ASSEMBLY
BANKING & FINANCE COMMITTEE

LEGISLATIVE SUMMARY

Committee Members:
Timothy S. Grayson, Chair
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Diane Dixon
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BUSINESS ENTITIES

These bills propose changes to laws governing the organization or formation of business entities such as corporations or limited liability companies.

AB 231 (Chen)
Shareholders' meetings: remote communication.

Provides additional flexibility to corporations to offer audiovisual or audio-only participation in shareholder or member meetings, as specified.

Status: *Chapter 515, Statutes of 2023*

AB 554 (Gabriel)
Corporations for the prevention of cruelty to animals: enforcement of laws.

Clarifies that nonprofit corporations established for the prevention of cruelty to animals may file specified civil actions to enjoin behavior affecting animals.

Status: Ordered to the Inactive File in the Assembly

AB 1229 (Haney)
Unincorporated associations: decentralized nonprofit associations.

Establishes a business entity structure called a decentralized nonprofit association (DNPA) and establishes rules around governance and liability for DNPA members, administrators, and agents.

Status: Held in Assembly Judiciary Committee

AB 1436 (Chen)
Uniform Partnership Act of 1994: partnership statements.

Clarifies that a statement of dissociation is not the same as a statement of denial in the event a partner in a general partnership or limited liability partnership files a statement of denial that includes a denial of a person's authority or status as a partner.

Status: Held in Assembly Banking and Finance Committee

AB 2432 (Gabriel)
California Victims of Crime Act.

Establishes additional fines for corporations convicted of felony or misdemeanor offenses.

Status: *Chapter 651, Statutes of 2024*

AB 2908 (Chen)
Shareholders' meetings: remote communication.

Removes a sunset provision that applies to an authorization for corporations to hold remote shareholder or member meetings, as specified, making this authorization apply indefinitely.

Status: *Chapter 157, Statutes of 2024*

SB 446 (Wilk)
Nonprofit and cooperative corporations: ratification or validation of noncompliant corporate actions.

Conforms how a nonprofit corporation or cooperative corporation can ratify or validate an otherwise lawful non-compliant corporate action to such processes established for a for-profit corporation under the General Corporation Law.

Status: *Chapter 151, Statutes of 2023*

SB 1201 (Durazo)
Beneficial owners.

Requires corporations and domestic and foreign limited liability companies, beginning January 1, 2026, to report information about their beneficial owners, as specified, on periodic reports that those business entities are required to file with the Secretary of State and that are made available to the public.

Status: Held in Assembly Banking and Finance Committee

COMMERCIAL FINANCE

These bills propose new rules, standards, or oversight programs related to commercial finance, including franchise investing and small business lending.

SB 33 (Glazer)
Commercial financing: disclosures.

Removes a sunset provision for the requirement to disclose the cost of a commercial financing transaction expressed as an annualized rate.

Status: *Chapter* 376*, Statutes of 2023*

SB 54 (Skinner)
Venture capital companies: reporting.

Requires a venture capital company to report annually to the Civil Rights Department on its funding determinations related to companies primarily founded by diverse founding team members.

Status: *Chapter 594, Statutes of 2023*

SB 666 (Min)
Small business: commercial financing transactions.

Restricts specified fees charged to small businesses by commercial financing providers and brokers in connection with commercial financing transactions.

Status: *Chapter 881, Statutes of 2023*

SB 919 (Umberg)
Franchise Investment Law: franchise brokers.

Requires a franchise broker to register with the Department of Financial Protection and Innovation prior to engaging in the offer or sale of a franchise in this state and to provide a specified disclosure before engaging with a prospective franchisee about a franchise opportunity.

Status: *Chapter 518, Statutes of 2024*

SB 1482 (Glazer)
Commercial financing.

Prohibits a commercial financing provider or commercial financing broker from engaging in specified activity when doing business with commercial financing recipients.

Status: Ordered to the Inactive File in the Assembly

SB 1521 (Committee on Banking and Financial Institutions)
Commercial financing transactions: fees.

Allows a commercial financing provider or broker to charge a collateral monitoring fee under certain circumstances in connection with a small business commercial financing transaction.

Status: *Chapter 194, Statutes of 2024*

CONSUMER FINANCIAL PROTECTION

These bills propose new protections or initiatives designed to protect consumers using financial products such as loans or specialized savings accounts.

AB 1103 (Weber)
Deferred interest financing: notice.

Establishes disclosure requirements related to the end of a deferred interest period for certain deferred interest loan products.

Status*:* Held in Assembly Banking and Finance Committee

AB 1247 (Alvarez)
Consumer savings accounts.

Enacts the California Emergency Savings Account Option Act to analyze the extent of Californians' ability to withstand financial emergencies and the role of an emergency savings account or state program as a solution.

Status: Held in Assembly Appropriations Committee

AB 2017 (Grayson)
Banks and credit unions: nonsufficient funds fees.

Prohibits state-chartered banks and credit unions from charging a fee when a consumer's attempt to initiate a transaction is declined instantaneously or near instantaneously by the bank or credit union due to nonsufficient funds.

Status: *Chapter 509, Statutes of 2024*

AB 2993 (Grayson)
Home improvement and home solicitation: right to cancel contracts: loan financing regulation.

Adds requirements and restrictions related to home improvement contracts and a certain category of financing offered to consumers to pay for such improvements.

Status: Held in Senate Judiciary Committee

SB 278 (Dodd)
Elder abuse: emergency financial contact program.

Requires financial institutions to take specified actions intended to deter financial abuse of elder or dependent adults.

Status: Vetoed by the Governor

SB 1075 (Bradford)
Credit unions: overdraft and nonsufficient funds fees.

Limits the amount of nonsufficient funds and overdraft fees that a credit union may charge and requires a credit union to provide a notice to a member each time the credit union assesses such a fee.

Status: *Chapter 521, Statutes of 2024*

DEBT COLLECTION AND CREDIT REPORTING

These bills propose new rules or consumer protections related to debt collection and credit reporting.

AB 1414 (Kalra)
Civil actions: consumer debt.

Prohibits the use of common counts – and their lesser evidentiary burden – in consumer debt cases where the alleged debt obligation arose from a breach of contract.

Status: *Chapter 688, Statutes of 2023*

AB 2935 (Maienschein)
Foster children: consumer credit reports.

Revises requirements related to the placement of a security freeze, and the removal of a security freeze, on the credit report of a minor under the age of 16 years who has been placed in a foster care setting.

Status: *Chapter 846, Statutes of 2024*

SB 1061 (Limón)
Consumer debt: medical debt.

Prohibits reporting medical debt to consumer credit reporting agencies, those agencies from including it in their reports, and others from relying on medical debt that appears.

Status: *Chapter 520, Statutes of 2024*

SB 1286 (Min)
Rosenthal Fair Debt Collection Practices Act: covered debt: commercial debts.

Expands the scope of the Rosenthal Fair Debt Collection Practices Act to cover specified commercial debt, providing certain debtors with protections from harassment and other prohibited collections activities.

Status: *Chapter 522, Statutes of 2024*

DEPARTMENT OF FINANCIAL PROTECTION AND INNOVATION PROGRAM ADMINSTRATION

These bills modify the rules or scope of programs administered by California's primary financial services regulator.

AB 1116 (Grayson)
Money Transmission Act.

Makes assorted changes to the California Money Transmission Act and requires licensees to comply with these new or modified provisions beginning on January 1, 2025.

Status: *Chapter 463, Statutes of 2023*

AB 1296 (Grayson)
California Consumer Financial Protection Law: annual report.

Requires, until January 1, 2028, the Department of Financial Protection and Innovation's annual California Consumer Financial Protection Law report to separate out specified information related to crypto assets in a standalone section.

Status: Amended outside the Committee's jurisdiction to address another topic.

AB 1312 (Banking and Finance Committee)
Financial transactions.

This bill corrects erroneous cross-references in several provisions related to financial transactions.

Status: *Chapter 100. Statutes of 2023*

AB 2062 (Grayson)
Credit unions.

Makes assorted changes to California Credit Union Law, including changes related to membership applications, governance structures, sale of credit union assets, and virtual member meetings.

Status: *Chapter 305, Statutes of 2024*

AB 2422 (Grayson)
Department of Financial Protection and Innovation: online resources: financial abuse: domestic violence victims.

Requires, by January 1, 2027, the Department of Financial Protection and Innovation (DFPI) to make available to financial institutions and the general public online resources on specified topics related to financial abuse of victims of domestic violence.

Status: *Chapter 650, Statutes of 2024*

AB 2981 (Chen)
Finance lenders: exemption from licensure.

Deems as licensed a lender that does not make or broker residential mortgage or consumer loans if the lender makes five or fewer commercial loans annually and the principal amount of each loan made in the preceding and current calendar year exceeds $350,000.

Status: Held in Assembly Appropriations Committee

AB 3148 (Chen)
Deferred deposit transactions: assessments.

Modifies the formula for the annual assessment paid by California Deferred Deposit Transaction Law licensees.

Status: *Chapter 252, Statutes of 2024*

SB 484 (Newman)
Escrow agents: customer contact centers.

Authorizes a licensed escrow agent to designate an employee to perform work on the licensee's behalf at a remote location.

Status: Held in Assembly Appropriations Committee

SB 985 (Ochoa Bogh)
Check Sellers, Bill Payers and Proraters Law: exemption: nonprofit community service organizations.

Increases the amount of fees a nonprofit community service organization may collect while remaining exempt from the Check Sellers, Bill Payers, and Proraters Law.

Status: *Chapter 178, Statutes of 2024*

DIGITAL ASSETS

These bills affect the market for digital assets such as crypto assets and non-fungible tokens. The growth of digital assets in recent years has led to legislation tailored to these new digital products.

AB 39 (Grayson)
Digital financial asset businesses: regulatory oversight.

