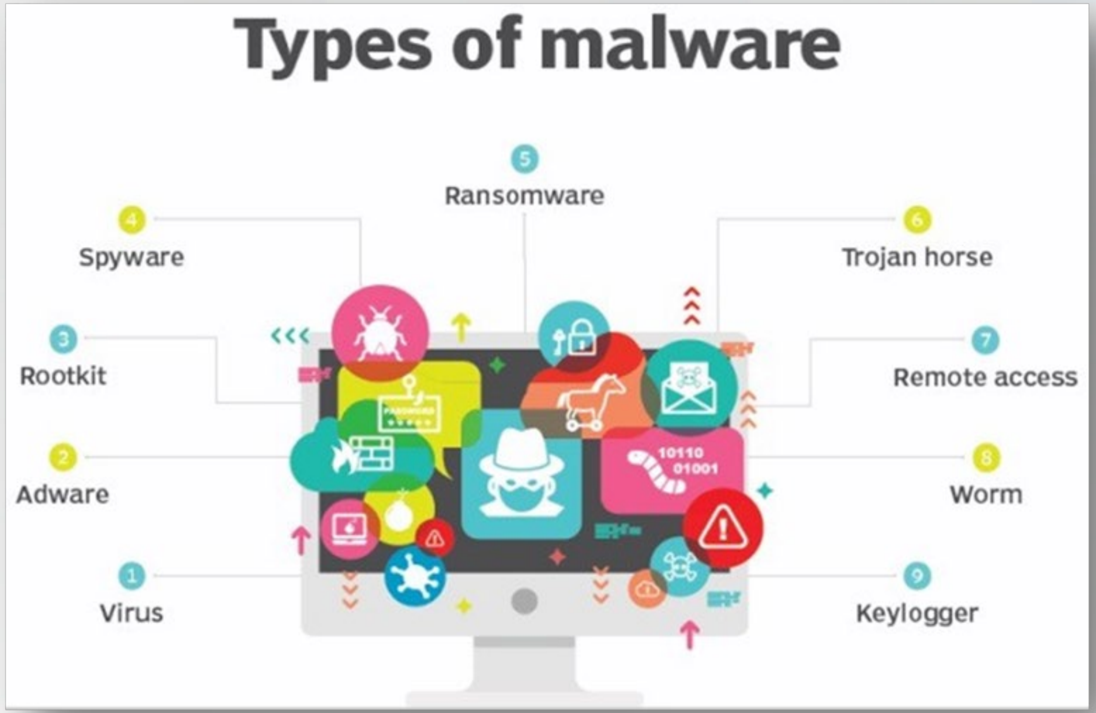
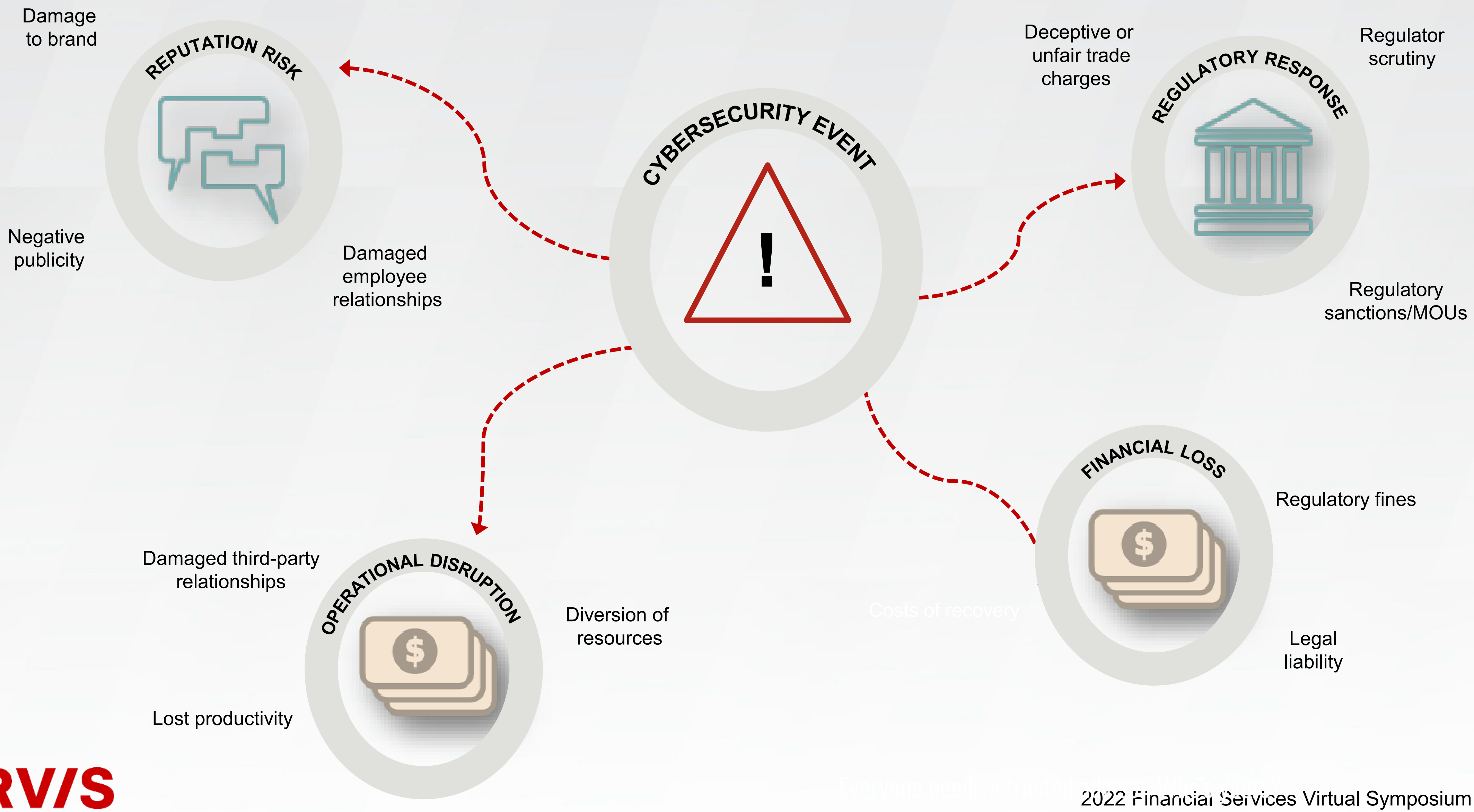
Most Common Cybersecurity Threats

- Social engineering attacks – phishing
- Business email compromise
- Supply chain attacks!
- Malware/destructive malware
  - *Ransomware*
  - Remote access
  - Keyloggers
- Cloud applications/web apps



Root causes of cyberattacks: Inadequate training, ineffective patch management, weak privileged access controls, & unmonitored detection systems

Breach Impacts



Breach Detection & Expense

You can't afford to ignore cybersecurity – especially now!