Establishes a licensing and regulatory framework, administered by the Department of Financial Protection and Innovation, for digital financial asset business activity.

Status: *Chapter 792, Statutes of 2023*

AB 1336 (Low)
Nonfungible token marketplaces.

Requires a nonfungible token (NFT) marketplace to maintain an information security program and to provide specified disclosures, including information related to fees and taxes, to California residents engaging with the NFT marketplace.

Status: Held in Assembly Privacy and Consumer Protection Committee

AB 1934 (Grayson)
Digital financial asset businesses.

Delays the operative date of the Digital Financial Assets Law and clarifies provisions in that law related to stablecoins.

Status: *Chapter 945, Statutes of 2024*

SB 401 (Limón)
Digital financial asset transaction kiosks.

Provides for the regulation of digital financial asset transaction kiosks, including limits on the total amount of transactions in a day, fee limitations, and a requirement to provide a receipt for every transaction.

Status: *Chapter 871, Statutes of 2023*

MISCELLANEOUS

These bills affect other areas of financial services not formally regulated by the Department of Financial Protection and Innovation through specific licensure or registration programs. These bills may affect consumers or lenders but do not neatly fit in other categories.

AB 1143 (Chen)
Military: lending protections.

Clarifies the permissibility of guaranteed asset protection waivers for motor vehicle loans covered by existing consumer protections for veterans and members of the military.

Status: Held in Assembly Banking and Finance Committee

AB 1587 (Ting)
Financial transactions: firearms merchants: merchant category code.

Requires financial institutions that facilitate payment card transactions to implement a merchant category code for firearms merchants.

Status: *Chapter 247, Statutes of 2023*

AB 2231 (Gipson)
Pawnbrokers: education.

Establishes, until January 1, 2029, the California Pawnbroker Education Council for the purposes of creating a required curriculum for licensed pawnbrokers.

Status: *Chapter 223, Statutes of 2024*

SB 1198 (Roth)
Pawnbrokers: fees and charges.

Increases the limit on certain fees collected by a pawnbroker and allows a pawnbroker to collect a new remote transaction fee.

Status: *Chapter 185, Statutes of 2024*

REAL ESTATES TRANSACTIONS

These bills affect transactions related to real estate and related processes, such as mortgage servicing or foreclosure.

AB 2424 (Shiavo)
Mortgages: foreclosure.

Adds procedural requirements to the foreclosure process, including notification requirements intended to help a borrower find assistance in navigating the foreclosure process, additional time before a foreclosure auction commences for a borrower who attempts to sell their property, and a minimum sales price, in relation to fair market value, for the initial foreclosure auction.

Status: *Chapter 311, Statutes of 2024*

AB 3108 (Jones-Sawyer)
Business: mortgage fraud.

Expands the acts constituting mortgage fraud and prohibits a person from committing mortgage fraud to avoid complying with specified rules.

Status: *Chapter 517, Statutes of 2024*

SB 455 (McGuire)
State of emergency: mortgage servicers: disasters.

Provides responsibilities for transferor and transferee mortgage servicers related to a mortgage secured by real property located within the geographic limits of a proclaimed emergency.

Status: *Chapter 873, Statutes of 2023*

SB 1146 (Wilk)
Mortgages.

Makes technical and clarifying changes to laws related to mortgage servicing and non-judicial foreclosure processes.

Status: *Chapter 601, Statutes of 2024*

STATE AND LOCAL GOVERNMENT FINANCE

These bills govern how state or local agencies invest or manage funds or investments.

AB 2457 (McCarty)
Sacramento Municipal Utility District: nonstock security.

Extends the sunset date of the Sacramento Municipal Utility District's (SMUD) existing nonstock security program by ten years and doubles the number of acquisitions SMUD can make under this program from three to six.

Status: *Chapter 400, Statutes of 2024*

AB 2618 (Chen)
Surplus funds: investment.

Extends, until January 1, 2031, the authority for a local agency to invest up to 50% (rather than 30%) of its surplus funds in deposits at a commercial bank, savings bank, savings and loan association, or credit union under specified conditions.

Status: *Chapter 239, Statutes of 2024*

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STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0115

California Legislature

Joint Oversight Hearing
Senate Committee on Banking and Financial Institutions
Assembly Committee on Banking and Finance

Harmful Innovation: What FTX's Collapse Means for Consumers and California's Approach to Crypto.
Wednesday, February 22, 2023
10 AM, 1021 O Street, Room 1100

Agenda

1. Welcome and Opening Remarks

    a) **Assemblymember Tim Grayson**, Chair, Assembly Committee on Banking and Finance

    b) **Senator Monique Limón**, Chair, Senate Committee on Banking and Financial Institutions

2. Update on State and Federal Policy

    a) **Avy Mallik**, General Counsel, Department of Financial Protection and Innovation

    b) **Brian Korn**, Partner, Manatt, Phelps and Phillips

3. How Should California Regulate Crypto? A Stakeholder Perspective

    a) **Robert Herrell**, Executive Director, Consumer Federation of California

    b) **Sheila Warren**, Chief Executive Officer, Crypto Council for Innovation

4. Public Comment

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Joint Oversight Hearing
Senate Committee on Banking and Financial Institutions
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Harmful Innovation: What FTX's Collapse Means for Consumers and California's Approach to Crypto.
Wednesday, February 22, 2023
10 AM, 1021 O Street, Room 1100

Purpose of the hearing:

The Senate Committee on Banking and Financial Institutions and the Assembly Committee on Banking and Finance ("the Committees") will convene an oversight hearing on February 22, 2023, to evaluate the state's approach to regulating the provision of digital financial asset products and services (also known colloquially as the "crypto industry"). Last year, the crypto industry experienced a series of high-profile bankruptcies that negatively affected California consumers, in addition to the seemingly constant stream of hacks, scams, and frauds that plague this relatively new industry. The purpose of the hearing is to review the state's recent actions in regulating the crypto industry and to examine how the state can act in the future to better protect Californians from financial harm perpetrated by the crypto industry.

During the hearing, the Committees will hear from the following witnesses:

- Avy Mallik, General Counsel, Department of Financial Protection and Innovation
- Brian Korn, Partner, Manatt, Phelps and Phillips
- Robert Herrell, Executive Director, Consumer Federation of California
- Sheila Warren, Chief Executive Officer, Crypto Council for Innovation

What are digital financial assets?

The term "digital financial asset" describes a range of money-like, digital representations of value that are not considered legal tender and are not issued by a central bank of a sovereign nation. Similar terms used to describe this concept are *cryptocurrencies*, *digital currencies*, *virtual currencies*, *crypto assets*, and *digital assets*, among others.

The first and most widely known digital financial asset is Bitcoin, which was created in 2009. The stated motivation behind Bitcoin was the creation of a peer-to-peer version of electronic cash. In the digital world, there was no method – until the creation of Bitcoin and the blockchain technology that underpins it – to ensure that a digital representation of value had not been copied and sent to multiple parties without relying on a trusted third party to mediate the transaction between payor and payee. In the years since Bitcoin's creation, thousands of digital financial assets have been created, with some of the most prominent ones being ether (created by and recorded on the Ethereum blockchain), tether, USD Coin, XRP (issued by Ripple), and Dogecoin.

A large majority of digital financial assets interacts with or depends on distributed ledger technology. Distributed ledger technology (DLT) describes a database storage system that is spread across a network, rather than attached to a common processing unit, that provides a protocol for network participants to arrive at a common understanding of the shared facts to record in the database system – even though those network participants may not know one another. The most prominent form of DLT in the digital financial asset space is the *blockchain*, which allows for network participants to add a new group of transactions (a "block") to the database. By linking the blocks together in order from the oldest block to the newest block, one can create a "ledger" that shows the current balances of all accounts that have engaged in transactions. This technology replaces the functions of a centralized bookkeeper, like a bank or money transmitter, who records how money changes hands and updates the balances of accountholders after transactions are completed.

How and why do people use digital financial assets?

In spite of descriptions that crypto is a "peer-to-peer" system, many crypto-related activities are conducted by consumers primarily through intermediaries, especially trading platforms. These intermediaries provide similar functions within the crypto financial system as traditional intermediaries – such as banks, money transmitters, and stock brokers and exchanges – provide in the traditional financial system. Similar to the traditional financial system, crypto intermediaries are trusted by their customers to operate honestly, safely, and transparently with customers' assets. Unlike the traditional system, however, crypto intermediaries are operating outside of federal and state laws designed to protect consumers and investors through prudential supervision and regulation, disclosure requirements, and segregation of activities to address potential conflicts of interests. Examples of prominent crypto intermediaries include Coinbase, Kraken, FTX, Celsius, Circle, Binance, Crypto.com, and Gemini.

People in the United States use digital financial assets primarily as a speculative activity, betting on whether a particular asset will appreciate relative to the US dollar.[1] Unlike traditional stocks and bonds, many digital financial assets provide no claim to an underlying stream of cash flows or physical assets, so purchasers of digital financial assets base their speculations on how they believe others will value a given asset in the future. In other words, many purchases of digital financial assets are based on the belief that someone else will buy the asset in the future at a higher price.

In addition to speculation, relatively smaller use cases for US-based users of digital financial assets are privacy and payments. Blockchain technology allows permissionless and pseudonymous access for users to transfer digital assets, which attracts users with strong preferences for shielding their identities from banks and other financial intermediaries who are charged with aiding the federal government's efforts to combat money laundering and the financing of terrorism. Additionally, there are limited use cases where people deeply involved in the crypto ecosystem transact with crypto in exchange for goods and services, but this use case is significantly smaller than speculative transactions.

[1] https://www.surveymonkey.com/curiosity/cnbc-invest-in-you-august-2021/

2022: the year crypto crashed

The notorious volatility of the crypto market made major headlines in 2022. The year began on a high note for many industry participants with token prices near all-time highs and venture capital investment pouring into the space. Awareness of crypto was also at an all-time high among the general public, buoyed by an eye-popping marketing push capped by a reported $39 million spent on television ads during last year's Super Bowl. But the good times were short-lived.

A few weeks after the Super Bowl ad blitz, North Korean hackers exploited a top crypto application, stealing over $600 million of digital assets.[2] Several weeks later, the so-called "stablecoin" TerraUSD was unable to maintain its 1:1 peg with the US dollar, precipitating a $60 billion crash that reverberated across the crypto ecosystem. By mid-May, the Terra collapse had triggered an estimated $300 billion loss industrywide.[3]

In June, crypto companies with exposure to Terra began to fail. Celsius, a crypto lender that marketed itself as an alternative to traditional banks, froze withdrawals and would eventually file for bankruptcy the following month. Three Arrows Capital, a crypto hedge fund, was the next shoe to drop as it was unable to repay its debt obligations, which triggered Voyager, another crypto lender, to file for bankruptcy in early July. BlockFi, a third crypto lender, was saved from bankruptcy by a loan from FTX, a reprieve that would prove only temporary for the lender and its customers as the company would eventually file for bankruptcy in November.

By mid-summer, the fears of continued contagion had begun to calm, and crypto companies responded to the lower level of token prices and trading volume by cutting their workforces and operating costs. While business activity slowed, hackers remained active, especially in the decentralized finance ("DeFi") space. Blockchain analytics firm Chainalysis reported that October 2022 was the "biggest month in the biggest year for hacking activity" with $776 million stolen in hacking attacks.[4] By the end of the year, an estimated $3.8 billion was lost to crypto hackers. At the forefront of the charge, North Korean-linked hackers were responsible for over $1.65 billion in stolen crypto in 2022, which many experts believe are being used to fund North Korea's nuclear weapons program.[5]

FTX fraud revealed

As if the problems of the crypto industry had not been sufficiently exposed in the first ten months of the year, November 2022 revealed the largest crypto fraud to-date with the meltdown of Sam Bankman-Fried's FTX and Alameda Research empire. Over the previous year, Bankman-Fried had been the most prominent face of the crypto industry in U.S. policy circles – he testified to Congressional committees, shaped proposed legislation, and lobbied regulatory agencies to amend their rules to allow his firms to operate in regulated commodity markets. Bankman-Fried and his business partners were also major political donors with nearly $80 million donated to political campaigns and committees from September 2020 to November 2022.[6] The full scope of Bankman-Fried's attempts to influence policy and politics

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[2] https://www.coindesk.com/tech/2022/03/29/axie-infinitys-ronin-network-suffers-625m-exploit/
[3] https://www.bloomberg.com/news/articles/2022-05-19/luna-terra-collapse-reveal-crypto-price-volatility
[4] https://blog.chainalysis.com/reports/2022-biggest-year-ever-for-crypto-hacking/
[5] https://theconversation.com/north-koreas-nuclear-program-is-funded-by-stolen-cryptocurrency-could-it-collapse-now-that-ftx-has-195559
[6] https://www.usatoday.com/story/news/politics/2022/12/16/ftx-reclaims-sam-bankman-fried-political-donations/10902327002/

may never be known, as he admitted to donating to both political parties in ways both transparent and secret, with some secret donations being disguised in allegedly illegal ways.[7]

Owing both to his activities in political lobbying and advocacy and his stature within the crypto industry as owner of one of the largest crypto trading platforms in the world, the revelations of November 2022 shook the crypto industry to its core. At their essence, the closely tied companies that Bankman-Fried controlled, led by FTX and Alameda Research, were little more than a fraudulent scheme to steal money from customers and investors. While the specific details of the scheme are currently under investigation by law enforcement across the globe, Bankman-Fried and his co-conspirators apparently had been duping their customers and investors for years and using their customers' assets to make risky bets in crypto markets and to support lavish spending on advertising, international real estate, and political contributions.

The full repercussions of Bankman-Fried's alleged fraud remain unclear. FTX is currently navigating the bankruptcy process, but it is likely that the company owes billions of dollars more to its customers and creditors than the value of assets it holds.[8] Bankman-Fried faces charges of fraud, conspiracy, campaign finance law violations, and money laundering, and several business partners and employees will likely enter plea deals or be charged with crimes.[9] But while the final accounting of harms and consequences remains to be determined, it seems likely that the crypto industry and the laws and regulations that apply to it will look markedly different because of Bankman-Fried's and his co-conspirators' behavior.

How has the state of California responded to the crypto collapse?

Since its inception, the crypto industry has operated primarily outside of state and federal regulatory frameworks that apply to similar products and services in the traditional financial system. In some instances, the choice to operate outside of the law has been intentional with businesses knowingly accepting risk of regulators' enforcement. In others, businesses may unknowingly have found themselves in a legal gray area that is difficult to navigate. Irrespective of intent, the crypto industry appears to prioritize product development (i.e., what products or services can we create using blockchain technologies) over legal compliance (i.e., how can we ensure that our products or services do not run afoul of any laws), resulting in clashes with regulators and policymakers.

Until 2022, the state of California had not taken a proactive stance on regulating crypto, but the activities in the crypto market last year sparked action from the Newsom Administration ("Administration") and Legislature. The remainder of this section summarizes the Administration's activities pursuant to an executive order issued in May 2022 and concludes with a brief summary of actions taken by the Legislature.

<u>Governor Newsom's executive order</u>

On May 4, 2022, Governor Newsom issued Executive Order N-9-22 ("executive order") with the aim of "creat[ing] a transparent regulatory and business environment for web3 companies which harmonizes federal and California approaches, balances the benefits and risks to consumers, and incorporates

[7] https://time.com/6241262/sam-bankman-fried-political-donations/
[8] https://www.coindesk.com/policy/2023/01/11/ftx-has-recovered-over-5b-in-assets-bankruptcy-attorney-says/
[9] https://www.axios.com/2022/12/13/sam-bankman-fried-criminal-fraud-money-laundering

California values such as equity, inclusivity, and environmental protection."[10] The following paragraphs summarize the content of the executive order and the Administration's progress in implementing it.

The executive order begins with declarations suggesting the Governor's views that the crypto industry has great potential for the global economy, that California is uniquely positioned to benefit from the industry's growth, and that the state should minimize regulatory uncertainty with the goal of establishing a comprehensive, thoughtful, and harmonized regulatory and business environment for crypto assets. The executive order then outlines the activities of executive branch agencies focused on four workstreams: collecting input from stakeholders, creating a regulatory approach to crypto assets, exploring and establishing public-serving use cases, and building research and workforce pipelines.

Of particular interest to the Committees, the executive order tasked the Department of Financial Protection and Innovation (DFPI) with the following:

- Engage with federal agencies and work with other state regulators to promote a common regulatory approach.
- Develop guidance and, as appropriate, regulatory clarity and supervision of crypto companies based on public comments and information provided voluntarily by such companies.
- Provide guidance to state banks and credit unions regarding crypto assets.
- Initiate enforcement actions as appropriate and enhance complaint handling efforts.

Other state agencies tasked with activities under the executive order include the Governor's Office of Business and Economic Development ("GO-Biz") and Government Operations Agency.

In December 2022, the Governor's Office released an interagency report reflecting the Administration's work to implement the executive order.[11] The report summarizes stakeholder input received pursuant to an outreach process led by GO-Biz. The input summarized in the report is not attributed to any particular individuals, companies, or organizations. Where input from stakeholders conflict with one another, there are no clear recommendations for how such conflict should be resolved. Furthermore, input from stakeholders appears to be taken at face value, even where specious assertions or assumptions are made. Overall, it is not clear how the input should be considered in developing public policy.

The report summarizes DFPI's work aimed at creating clear and responsible regulatory frameworks. The department met with a variety of federal regulatory agencies and other states' financial regulators to align with government agencies beyond California. DFPI also solicited public comments for feedback on how California should regulate the crypto industry. Additionally, the department enhanced its consumer education and complaint handling processes in light of turmoil in the crypto markets. And in response to illegal behavior, DFPI initiated enforcement actions to stop four unregistered securities issuers, 13 unlawful investment schemes, and referred two crypto issues to law enforcement agencies.

Framed as "next steps," the report provides the following six recommendations to the Governor:

- Continue engagement with stakeholders.

[10] https://www.gov.ca.gov/2022/05/04/governor-newsom-signs-blockchain-executive-order-to-spur-responsible-web3-innovation-grow-jobs-and-protect-consumers/
[11] https://www.govops.ca.gov/wp-content/uploads/sites/11/2022/12/Blockchain-Report-12-2-22.pdf?emrc=838140

- Promote consumer protections and consumer education regarding blockchain and crypto products.
- Work with the Legislature to identify gaps and clarify statutory authority as needed with respect to regulating crypto assets.
- Explore and develop more government use cases.
- Encourage more environmentally efficient blockchain technologies and environmental protections.
- Leverage California's unparalleled higher education systems to build a best-in-class workforce and drive additional research and innovation.

To better understand the progress reported under the executive order and how the Administration intends to follow through on next steps, the Committees may consider asking the following questions during the hearing:

1. How should the Committees consider stakeholder input that is not attributed to any specific sources and devoid of context within a deeper policy conversation? In other words, of what value is the stakeholder input provided in the progress report?
2. Going forward, how can the Administration ensure that stakeholder input be communicated in a clear and meaningful way to the Legislature?
3. The executive order contemplates alignment of California's regulatory approach with the federal government's. With a divided Congress and a Biden administration that appears increasingly skeptical of the crypto industry, how does the Administration intend to maintain alignment with the federal government?
4. Does the Administration intend to work with the Legislature on developing a state-level regulatory approach to crypto assets, as recommended by the progress report? If so, how does the Administration expect to engage with the Legislature on this topic?
5. Has the Administration considered any specific policy options to incentivize more environmentally efficient blockchain technologies, and if so, how does the Administration plan to pursue any of those policy options?