Average total cost of a data breach in FS **$5.97 million ($5.72)**

In the U.S., average total cost of a data breach is **$9.44 million ($9.05)**

Average cost per lost or stolen record is **$161 ($146)**

Companies with an incident response team & extensive testing of their response plans saved over $2 million compared to those who did not

Mean time to identify a breach **207 days**

Mean time to contain **70 days**

Source: Ponemon Institute 2022 Cost of Data Breach Study

Breakdown by Industry

Source: 2022 Cost of a Data Breach Report

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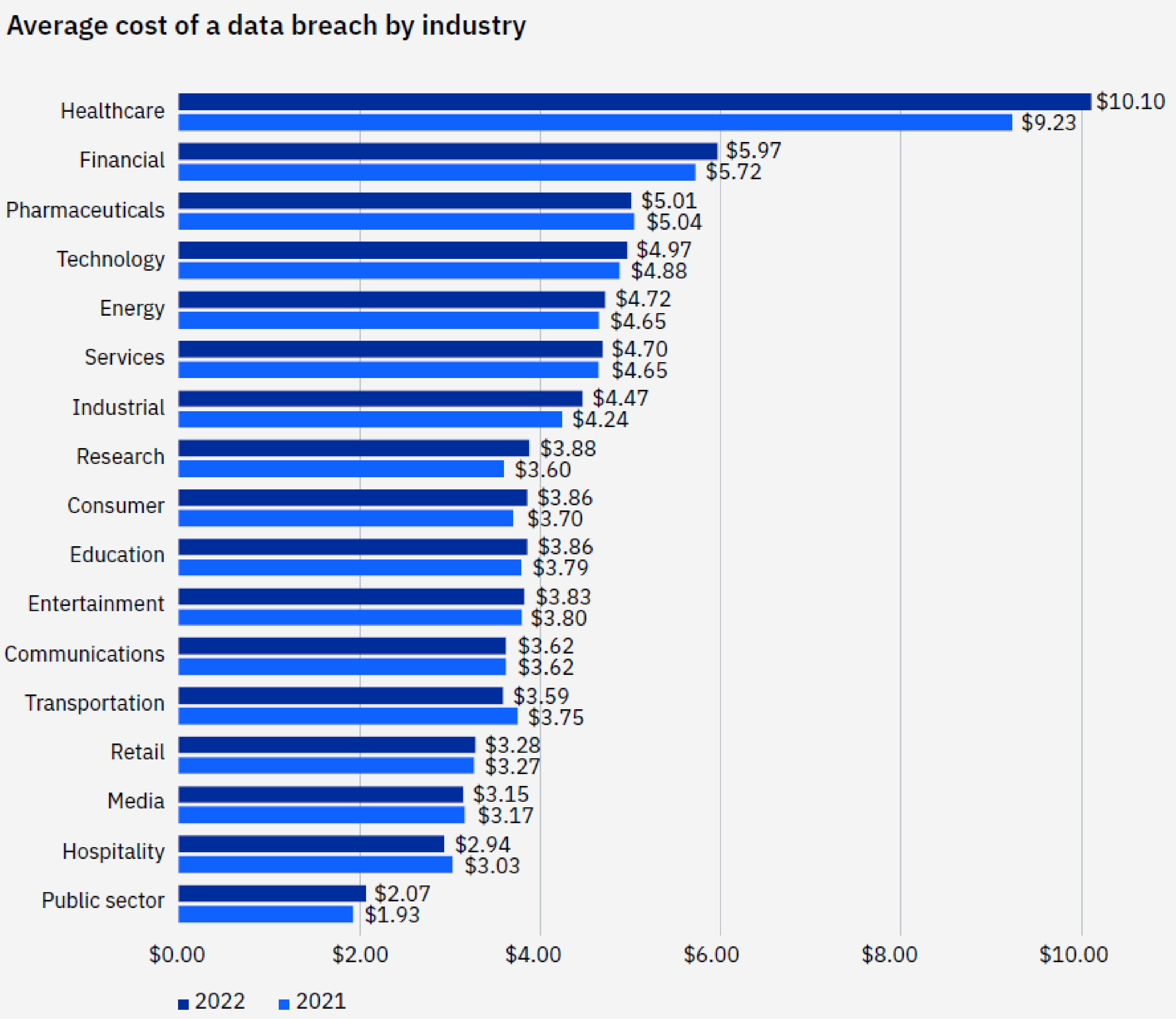

Top FI Cybersecurity Events – Past 10 Months

- Flagstar Bank ($30B) – Massive data breach – 1.5M customers' records impacted
- U.S. Bank – 11,000 records accidentally shared
- Block (*F.K.A.Square*) – data breach, 8.2M customers, unauthorized access to records for former employee
- *Log4J Vulnerability – software vulnerabilities

Industry Updates & Best Practices

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Key Considerations: Focus on Governance Controls

- Maintain a strong **information security program**
- Maintain a strong **incident response program**
- Ensure **business continuity/DR** & **vendor management** policies & procedures address cybersecurity
- Consider how **cybersecurity insurance** should fit into your risk management program
- Ensure **cybersecurity awareness training** is performed regularly (educate & motivate)
- Engage in **FS Information Sharing & Analysis Center (FS-ISAC)** or other information sharing forums – filter reports based on each employee's role
- Perform **<u>frequent</u> cyber risk assessments**, penetration tests, vulnerability assessments, & IT control audits

Key Considerations: Focus on Technical Controls

- Use **multifactor** or **two-factor** for O365, VPN, remote sessions, & privileged access
- Track, report, independently test, & update security **patches** based on a risk priority schedule (Microsoft & non-Microsoft patches)
- Maintain accurate **asset inventories** for hardware & software, including **data classification**
- Enforce **application whitelisting** controls & **remove** unauthorized applications
- **Remove local administrator** rights to reduce malicious software installs
- **Tune existing security tools** – web content, email filtering, end point, etc.
- Deploy **cloud-based security** software & end-point protection (SentinelOne, Crowdstrike, Windows Defender, etc.)