<u>Legislative proposal: licensing framework</u>

As the Administration conducted its activities under the executive order, the Legislature considered its own response to the crypto chaos of 2022. In June 2022, Assemblymember Grayson introduced AB 2269 which would have established a licensing law for a broad set of crypto-related business activities. Licensing is a common approach in financial services regulation to ensure that bad actors are prevented from doing business in a covered jurisdiction, and the bill proposed a licensing program, modeled after a model law drafted by the Uniform Law Commission as well as provisions from New York's BitLicense program and federal securities regulations, that was tailored to crypto companies and the specific risks for investors and consumers. Major provisions included:

- *Permissioned entry and ongoing supervision*: Before interacting with California consumers and retail investors, crypto companies would be required to apply for and obtain a license to operate. This initial gatekeeping can serve to keep bad actors out of the California market, just as New York's BitLicense program kept FTX, Celsius, Voyager, and other now-bankrupt companies from being able to legally provide products to New Yorkers. In addition to upfront gatekeeping, AB 2269 would have authorized DFPI to conduct ongoing supervision to examine crypto companies for compliance with consumer protection laws and clear authority to pullback those companies' license to operate if they broke the law.

- *Financial protection*: AB 2269 would have established various requirements to protect consumers and retail investors from losses, such as surety bond and capital requirements and segregation of assets to protect customer funds in a bankruptcy process.
- *Customer service standards*: AB 2269 would have required companies to maintain a customer service line through which customers could contact the company for help.
- *No unbacked stablecoins*: The TerraUSD collapse in May 2022 not only set off a series of company failures within the crypto industry, but it directly caused the loss of billions of dollars of assets held by consumers and retail investors. Inspired by the collapse of TerraUSD, AB 2269 would have prohibited crypto companies from offering so-called "stablecoins" that were not backed 1:1 with high quality liquid assets.

The Legislature broadly supported AB 2269, with the Senate passing the bill 31-6 and the Assembly supporting it 71-0. The bill was supported by a broad coalition of consumer groups and trade associations representing banks and credit unions and was opposed by groups representing crypto industry stakeholders. AB 2269 was vetoed by the Governor, whose veto message read in part:

> On May 4, 2022, I issued Executive Order N-9-22 to position California as the first state to establish a transparent regulatory environment that both fosters responsible innovation, and protects consumers who use digital asset financial services and products - all within the context of a rapidly evolving federal regulatory picture. Over the last several months, my Administration has conducted extensive research and outreach to gather input on approaches that balance the benefits and risk to consumers, harmonize with federal rules, and incorporate California values such as equity, inclusivity, and environmental protection.
>
> It is premature to lock a licensing structure in statute without considering both this work and forthcoming federal actions. A more flexible approach is needed to ensure regulatory oversight can keep up with rapidly evolving technology and use cases, and is tailored with the proper tools to address trends and mitigate consumer harm. Additionally, standing up a new regulatory program is a costly undertaking, and this bill would require a loan from the general fund in the tens of millions of dollars for the first several years. Such a significant commitment of general fund resources should be considered and accounted for in the annual budget process.
>
> I am committed to working collaboratively with the Legislature to achieve the appropriate regulatory clarity once federal regulations come into sharper focus for digital financial assets, while ensuring California remains a competitive place for companies to invest and innovate.

Since the Governor's veto, the crypto industry has continued to experience significant volatility and upheaval. The most notable event was the collapse of FTX, but other significant events include the bankruptcies of major crypto companies BlockFi and Genesis. Moreover, the federal policy environment has only grown less clear, with a Congress divided and a Biden Administration that is increasingly cracking down on the crypto industry.

In light of this uncertainty and the continued pervasive risks for California consumers, the Legislature remains interested in passing robust consumer protection laws that provide rules of the road for industry and entrepreneurs. In the current legislative session, Assemblymember Grayson introduced AB 39, a modified version of AB 2269, and Senator Limón introduced SB 401, a measure to establish rules for so-called crypto ATMs or kiosks.

Given the impending debates around legislative proposals and the best strategy to protect California consumers, the Committees may be interested to hear feedback from witnesses on the following:

1. What has the Administration learned from the process of implementing the EO that the Administration did not know when the EO was published on May 4, 2022?

2. Given the litany of business failures and outright fraud that perpetrated throughout the crypto industry in 2022, should California take more aggressive action in bringing the crypto industry under greater oversight?

3. Unlike the innovation that California fostered in the personal computing, software, and internet industries, the crypto industry relies on everyday Californians entrusting them with their hard earned savings. Can the crypto industry be viewed through the same lens as Intel, Apple, Salesforce, and Yahoo!? Or is the crypto industry better viewed through the same lens as financial services companies who are required to obtain licenses or charters and be regularly subject to oversight with the aim of preventing consumers' funds from being gambled away?

4. Is a licensing program, like what was proposed in AB 2269, appropriate and necessary? What are the benefits and drawbacks of a licensing approach compared to the status quo?

How has the federal government responded to the crypto collapse?

As cited in Governor Newsom's executive order, President Biden issued on March 9, 2022, an executive order that initiated a whole-of-government assessment of key issues raised by crypto assets and related financial technologies. In the second half of 2022, the White House published several reports that generally focus on the risks created by the crypto industry and signaled that an increase in enforcement actions may be an important step to mitigate those risks.

In January 2023, the White House published its roadmap to mitigate risks in the crypto industry.[12] The focus of the Biden administration is "on continuing to ensure that cryptocurrencies cannot undermine financial stability, to protect investors, and to hold bad actors accountable." The Biden administration signals its intent to use all authority vested in the Executive Branch to mitigate the risks of crypto and calls for Congress to do more to protect consumers, investors, and our national interests by:

- Expanding regulators' powers to prevent misuses of customers' assets and to mitigate conflicts of interests.
- Strengthening transparency and disclosure requirements for crypto companies.

[12] https://www.whitehouse.gov/nec/briefing-room/2023/01/27/the-administrations-roadmap-to-mitigate-cryptocurrencies-risks/

- Strengthening penalties for violating illicit-finance rules and prohibit crypto companies from tipping off criminals.
- Limiting crypto-related risks to the financial system.

In line with President Biden's direction, federal regulators have significantly strengthened and accelerated their response to crypto-related risks in 2023. The top three bank regulators jointly issued a sharp warning on January 3rd to banks about crypto activities, which stated that issuing or holding crypto is "highly likely to be inconsistent with safe and sound banking practices."[13] The Federal Reserve followed on January 27th with a rejection of an application from a crypto-focused bank to gain access to the central bank's payment system.

In addition to the federal banking regulators, the Securities and Exchange Commission (SEC) has stepped up its efforts to enforce laws designed to protect investors and bring transparency to capital markets. The SEC has brought four cases in 2023 against prominent crypto companies Kraken, Genesis, Gemini, and Nexo, as well as charges against the company behind the Terra/Luna ecosystem that crashed in May 2022. The agency also proposed a rule in February 2023 that would strengthen safeguards around the custody of crypto assets.

Congress, on the other hand, does not appear to be nearing any particular agreement on how to address crypto-related risks. Several bills received considerable attention in 2022, including a bill to regulate stablecoins and a bill to regulate the spot markets of certain crypto assets. Neither bill was taken up by either the House or the Senate. In the current Congress, several crypto-related bills have been introduced, but the prospects of any becoming law are unclear given the partisan divide in leadership and increased skepticism of the crypto industry due to the bankruptcy of FTX.

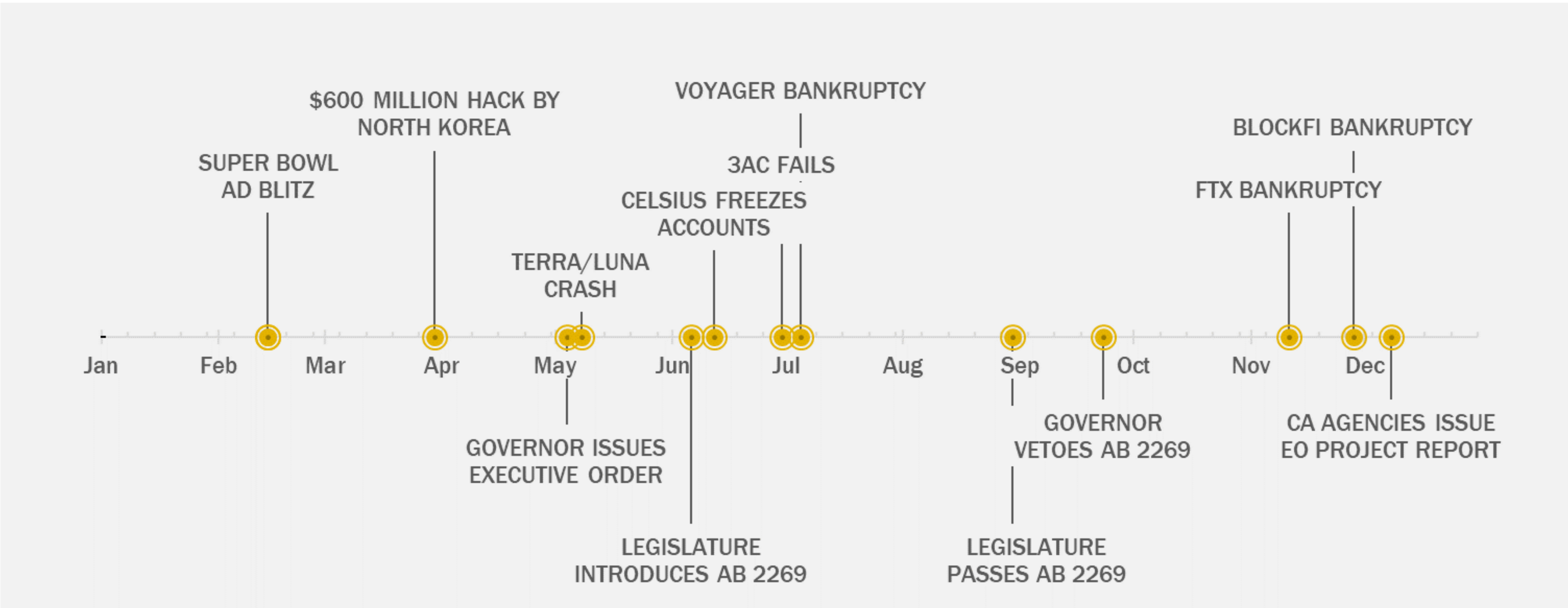
The development of federal law – whether through enacting new legislation, promulgating new regulations, or the interpretation and enforcement of existing laws – may affect how California decides to regulate the crypto industry. Furthermore, Governor Newsom's executive order indicates that California should harmonize its approach with the federal approach. As such, the Committees may ask witnesses to respond to the following to better understand the path forward for California:

1. What is the likelihood and nature of any federal regulation of digital financial assets that has not already been enacted by Congress or promulgated by federal regulatory agencies?
2. With the aggressive posture of the federal government in addressing crypto-related risks, how can California harmonize its approach and complement the feds in working towards President Biden's objectives to ensure that crypto cannot undermine financial stability, to protect investors, and to hold bad actors accountable?
3. If Congress does not quickly work towards President Biden's request to expand regulators' powers to prevent misuses of customers' assets, to mitigate conflicts of interests, and to bring more transparency to crypto markets, what can California do to step into gaps left by a divided Congress?

[13] https://www.occ.gov/news-issuances/news-releases/2023/nr-ia-2023-1a.pdf

2022: the year crypto crashed

Major events in the crypto industry and California's policy response



Current Events in Federal Crypto Regulation

Presentation to the California State Assembly Committee on Banking and Finance and Senate Committee on Banking and Financial Institutions

February 22, 2023

Agenda

- Existing Legal Framework
- Multiple Agency Madness
- Recent Headlines
- Helping the Industry Help Consumers

Existing Legal Framework

What do Harry Truman and Florida Orange Groves Have in Common?

- The **Securities Exchange Commission** (SEC) is the primary regulator
- All securities offered and sold in the United States must be registered with the SEC, unless an exemption applies. Registration can be onerous.
- What is a security? The SEC applies the 1946 *Howey* Supreme Court ruling:
  - (1) An investment of money,
  - (2) in a common enterprise,
  - (3) with a profit expectation,
  - (4) where profits are derived from the efforts of others.
- Or the "*Reves*" test: does the instrument "resemble" a security?
- Broker-Dealer regulation applied to token exchanges
- Registered Investment Adviser (RIA) rules proposed to encompass token custodians

Existing Legal Framework

Back to the Futures (and also the Options)

- The SEC is not the only agency with oversight of cryptocurrencies and the blockchain ecosystem
- The **Commodity Futures Trading Commission** (CFTC) has taken steps to regulate Bitcoin
  - Declared Bitcoin a “commodity” in 2014
  - Launched enforcement actions against unregistered Bitcoin futures exchanges
  - Issued warnings on virtual currency valuation and volatility
  - Proposed “heightened review” for virtual currency contracts
  - Problem of modernizing the Commodity Exchange Act to apply to spot trading

Existing Legal Framework

Federal Blockchain Regulation Blocked (for now)

- Reform efforts in Congress have not advanced (e.g., the Lummis-Gillibrand Responsible Financial Innovation Act)
- Biden Executive Order (No. 14067, "Ensuring Responsible Development of Digital Assets") resulted in research and reporting, but little tangible action so far
- But crypto-smart Rep. Patrick McHenry (R-NC) now chairs the House Financial Services Committee and recently created a new subcommittee on Digital Assets, Financial Technology and Inclusion (Rep. French Hill (R-AR), chair)

Multiple Agency Madness

Multiple Agencies Step into the Breach

- Department of the Treasury and Office of the Comptroller of the Currency (OCC)
  - Stablecoins
- Securities Exchange Commission (SEC)
  - Tokens, Stablecoins (*Paxos*, *Binance*), Staking (*Kraken*)
- Department of Justice (DOJ) and the Financial Crimes Enforcement Network (FinCEN)
  - Bank Secrecy Act (anti-money laundering), USA PATRIOT Act ("know your customer")
- State Regulators
  - BitLicense (New York State Department of Financial Services)
  - Money Transmitter Licenses (states)
  - Lender Licensing (federal and state banking agencies)

FTX and BlockFi and Celsius. Oh My!

- FTX – Simple fraud (allegedly); not really a crypto story
- BlockFi – Failure to Register a securities offering
- Celsius, Voyager and Gemini – Investigations Continue
- As do the Investor Impacts:
  - Billions lost in 2022 due to market declines and malfeasance
  - Investors disenchanted with lack of safeguards
  - Individual cases settle, resulting in bad industry precedent (e.g., Kim Kardashian, Paul Pierce, BlockFi)

FTX GEMINI VOYAGER BlockFi Celsius

Helping the Industry Help Consumers

Reward the Good (and the Good Faith), Weed Out the Bad Actors

- Regulatory Certainty
  - The current regulatory environment is uncertain and haphazard (regulation by enforcement)
    - Tezos, BlockFi – Accounts earning interest are investment contracts
    - Kraken – Staking accounts are securities

- Regulators Risk Being Too Broad (or Too Narrow)
  - Greater Collaboration – Opportunities to be heard without being fined
  - Greater Coordination – Interoperability with other state and international regulations and to prevent jurisdictional flight

Thank You!

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Testimony of Sheila Warren, Chief Executive Officer, Crypto Council for Innovation

Joint Hearing of the California Assembly Banking & Finance Committee and the Senate Banking & Financial Institutions Committee - "Harmful Innovation: What FTX's Collapse Means for Consumers and California's Approach to Crypto"

I. Introduction

Thank you for the opportunity to testify today on both the tremendous benefits and opportunities associated with the adoption of digital assets in the state of California. I am grateful for the engagement and leadership shown by so many on both committees.

I am pleased to represent the Crypto Council for Innovation (CCI) – a global alliance of industry leaders across the digital assets and Web3 space. We use an evidence-based approach to support governments worldwide that are shaping and encouraging the responsible regulation of this innovative technology. And, we are proud to have many California-based members.

I myself am a native Californian, born and raised in Huntington Beach, who has lived in San Francisco for almost 20 years. My three children are native San Franciscans, and our ties to the Golden State are deep. Over the past two decades, my time as an attorney, entrepreneur, product builder, and NGO executive has focused on the intersection of technology, law, diversity & inclusion, civil rights and Web3. This journey took me from corporate law at Cravath Swaine & Moore to the San Francisco nonprofit TechSoup to building out the World Economic Forum's Blockchain and Digital Assets team in the Presidio. I have also served in many advisory roles including for the Crypto Research and Design Lab, the OECD and World Bank, and the California Blockchain Working Group.

CCI is a global alliance of industry leaders in the digital asset and Web3 sectors, which serves to educate consumers and policymakers and advocate for policy that spurs responsible innovation. Our members include Andreessen Horowitz, Block, Coinbase, Electric Capital, Fidelity Digital Assets, Gemini, Paradigm and Ribbit Capital. We believe that trusted partnership between government and business stakeholders is key to crafting inclusive policy that benefits consumers and industry alike.

Testimony Roadmap

This testimony has five parts. First, I discuss the current moment and what it means for crypto policymaking and regulation. Then, I provide examples of crypto in action. Third, I cover further

B

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Informational Hearing
Assembly Committee on Banking and Finance

The Collapse of Silicon Valley Bank: What Happened and What it Means for Banking Regulation

Monday, April 10, 2023
2:30 p.m. - State Capitol, Room 444

Agenda

1. Welcome and Opening Remarks

    a) **Assemblymember Tim Grayson**, Chair, Assembly Committee on Banking and Finance

    b) **Comments from other Committee Members**

2. Overview of Silicon Valley Bank (SVB) Collapse and Federal and State Response

    a) **Todd H. Baker**, Senior Fellow, Richman Center at Columbia University

    b) **Michele Alt,** Partner at the Klaros Group and former Office of the Comptroller of the Currency (OCC) counsel

3. Public Comment

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BRIEFING DOCUMENT
The Collapse of Silicon Valley Bank: What Happened and What it Means for Banking Regulation

Monday, April 10, 2023 2:30 PM, Room 444
Prepared by Luke Reidenbach

Purpose of the hearing:

Today's hearing will provide a preliminary review of the March 2023 collapse of Silicon Valley Bank (SVB), the second largest bank failure in US history. SVB's failure, caused by a bank run amid concerns about the bank's solvency, raises important questions about the adequacy of banking regulations and the effectiveness of banking supervision.

SVB played a pivotal role in California's tech industry. That a bank so central to California's economy failed so dramatically is a sobering reminder that industry, policymakers, and regulators must remain vigilant in identifying risks. And, they must be empowered to address those risks.

Importantly, SVB is not the only California bank that has struggled in the current economic environment. March 2023 also saw the voluntary winding down of Silvergate Bank and the industry-led interventions to shore up First Republic Bank. Identifying the problems specific to SVB, Silvergate, and First Republic will be an important area of study moving forward.

This hearing will function as a prologue to a more robust review of the state's supervision of state-chartered financial institutions like SVB. Both the Department of Financial Protection and Innovation (DFPI) and the Federal Reserve, who shared supervision of SVB, have announced they will release reports in May 2023 about that supervision. This committee will reconvene following the release of those reports.