Key Considerations: Technical Controls

- Implement strong cloud-based **data loss prevention** controls
- Use **security information & event management (SIEM)** tools with **"defense in depth"** approach
- **Change** your passwords more frequently during this time
- Ensure **data encryption** is enforced to protect confidential data
- **Segment** internal networks to isolate critical systems
- Be aware of **insider threat** – layoffs, disgruntled, etc. Think zero trust!
- **Air gap** your backups to keep them out of reach of an attack
- Make your air-gapped backups **immutable**!

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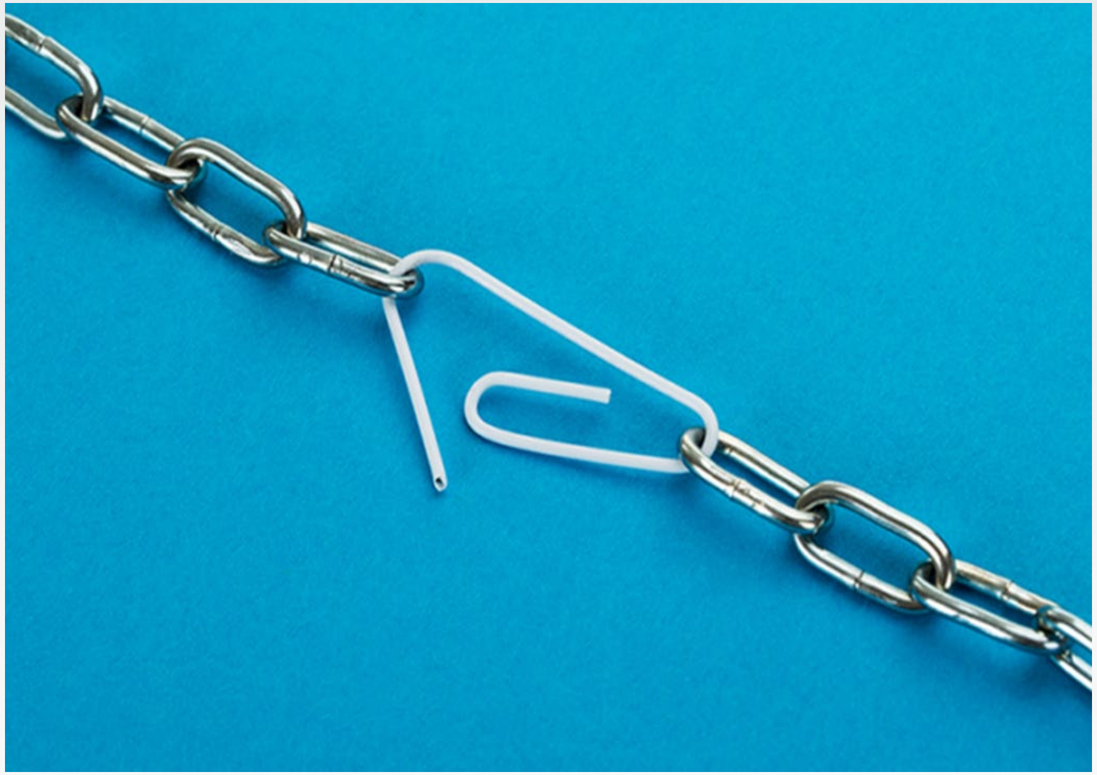
What Cybercriminals See if You Fail!



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Final Thoughts & Conclusion

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Cybersecurity Nutrition

Cybersecurity Nutritional Facts

Serving Size: 1 Cybersecurity Professional

	%Daily Value*
Passion	300%
Determination	500%
Creativity	100%
Critical Thinking	1000%
Innovation	100%
Hard Work	200%
Sleep	0%
Caffeine	110%

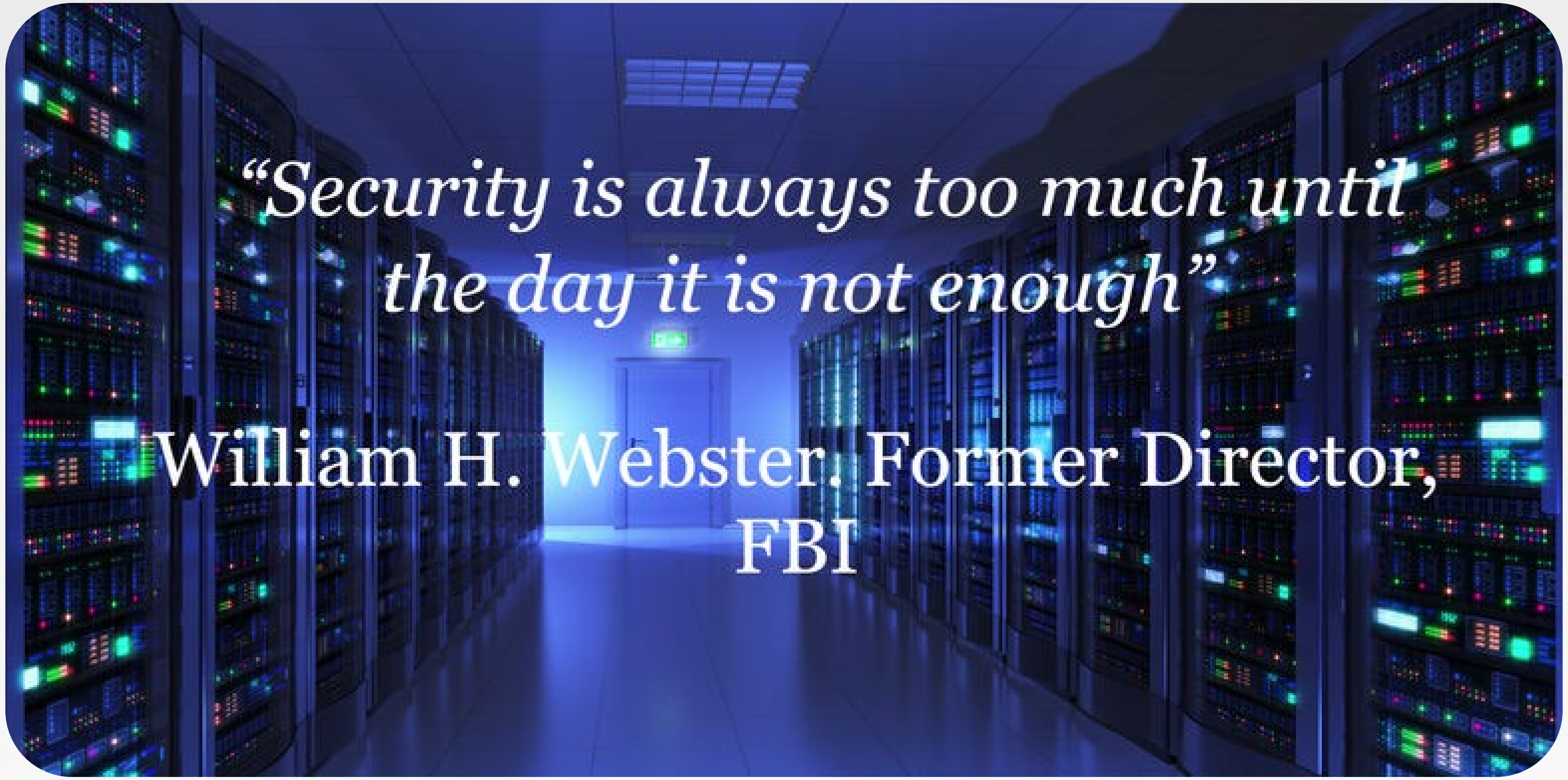
*Percent Daily Values Are Based on Your Unique Diet