Today, committee members will hear from two experts who will review how SVB collapsed, how the government responded, and what may come next:

- **Todd H. Baker**, Senior Fellow, Richman Center at Columbia University.
- **Michele Alt**, Partner at the Klaros Group and former Office of the Comptroller of the Currency (OCC) counsel.

SVB COLLAPSE: SUMMARY OF EVENTS

Overview

Banks typically make money from fees they charge to customers, the interest they earn on securities they hold, and the difference between the interest rate they pay for deposits and the interest rate they receive on the loans they make. Because of the complex nature of banking and finance, a myriad of risks or complications can emerge that jeopardize the stability of the bank or the broader system. In addition to regulations that make the banking system safe, a bank's management plays an essential role in monitoring and managing risks to their business model and to their customers. SVB's failure is due, in part, to its failure to manage such risks.

For California, SVB was not just any bank. SVB was widely perceived as a vital component of California's tech economy, offering tailored products and services to venture capitalists (VCs), technology firms, entrepreneurs and start-ups. SVB marketed itself as "the financial partner of the innovation economy," and one venture capitalist described it as "the most important capital provider to tech startups and the biggest supporter of the community."[1]

SVB's reliance on start-ups and VC customers meant that the bank's fortunes tracked closely with those of tech industry. Up until just a month ago, this close relationship worked well: Between 2019 and 2022, amid a booming tech economy, SVB's assets tripled, growing from around $60 billion to $209 billion, becoming the 16th largest bank in the nation. SVB used that surge in deposits to invest in medium-and long-term securities like government bonds, which are typically considered safe.

However, SVB's weaknesses began to emerge after the Federal Reserve raised interest rates to combat persistent inflation. Specifically, the Federal Reserve warned SVB leadership about the bank's "interest rate risk," which is a type of risk stemming from a changing interest rate environment.[2] In SVB's case, the market value of its long-term securities investments was declining, which means the bank would sell these investments at a loss if they were compelled to sell before their maturity date. This interest rate risk, in combination with SVB's substantial amount of uninsured deposits (representing 88% of the bank's deposits at the end of 2022) and a struggling tech sector, appear to have helped create the conditions for SVB's quick collapse in March 2023.

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[1] Aimee Picchi, "Silicon Valley Bank shut down by regulators. Here's what to know." CBS News (March 10, 2023), available at: https://www.cbsnews.com/news/silicon-valley-bank-sivb-stock-fdic-cbs-explains/

[2] "Interest rate risk," also called "duration risk," works like this: If someone buys a bond when interest rates are low, then the market value of that bond will decline if rates for newly issued bonds go up, because the newly issued bonds generate higher revenue due to their higher interest rates. If the low interest rate bond is held until maturation, then the bond holder will see the full return. However, if the bond holder must sell a low interest rate bond on secondary market before the bond's maturity date, then the bond holder will take a loss because the low interest rate bond is valued lower than more lucrative newly issued bonds with higher interest rates.

Timeline of major events in the SVB collapse

- On Wednesday March 8, SVB announced a sale of $21 billion in securities at a loss of $1.8 billion to raise liquidity, a result of SVB's interest rate risk. The company also announced it was conducting a capital raise. These announcements raised concerns among investors and customers that the bank could be in financial trouble. In a letter to investors, the SVB president wrote that "While VC (venture capital) deployment has tracked our expectations, client cash burn has remained elevated and increased further in February, resulting in lower deposits than forecasted."[3]

- On Thursday, March 9, SVB experienced a bank run as a growing number of the bank's customers, including start-ups and VCs, began to pull their money out of the bank. SVB customers used social media and their personal networks to spread the word about pulling funds out of the bank. In total, approximately $42 billion was withdrawn from the bank in a single day, leaving SVB with a negative cash balance of around $958 million.[4] As DFPI described in its order taking possession of the bank, "the precipitous deposit withdrawal has caused [SVB] to be incapable of paying its obligations as they come due."

- On Friday, March 10, DFPI took control of SVB due to its inadequate liquidity and appointed the Federal Deposit Insurance Corporation (FDIC) as a receiver of SVB. The FDIC announced that the insured portion of deposits (amounts less than $250,000) would be available to customers by Monday, March 13, and that the uninsured portion of deposits would be paid as an advanced dividend at some later date. The FDIC also began looking for a buyer of SVB or its parts, which would then determine any additional funds that could be allocated back to uninsured depositors.

- On Sunday, March 12, purchaser bids for SVB were due to the FDIC. According to testimony from the FDIC's Martin Gruenberg, the FDIC received only one valid offer on the insured deposits and some of SVB's assets. Gruenberg states that the costs associated with this offer would have "resulted in recoveries significantly below the estimated recoveries in liquidation."[5]

  As concerns arose that risk of collapse could spread to other banks and reports that customers had begun to withdraw funds from other banks with large amounts of uninsured deposits, the FDIC board recommended that the Secretary of the Treasury make a "systemic risk determination" with regard to SVB. This determination allowed the FDIC to extend

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[3] Krystal Hu et al, "Silicon Valley Bank Scrambles to Reassure Clients After 60% Stock Wipe-Out." Reuters, March 10, 2023, available at: https://www.reuters.com/business/finance/silicon-valley-bank-sell-stock-cope-with-cash-burn-2023-03-09/

[4] DFPI's order is available at: https://dfpi.ca.gov/wp-content/uploads/sites/337/2023/03/DFPI-Orders-Silicon-Valley-Bank-03102023.pdf?emrc=bedc09

[5] Remarks by Chairman Martin J. Gruenberg on Recent Bank Failures and the Federal Regulatory Response before the Committee on Banking, Housing, and Urban Affairs, United States Senate, March 27, 2023, available at: https://www.fdic.gov/news/speeches/2023/spmar2723.html

insurance to all of SVB's deposits, even those with deposits greater than the $250,000 insured threshold. Gruenberg notes this guarantee helped small and mid-size businesses as well as customers with very large account balances. The ten largest deposit accounts held $13.3 billion in total.

- On Sunday, March 26, the FDIC announced that it had sold most of SVB's assets to First Citizens Bank. According to the FDIC, the net costs of the SVB failure to the Deposit Insurance Fund to insure all deposits would be roughly $20 billion.

<u>Possible questions from committee members</u>

To better understand the drivers of the SVB failure and how policymakers should respond, the Committee may consider asking the following questions during the hearing:

1) If part of SVB's unique risk was its concentrated business model and narrow customer base, what can banks do differently? Are there relevant regulations or public policies that would help address this?

2) If part of the problem is that SVB leadership embraced risky practices, what can be done to make bank leadership more responsible? Should policymakers re-evaluate bank leadership compensation practices?

3) Federal regulators warned SVB about its interest rate risk or internal management practices. How must a bank respond to such warnings? What other actions could state or federal regulators have taken to prompt action by banks in this situation?

4) Could any institution withstand the scale of deposit withdrawals experienced by SVB? Can the financial system handle bank runs in a digital world? How can policymakers "social media proof" the financial system?

5) SVB had uniquely large amounts of uninsured deposits. Why was this the case?

HOW WAS SVB REGULATED AND SUPERVISED?

Overview of the dual-banking system

How a bank is regulated and supervised depends on its charter, which acts as a type of license authorizing the bank to operate. The United States has a dual-banking system (also called a dual-charter system) by which both federal and state regulators share the supervision of banks and credit unions. Under the dual-banking system, a bank can choose to receive a federal charter through the Office of the Comptroller of the Currency (OCC) or a state charter through the state chartering authority.

DFPI is California's state chartering authority and supervises nearly 100 state-chartered banks.[6] A state-chartered bank is also regulated by either the Federal Reserve or the FDIC, depending on whether or not the bank joins the Federal Reserve System or not. Importantly, banks, whether they are state-or federally-chartered, may also be subject to a range of macroprudential rules and policies aimed at ensuring the stability of the whole financial system.

The dual-banking system may seem like a complicated structure that adds yet another cook to a kitchen already filled with assorted federal agencies. However, the availability of a state charter is believed to produce real and tangible benefits for both the industry and consumers by making the federal and state governments "compete" for banks. According to the Conference on State Banking Supervisors (CSBS), state regulators offer unique value to banking supervision because "the state regulatory system provides banks and nonbanks the opportunity to serve the specific needs of local communities under the supervision and guidance of a supervisor directly connected to those communities."[7] CSBS notes that many products that are now commonplace, such as home equity loans and the checking account, originated in state-chartered banks and later became more widely available in the broader dual-banking system.

DFPI also cites a number of advantages to banks that obtain a California charter. Among the benefits are lower fees and assessments, minimal intrusion of examiners into institutions that are well-managed and well-capitalized, and more direct and timelier contact with the regulator.[8] DFPI states that "the combination of access, low fees, favorable state laws, and expertise and experience of the Department's staff, make the state charter the charter of choice for California financial institutions."

[6] For a full list of state-chartered banks in California, see: https://dfpi.ca.gov/commercial-banks/directory-of-state-charted-com-banks/

[7] See CSBS primer on financial services regulation for further discussion of state charters: https://www.csbs.org/state-financial-regulation-101

[8] "Advantages of a State Charter," DFPI (Updated September 2019), available at: https://dfpi.ca.gov/advantages-of-state-charter/

What is involved in bank supervision?

As a state-chartered bank that was a member of the Federal Reserve System, SVB was jointly supervised by DFPI and the Federal Reserve. For these types of banks, DFPI and the Federal Reserve coordinate their examinations of the bank and may even alternate examinations. The two supervising teams may focus on different aspects of the bank's operations.