A strong cybersecurity culture & overall program is a must going forward!

Are you taking care of your “cybersecurity health”?

When the Board & key executives emphasize a cybersecurity culture—& implements programs that align with that culture—it's much easier to get buy-in from all stakeholders across your organization

A Quote to Remember!



Other Resources

- Cybersecurity Resource Guide for Financial Institutions – https://www.ffiec.gov/press/pdf/FFIECCybersecurityResourceGuide2022ApprovedRev.pdf
- Info Risk Today – https://www.inforisktoday.com/
- Security Week – https://www.securityweek.com/
- Dark Reading – https://www.darkreading.com/
- The Top Cyber Threat Intelligence Feeds – https://thecyberthreat.com/cyber-threat-intelligence-feeds/

Q&A

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Digital Assets

Meet Your Presenters

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Objectives

DIGITAL ASSETS

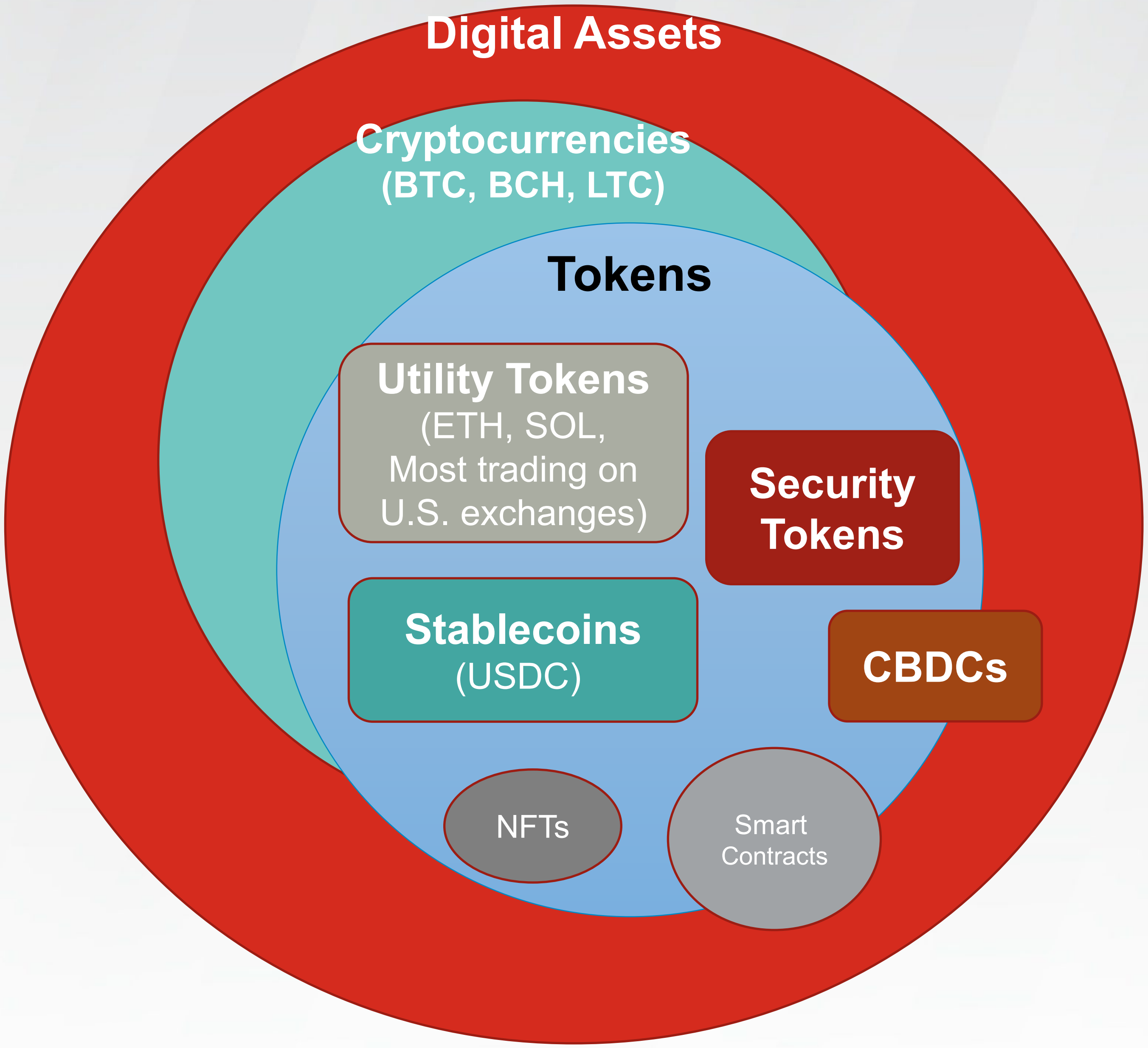
- Introduction & Terminology
- Regulatory Environment
- Financial Services Use Cases
- Questions

Terminology

Blockchain Examples & Their Cryptocurrencies

- ✓ Bitcoin (BTC)
- ✓ Ethereum (ETH, USDC, plus thousands more)
- ✓ Solana (SOL)
- ✓ Polkadot (DOT)
- ✓ Ripple (XRP)
- ✓ Lots more ...

Some terms used broadly such as “Cryptocurrency” & “Token”



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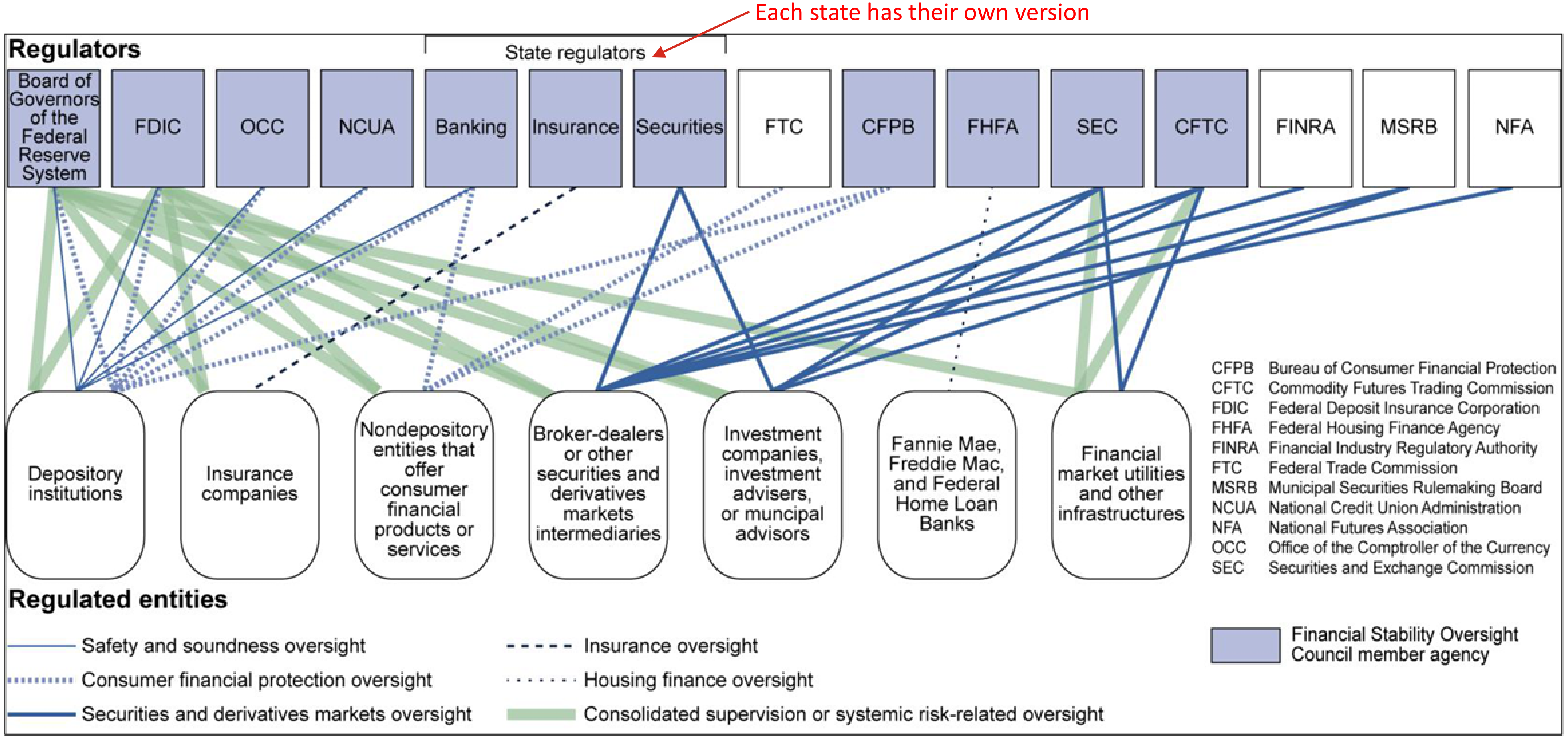
Why Is Crypto Regulation so Hard in the U.S.?

Figure 1. Regulatory Jurisdiction by Agency and Type of Regulation



Source: Government Accountability Office (GAO), *Financial Regulation*, GAO-16-175, February 2016, Figure 2.

Most countries have one or two regulators for ALL of these activities

President’s Executive Order on DA – March 2022

The order calls on various federal agencies to help

- Explore Development of a U.S. CBDC
- Protect U.S. Consumers, Investors, & Businesses
- Protect U.S. & Global Financial Stability
- Mitigate Illicit Finance & National Security Risks
- Promote U.S. Leadership in Tech & Economic Competitiveness
- Promote Equitable Access to Financial Services
- Support Technological Advances

Regulatory Players

Treasury

- How do we prevent illicit finance using digital assets?

SEC

- What constitutes a digital asset security?
- SAB 121

CFTC

- Who should regulate digital asset spot markets?

Regulatory Players

Regulators have issued strong statements requiring banks to notify them early in the planning stages of potential any digital asset activities

FRB
- Who should have access to an FRB account?
- CBDC holder?

FDIC
- OCC prohibited activities = FDIC prohibited activities
- C&D letters to non-banks claiming FDIC insurance

OCC
- Certain digital asset activities are permissible (IF S&S maintained)
- Specialized charters?

State Regulators
- Specialized charters?
- Some states more "friendly" than others

Which digital assets activities are permissible bank activities?

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Other Interested Parties

IRS

- Crypto is property
- How do we get the info we need?