According to the Federal Reserve, the primary objectives of an examination are to provide an objective evaluation of a bank's soundness, determine the risk involved in the bank's activities, evaluate the bank's compliance with laws and regulations, and identify areas where "corrective action" is required to strengthen the bank and improve the quality of its performance.[9]

Banking supervisors have a number of options to correct a bank's behavior or practices. For example, if the Federal Reserve determines that a bank is unsafe or it is not following the law, it can take a range of informal or formal actions to ensure that the bank changes course. Informal supervisory actions typically are used to address less serious issues, while formal supervisory actions are actions to correct behavior, and can be enforced in court. Those formal actions can include orders directing the bank to cease and desist from engaging in certain conduct or directing the bank to take actions to return to safer business practices.

Did regulators have concerns about SVB?

As of the writing of this document, it is unknown the extent to which DFPI was aware of SVB's weaknesses and what actions were taken in its capacity as SVB's chartering authority. It is also unknown how the Federal Reserve and DFPI shared supervision in practice.

However, the Federal Reserve has provided some information about its supervision of SVB and the issues identified by its examiners. On March 28, Michael S. Barr, the Vice Chair for Supervision at the Federal Reserve, provided in Congressional testimony a brief summary of concerns flagged by SVB supervisors. Barr's testimony stated:

> Near the end of 2021, supervisors found deficiencies in the bank's liquidity risk management, resulting in six supervisory findings related to the bank's liquidity stress testing, contingency funding, and liquidity risk management. In May 2022, supervisors issued three findings related to ineffective board oversight, risk management weaknesses, and the bank's internal audit function. In the summer of 2022, supervisors lowered the bank's management rating to "fair" and rated the bank's enterprise-wide governance and controls as "deficient-1." These ratings mean that the bank was not "well managed" and was subject to growth restrictions under section 4(m) of the Bank Holding Company Act. In October 2022, supervisors met with the bank's senior management to

[9] See Chapter 5 of the Federal Reserve's "About the Fed" manual for an in-depth discussion of the Federal Reserve's many supervisory duties for both national and state member and nonmember banks: https://www.federalreserve.gov/aboutthefed/files/pf_5.pdf

> express concern with the bank's interest rate risk profile and in November 2022, supervisors delivered a supervisory finding on interest rate risk management to the bank.[10]

While Federal Reserve examiners correctly identified the types of issues that would ultimately lead to SVB's failure, it is unclear whether the Federal Reserve was planning to take more formal action. Barr, in his testimony, acknowledged that policymakers must determine whether banking supervisors have the tools to mitigate threats to the safety and soundness, and whether supervisors are supported in using these tools.

News reports suggest that the answer to the second question may be "no." For example, a March 24 *Wall Street Journal* report dissected the many tensions facing banking supervisors and the challenges of elevating concerns into more concrete and aggressive interventions:

> One FDIC official said problems rarely escalate into cease-and-desist orders unless there's a long-term pattern of noncompliance. He said that absent some emergency—which wasn't apparent with SVB until it was too late—it can be challenging for supervisors to push back against management if the bank is in compliance with all of its capital and liquidity requirements, as SVB was.[11]

Possible questions from committee members

To better understand how banking supervision fell short, the Committee may consider asking the following questions during the hearing:

1) How should policymakers think about changes to the state charter? Are there risks of pushing banks to the federal charter system?

2) Given the size of SVB and the federal government's determination that its potential failure posed a systemic risk, was it appropriate for it to be chartered at the state level?

3) What is the current timeline of banking examinations? Given how quickly SVB grew in the last three years and the speed of the bank run, should examinations happen more frequently?

4) If DFPI wanted to more assertively demand changes in SVB's risk management practices, what authority did they have as a chartering authority to do so?

[10] Michael S Barr, "Bank Oversight," Testimony Submitted to the US Senate Committee on Banking, Housing, and Urban Affairs (March 29, 2023), available at https://www.federalreserve.gov/newsevents/testimony/barr20230328a.htm

[11] Andrew Ackerman et al, "How Bank Oversight Failed: The Economy Changed, Regulators Didn't." Wall Street Journal (March 2023, 2023), available at: https://www.wsj.com/articles/how-bank-oversight-failed-the-economy-changed-regulators-didnt-7dbb842d

FEDERAL REGULATORY CHANGES AND BIDEN ADMINISTRATION RESPONSE

In addition to exploring the role of supervisors in missing the immediate danger posed by SVB, federal policymakers and policy experts are also revisiting specific federal regulations. They have identified a change to a 2019 federal rule – called the "tailoring rule"- that may have allowed SVB to take unnecessary risks or otherwise contributed to the bank's unpreparedness for the impact of high interest rates on the its finances.

The tailoring rule states that banks with between $50 billion and $250 billion in assets (like SVB) will not be subject to some of the regulatory standards and liquidity requirements that apply to larger, more "systemically important" banks.[12] For example, the liquidity coverage ratio is the minimum amount of high-quality liquid assets a bank typically must hold to fund cash outflows for 30 days. Because of the 2019 rule change, SVB was not subject to the liquidity coverage ratio rule. In evaluating whether SVB would have benefited from following this rule, one analysis by Yale School of Management's Greg Feldberg concludes that SVB's liquidity coverage ratio "would have been…substantially below the threshold. This result suggests that the 2019 tailoring rule was complicit in the run and failure at SVB."[13]

In response to the SVB failure, the Biden administration has highlighted the need to modify or reverse the tailoring rule as an immediate next step. On March 30, 2023, the administration released a set of proposals to strengthen safeguards and supervision for large regional banks. Those recommendations are heavily focused on reversing the 2019 changes described above.[14] The administration's policy proposals include:

- Reinstating rules for banks with assets between $100 billion and $250 billion, including liquidity requirements, enhanced liquidity stress testing, annual supervisory capital stress tests, and comprehensive resolution plans.

- Strengthening supervision by reducing the transition periods for applying safeguards to banks projected to exceed the $100 billion threshold, strengthening supervisory tools to make sure banks can withstand high interest rates.

However, experts who contend the 2019 rule change helped facilitate the SVB collapse also acknowledge that it is just one of many possible factors that worked together to allow the collapse of SVB. For instance, the Feldberg analysis cited above also concludes that regulators

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[12] For a detailed table of how the tailoring rule affected banks of different size, see: https://www.federalreserve.gov/aboutthefed/boardmeetings/files/tailoring-rule-visual-20191010.pdf

[13] Greg Felberg, "Lessons from Applying the Liquidity Coverage Ratio to Silicon Valley Bank," Yale School of Management (March 23, 2023), available at: https://som.yale.edu/story/2023/lessons-applying-liquidity-coverage-ratio-silicon-valley-bank

[14] "FACT SHEET: President Biden Urges Regulators to Reverse Trump Administration Weakening of Common-Sense Safeguards and Supervision for Large Regional Banks," White House (March 30, 2023), available at: https://www.whitehouse.gov/briefing-room/statements-releases/2023/03/30/fact-sheet-president-biden-urges-regulators-to-reverse-trump-administration-weakening-of-common-sense-safeguards-and-supervision-for-large-regional-banks/

should have identified the liquidity risks due to "its high concentration to, and run-inducing dependence on, a specific type of corporate depositor," and that SVB might have faced a similar bank run because of its mismanagement of duration risk.

In his testimony to Congress, Barr references the tailoring rule and the Federal Reserve's review of the impact of these regulations on the SVB collapse. Barr states that the Federal Reserve is assessing whether "SVB would have had higher levels of capital and liquidity under those standards, and whether such higher levels of capital and liquidity would have forestalled the bank's failure or provided further resilience to the bank."[15]

Possible questions from committee members

To better understand how the state can complement the work of the Biden Administration, the Committee may consider asking the following questions during the hearing:

1) How should policymakers think of the state role in protecting the safety and soundness of state-chartered banks?

2) How can the state complement the reforms implemented by the Biden Administration?

NEXT STEPS

As noted above, DFPI and the Federal Reserve will release reports in May 2023 that examine the SVB collapse and the role of banking supervisors. These reports may provide insights into next steps and whether additional legislation could strengthen California's banking system.

[15] Michael S Barr, "Bank Oversight," Testimony Submitted to the US Senate Committee on Banking, Housing, and Urban Affairs (March 29, 2023), available at https://www.federalreserve.gov/newsevents/testimony/barr20230328a.htm

KLAROS GROUP

Dual Banking System

Briefing for California Assembly Committee on Banking & Finance

Michele Alt, Co-Founder, Klaros Group

April 10, 2023

Introduction and Disclaimer

Michele Alt

Regulatory Advisor

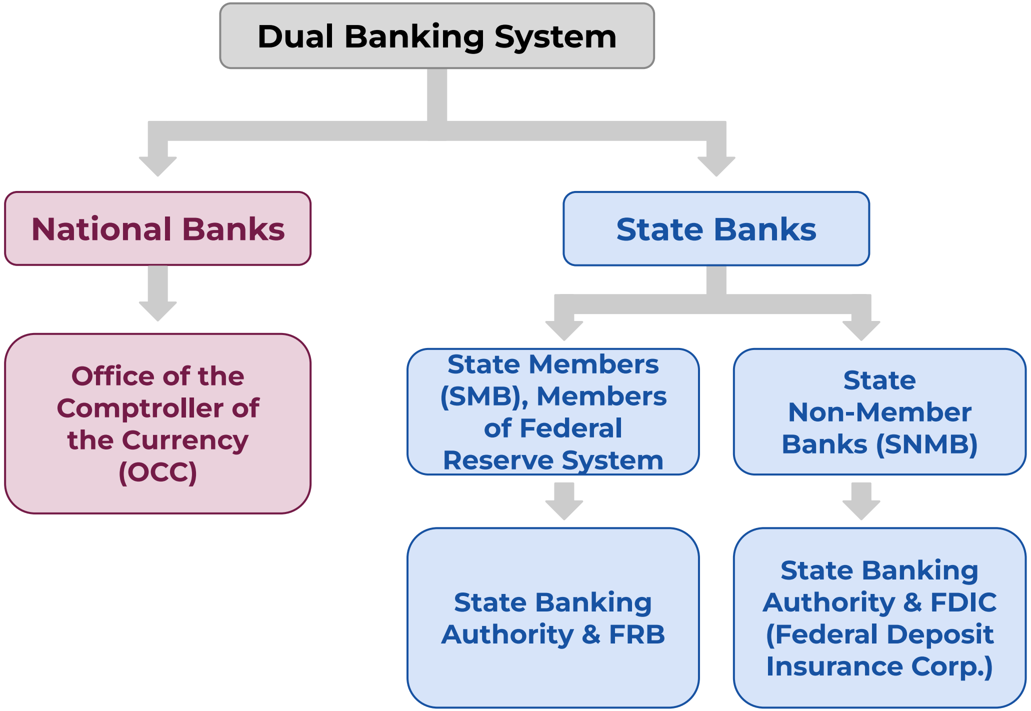
- Klaros Partner & Co-Founder
- Director, Promontory Financial Group
- Central District Counsel, OCC
- Legislative and Regulatory Activities Assistant Director, OCC
- Judicial Clerk, U.S. Ct. of Fed. Claims