FASB

- Fair value!
- More to come on recognition, derecognition, presentation, & disclosure

AICPA

- Practice aid with FAQs, risk, controls, audit best practices, etc. available

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Use Cases

- Lending (loans collateralized by crypto)*
- Wealth management & traditional custody (similar to transactions)
- Banking digital asset companies, stablecoin reserves*
- Mining (where excess server & computing power exists)*
- On balance sheet activities*
- Other custody (private key & cold storage)*

* *Limited adoption*

Customer Transaction Services

Third-Party Model

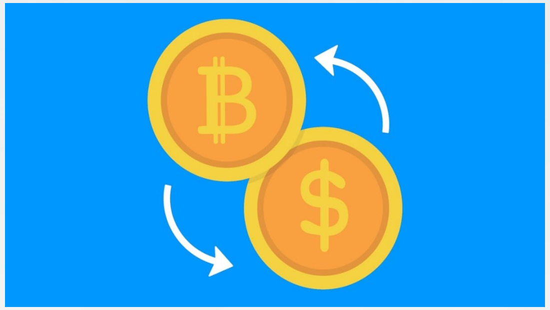
- Customer opens account with Bank in dollars

Customer also has account with Exchange holding crypto

Customer Funds

Buy Crypto

Sell Crypto



- Risk assessment
- Third-party monitoring
- System interface
- Reconciliation & custodial controls
- KYC/AML/BSA

- SOC report
- KYC/AML/BSA
- Tax Reporting

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Customer Transaction Services

- **Fintech Model**
  - Equity investment in third party
    - Bank provides access to FDIC insurance
    - KYC/AML/BSA
    - Who provides transaction reporting & IRS reporting
  - Consider if fintech business model includes
    - Required reporting
    - Risk assessment process
    - Secure IT environment
    - Use of third parties

Regulatory Approval

- For OCC Banks seeking to engage in certain crypto, digital ledger, or stablecoin activities, the Bank must
  - Notify the OCC in writing of intent to engage in activity
  - Receive OCC written notification supervisory non-objection

  (*state-chartered banks may experience a different process*)
- Must demonstrate appropriate
  - Risk management systems & controls
  - Written understanding of any compliance obligations (securities laws, BSA, AML)

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Additional Resources

- Interpretive Letters
  - 1170 – cryptocurrency custody services
  - 1172 – reserves backing stablecoin
  - 1174 – distributed ledger & stablecoin in payment activities (banks as nodes)
  - 1176 – OCC chartering authorities
  - 1179 – Affirms 1170-1174; emphasizes services must be safe & sound
- AICPA Digital Assets Working Group Practice Aid

Questions?

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Credit Trends

Your Presenter

Laura Knight
Director, Loan Review Services

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Agenda

- Credit Quality
- Credit Risk
  - Rising Rates
  - Concentrations
  - Credit Administration
  - Loan Structure

Credit Quality

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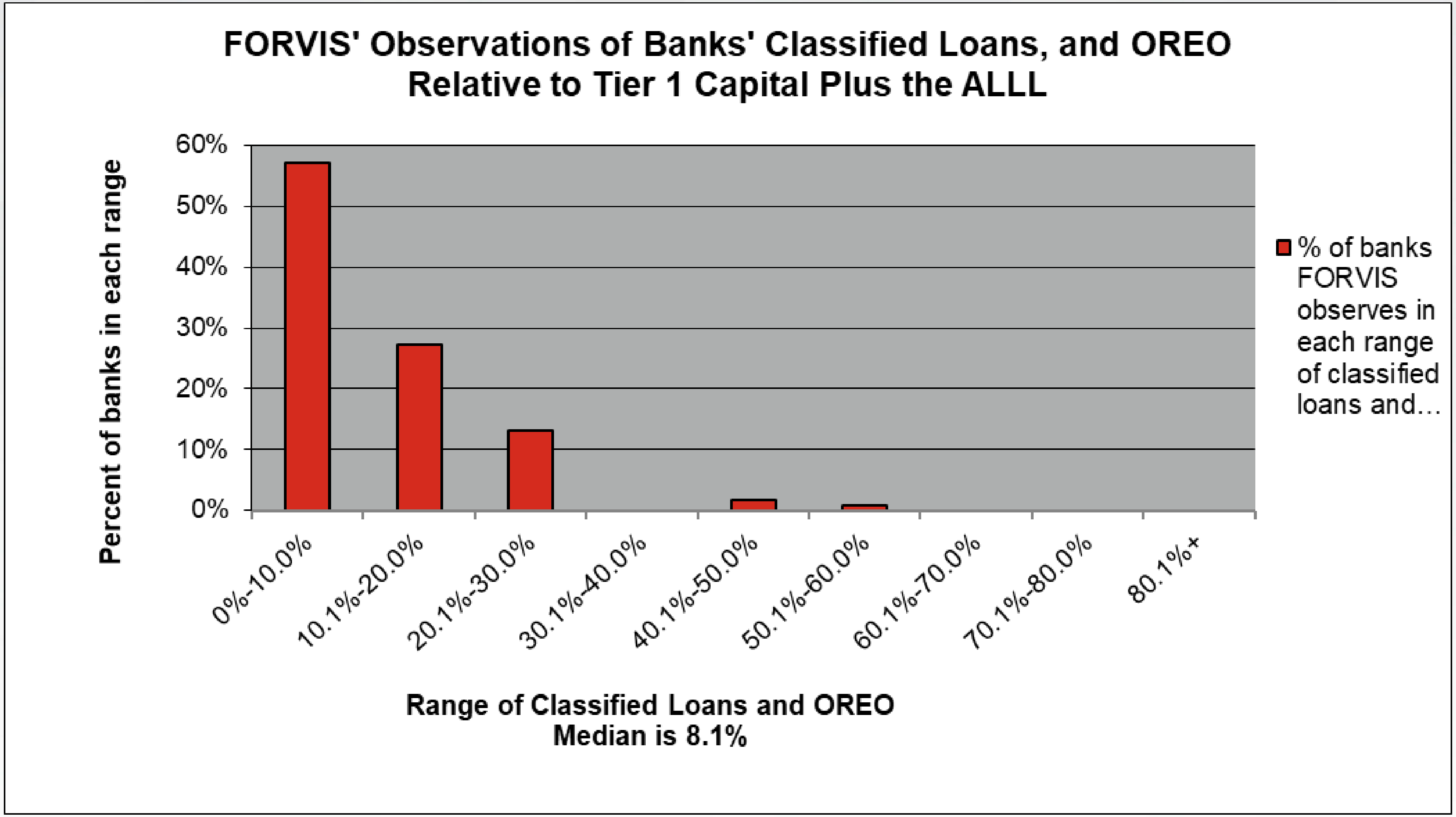
FORVIS' Observations – Average Classified/Capital Ratios

2022


FORVIS' Observations of Banks' Classified Loans, and OREO Relative to Tier 1 Capital Plus the ALLL
Percent of banks in each range
60%
50%
40%
30%
20%
10%
0%
0%-10.0%
10.1%-20.0%
20.1%-30.0%
30.1%-40.0%
40.1%-50.0%
50.1%-60.0%
60.1%-70.0%
70.1%-80.0%
80.1%+
% of banks FORVIS observes in each range of classified loans and...
Range of Classified Loans and OREO
Median is 8.1%

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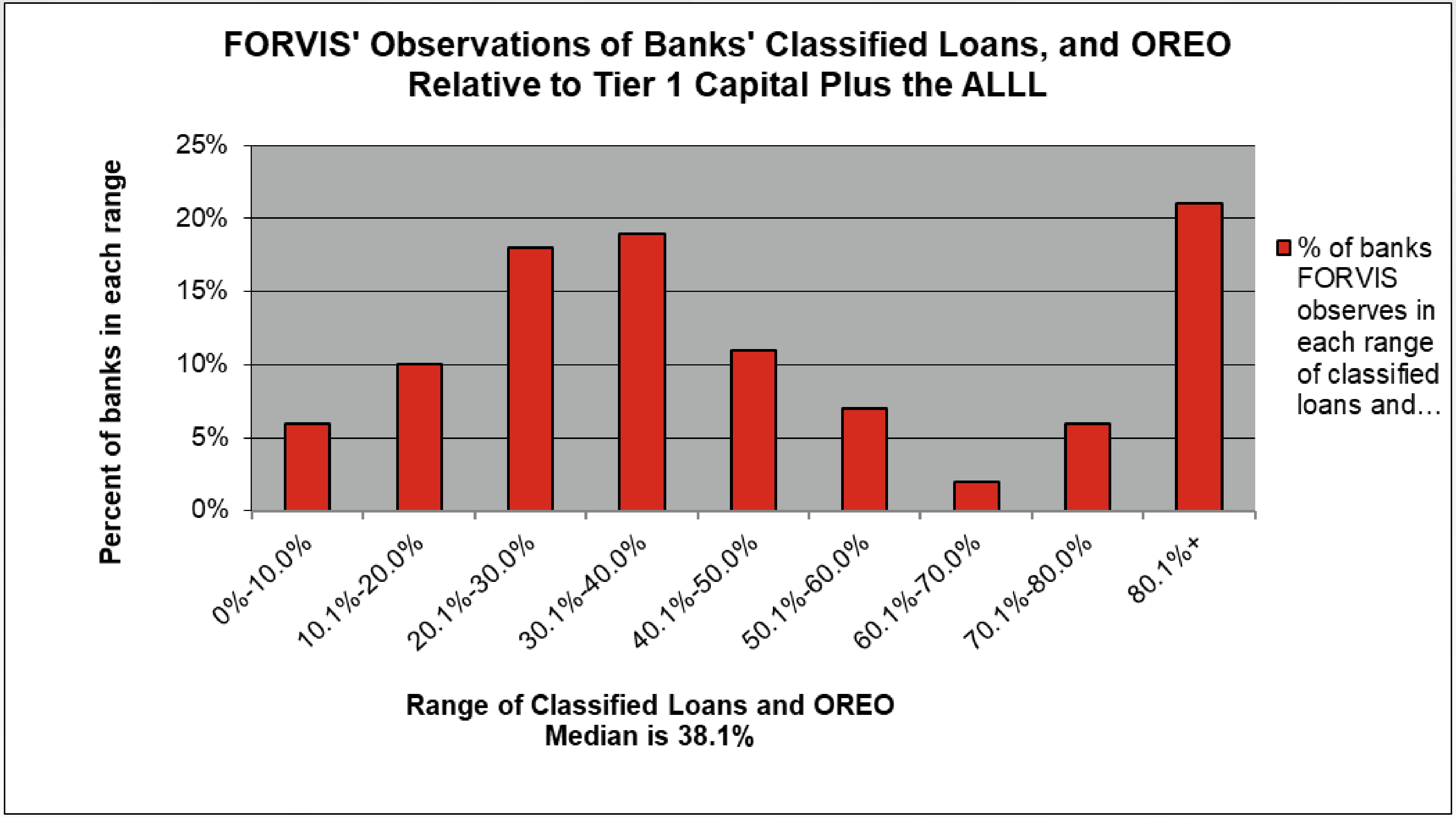
Historic Look Back at 2010



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Credit Risks

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Impact of Rising Rates

Let’s assume a client Bank has a $10,000,000 loan secured by an apartment complex

Below is the impact of rising interest rates on cash flow

Interest Rate	4%	4.5%	5.0%	5.5%	6.0%	6.5%	7.0%
DSCR	1.25	1.20	1.15	1.10	1.06	1.02	0.98

Impact on Rising Rates

Let's assume a client has a $1,000,000 Line of Credit

Below is the impact of a 3% increase in interest rate on cash flow

Time Frame	Rate	DSCR
Q4 2021	3.25	1.23
Q4 2022	6.25	0.64

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Drivers of Credit Risk

- Drivers out of Bank’s Control
  - Economy

- Drivers Within Bank’s Control
  - Concentrations
  - Credit Administration
  - Loan Structure

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Concentrations

- Concentration as a % of capital
- Multiplied by the potential migration rate to problem status
- Multiplied by the potential loss rate for problem loans
- Equals Potential Loss of Capital

  - Example – construction & land development in the Great Recession. In some instances
    - + 200% concentration
    - + 70% to 80% migration to problem status
    - + Losses of 50% to 75%
    - + Equals loss of 70% to 100% of capital

Concentrations

- You may not have one large risky concentration such as this, but what about smaller concentrations of riskier assets that collectively could pose problems?
- Will some industries move en masse?

Credit Administration

Loan Monitoring

- A growing economy can hide problems in loan monitoring processes
  - Construction loan disbursements
  - Floor plan audits
  - Borrowing base & accounts receivable lending
  - Covenant testing

Credit Administration – Loan Monitoring

- Critically examine the Bank's monitoring process
  - There is a cost to being perfect, & perfection is probably not practical
  - Makes sure there are no critical gaps in the Bank's processes
    - Consider the last recession: As real estate sales ground to a halt, a lot of banks ended up with fully disbursed construction loans against incomplete projects

Credit Administration

Risk Grading

Approach A – Kick the can down the road	The borrower has a problem. We'll see how they do over the next quarter & if the problem still exists, we'll consider a downgrade
Approach B – Proactive & timely identification	The borrower has a problem. We will downgrade the credit now to reflect the current risk & evaluate monthly results for improvement going forward

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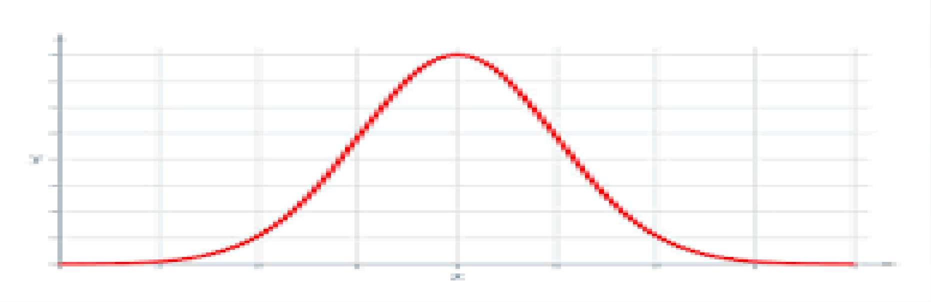
Credit Administration – Risk Grading

- Does the Bank's risk grading scale have a sufficient number of grades to differentiate risk?
- Is the distribution of assigned risk grades a bell-shaped curve?
  - We observe a lot of financial institutions with pass grades concentrated in few risk grades



Credit Administration – Loan Underwriting

- How much attention does the Bank pay to balance sheet risk?
  - Elevator analysis?
    - Assessment of liquidity & leverage
    - Impact of changes

Credit Administration – Loan Underwriting

- How is borrower making payments if cash flow is inadequate?
  - Do not allow the "paid as agreed" explanation to get in the way of truly recognizing risk
    - + Paying by managing their balance sheet can put the borrower in a position that it can not earn its way out of, *e.g.*, a large negative working capital position

Factors to Keep in Mind – Risk Identification

- Cash flow before & after PPP loan forgiveness income
- Balance sheet analysis & drivers of change
- Projections for 2023
- STR reports for hotels
- Timely recognition of problem loans

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Structure

- Structurally weak credits – will migrate faster to problem loan status & will result in higher losses
  - Liberal advance rates
  - Unsecured or under-secured when collateral is ideal
  - No personal guaranty agreement when one would be prudent
  - Inability to properly monitor the credit
  - Lengthy amortization schedules
  - Lack of an interest reserve on some CRE projects
  - Some instances where short-term debt is termed out to improve working capital

Structure

- Frequency of policy exceptions in underwriting
- Layering of exceptions?

Key Takeaways

- Rising Interest Rates
- Key Drivers of Risk
  - Concentrations
  - Credit Administration
  - Loan Structure
- Determine how borrower is making payments if cash flow inadequate

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Regulatory Compliance Update

Meet Your Presenters

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Agenda

- 2023 Regulatory Outlook
  - OCC 2023 Operating Plan
    - Economic Conditions
    - Key Areas
      - Consumer Compliance
      - Fair Lending
      - New Products & Services
  - How to Prepare
- Focus on Fees

2023 Outlook

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OCC 2023 Operating Plan – Economic Conditions

Economic Conditions

- Impacts of economic conditions
  - High Inflation
  - Recession Possibilities
  - Rising Interest Rates

Challenges

- Increased Compliance Cost
- Tightening Budgets
- Shortage of Qualified Resources/War on Talent
- Conduct Risk
- New Products & Services
- Compliance Involvement on Decisions

OCC 2023 Operating Plan – Key Areas

Key Areas

- Strategic & operational planning
- Operational resiliency
- Third parties & related concentrations
- Credit risk management
- Allowances for credit losses
- Interest rate risk
- Liquidity risk management
- **Consumer compliance**
- Bank Secrecy Act
- **Fair lending**
- Community Reinvestment Act
- **New products & services**
- Climate-related financial risks

https://www.occ.gov/news-issuances/news-releases/2022/nr-occ-2022-124a.pdf

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Key Areas – Consumer Compliance

Consumer Compliance Focus

- Compliance Management System (CMS)
- Complaints Management
- New Products, Services, or Delivery Channels
- Compliance Staffing

Key Areas – Fair Lending

Fair Lending Focus

- Fair access to products & services
- Redlining
- Entire lifecycle of credit products
- Appraisal bias/Discriminatory property evaluations

Key Areas – New Products & Services

New Products & Services Focus

- Unfair or Deceptive Acts or Practices (UDAAP) implications
- Compliance risk for new products
- Governance process
- Expertise to manage risk

How to Prepare

- Culture
- CMS
  - Board Management & Oversight
  - Compliance Program
  - Violation of Law & Consumer Harm
- Outsourcing (Subject Matter Resources)
- Technology

Focus on Fees

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Focus on Fees

Consumer Financial Protection Bureau Launches Initiative to Save Americans Billions in “Junk” Fees – January 26, 2022

Focus on Fees

The request for information (RFI) extends to providers of consumer financial products & services mortgage servicing is singled out

- Late Fees
- NSF Fees
- Convenience Fees (payment processing)
- Delinquency-related fees
  - Monthly property inspection fees
  - New title fees
  - Legal fees
  - Appraisal/Valuation fees

Focus on Fees

CFPB Moves to Reduce “Junk” Fees Charged by Debt Collectors – June 29, 2022

Focus on Fees

CFPB Issues Guidance to Help Banks Avoid Charging Illegal "Junk" Fees on Deposit Accounts – October 26, 2022

- Consumer Financial Protection Circular 2022-06 – Unanticipated overdraft fee assessment practices
- Bulletin 2022-06 – Unfair Returned Deposited Item Fee Assessment Practices

Focus on Fees

Regulatory enforcement trend

- Massachusetts
  - Supervisory Alert Letter: Representment Issue
- New York
  - Industry Letter: Avoiding Improper Practices Related to Overdraft & Non-Sufficient Funds Fees
- FDIC
  - Supervisory Guidance on Multiple Re-Presentment NSF Fees

Focus on Fees

- Inventory
- Catalog
- Authorized
- Contract/Disclosure
- Defend/Omit
- Monitor

Focus on Fees

Links

- Consumer Financial Protection Bureau Launches Initiative to Save Americans Billions in Junk Fees
  - Request for Information Regarding Fees Imposed by Providers of Consumer Financial
- CFPB Moves to Reduce Junk Fees Charged by Debt Collectors
  - Debt Collection Practices (Regulation F); Pay-to-Pay Fees

Focus on Fees

Links

- CFPB Issues Guidance to Help Banks Avoid Charging Illegal Junk Fees on Deposit Accounts
  - Consumer Financial Protection Circular 2022-06
  - Bulletin 2022-06: Unfair Returned Deposited Item Fee Assessment Practices

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