- Only speaking about **publicly available information**
- **Views are my own** and not those of Klaros Group or my partners

Dual Banking System

- Refers to the **parallel state and federal banking systems** that have co-existed in the U.S. for more than 200 years
- Federal system based on federal banking charter and **oversight by federal supervisors**
- State system characterized by state chartering and **oversight by state *and* federal supervisors**

Dual Banking System and the DFPI



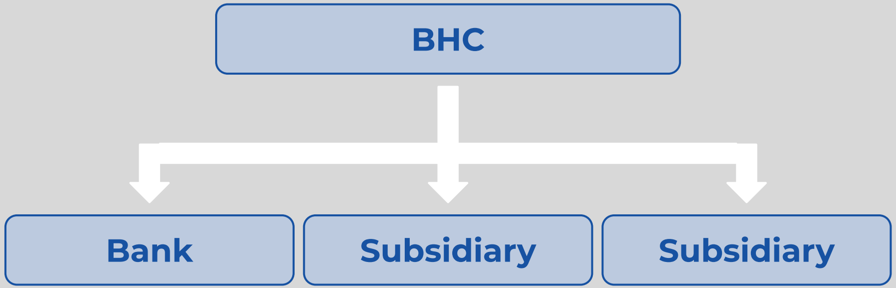
- **California Department of Financial Protection & Innovation (DFPI)** licenses and regulates state-chartered banks like SVB, First Republic, and Silvergate
- **Federal Reserve (FRB)** is the primary federal regulator of a state bank that is a member of the Federal Reserve System
- **FDIC** is the primary federal regulator of a non-member state bank
- **SVB and Silvergate** were member banks regulated by the Federal Reserve Bank of San Francisco
- **First Republic** is a non-member bank regulated by the FDIC

Bank Holding Company (BHC) Regulation

The FRB regulates BHCs like Silicon Valley Financial.

BHC → **has a** → **Controlling stakes in banks** **but** **Does not offer banking services**

BHC structure:



DFPI Coordination with Federal Banking Agencies 1/2

- "**The Department has cooperative examination agreements with both the FDIC and the Federal Reserve Bank** (FRB), whereby examinations are conducted on an alternating basis."
- "We make every effort to have minimal disruption on bank operations. The use of cooperative examination agreements between state banking supervisors and the FDIC and FRB essentially assures that a **state bank will have only one regulatory examination on either a 12- or 18-month cycle** since each agency relies on the alternating examination agreement."
- "Our alternating examination program with the federal regulators **minimizes the intrusion of examiners into institutions that are well-managed and well-capitalized**, freeing up staff to concentrate on financial institutions in need of closer supervision."

DFPI Coordination with Federal Banking Agencies 2/2

- "**The Department enjoys a good working relationship** with the FDIC, FRB and NCUA. We interact well with other regulatory agencies both state and federal on those occasions when our regulatory paths cross, providing mutual assistance when possible and necessary."
- "Generally, **federal regulators will consult with the state banking supervisor** as to an appropriate remedy for problem issues involving state-chartered financial institutions, since the state supervisor is the chartering agent for the financial institution. This state/federal consultation process often results in greater overall flexibility on the part of the regulators."

But DFPI has Broader Role and Fewer Resources

- Unlike the FRB and FDIC, **DFPI is also the primary regulator of nonbank financial service providers** in the state
  - DFPI oversees approximately 20 different types of financial licensees
- **FRB of San Francisco has 200+ more employees than the DFPI** and the ability to draw on personnel from other districts and Washington, DC
  - This provides advantages in managing larger, more complex banks that operate in multiple states, like SVB, or banks with specialized business models, like Silvergate
- Thus, **Federal banking agencies often take a lead role in the supervision of complex or specialized state banks**
- The **DFPI plays a critical role in public messaging** and reinforcing confidence in all state banks

Effects: Sale of Silicon Valley Bank Deposits and Assets to First Citizens Bank

Acquired certain assets and assumed certain liabilities of Silicon Valley Bridge Bank, N.A. from the FDIC

Acquisition details

- We acquired **total assets of $110.1 billion** with a **$16.5 billion discount bid on assets**, consisting of:
  - **$72.1 billion** in loans
  - **$56.5 billion** in deposits
  - No investment securities acquired
- Option to purchase all bank branches and corporate locations.
- Retaining employees in the acquired revenue-producing businesses and those necessary to manage operations to support those businesses.
- FDIC received a value appreciation instrument from First Citizens BancShares, Inc. valued at up to $500 million (payable in cash) and exercisable until April 14th, 2023.

Downside protections

- Transaction structured to **limit liquidity and credit risks** to First Citizens:
  - Asset discount and loss share agreement with the FDIC provides downside protection against credit risk.
  - Five-year loss share agreement stipulates that the FDIC will reimburse First Citizens for 50% of losses on commercial loans in excess of $5 billion.
  - Entered into a liquidity facility with the FDIC to provide additional contingent funding if needed.

Integration

- All regulatory approvals received and transaction has closed.
- All branches now operating as a division of First Citizens Bank.
- All depositors will continue to have access to their funds.

Preliminary Acquired Assets & Liabilities (1)

($ in millions)

Assets		
Cash	$	35,264
Gross loans		72,114
Earning assets	**$**	**107,378**
Other assets		2,704
Total assets	**$**	**110,082**

Liabilities		
Deposits	$	56,491
Borrowings (2)		34,605
Other liabilities		2,536
Total liabilities	**$**	**93,632**
Discount bid on assets	**$**	**16,450**

First Citizens BancShares

(1) Assets and liabilities as of March 24, 2023 as provided by the FDIC. Subject to change based on closing balance sheet. Asset and liability data does not include purchase accounting marks.
(2) In connection with the acquisition, First Citizens entered into a five-year $35 billion note payable to the FDIC bearing an annual interest rate of 3.50%. Amount is estimated based on the March 24, 2023 balance sheet provided by the FDIC. Subject to change based on closing balance sheet.

Effects: First Citizens Bank Did Not Assume SVB's Community Benefits Plan

- **SVB negotiated the agreement as it was seeking regulatory approval to buy Boston Private**, a Boston-based private bank and wealth manager
- SVB pledged **$11.2 billion**
    - $5 billion in small-business loans
    - $4.8 billion in community development loans
    - $1.3 billion in LMI residential mortgages
    - $75 million in charitable donations
- **$9 billion was to be invested in California**
- In 2022, the first year of the agreement, SVB:
    - Launched a **fixed-rate program for LMI applicants to buy or refinance homes**
    - Increased its community development lending, with **more than 60% going to affordable housing**
    - Co-founded an **"action opportunity fund" to provide technical assistance and loan support** to diverse, immigrant and women-owned businesses
- **First Citizens likely to negotiate at least partial compliance with SVB's agreement** but full compliance may not be in the cards
    - SVB had $174 billion in deposits in December 2022 - First Citizens acquired the $56.5 billion that remained

2023 Banking Crisis and Silicon Valley Bank—Causes, Effects & Unanswered Questions

Briefing for California Assembly Committee on Banking & Finance

April 10, 2023

Todd H. Baker

Senior Fellow, Richman center for business, Law & Public Policy, Columbia University

Causes

- **The Economic and Interest Rate Environment Since 2008**
- **The Fed, Inflation and Interest Rates**
- **Silicon Valley Bank's Unique Business Model**
- **Crisis Accelerants**
    - **Poor Risk Management by SVB**
    - **External Factors**
        - **Silvergate Failure**
        - **Moody's and Goldman Fundraising**

Effects

- **Thursday/Friday 3/09-3/10 Deposit Run**
- **DFPI Seizure & Initial FDIC Receivership**
- **Runs On All Banks with High Uninsured Deposit Balances (First Republic, Signature, PacWest, Western Alliance) and Signs of Systemic Meltdown Over Weekend**
- **Fallout for California**
- **Second Government Intervention and Bridge Bank**
- **Sale of Franchise/Assets to First Citizens' Bank**
- **First Republic Bank Impact**

Unanswered Questions

- **What Did Management Know and When?**
- **What Did Board Know and When?**
- **What Did Regulators Know and When?**
- **Impact of Moody's Downgrade and Capital Raise/Securities Sale**
- **Holding Company Liability and Securities Brokerage and Venture Capital Investment Subsidiaries**

Key Policy Issues

- **How Should Management be Treated Given Risk Management Failures?**
- **Should Bank Boards be Required to Have Expert Members?**
- **Did Regulators Have the Right Powers and Could They Have Used Existing Powers More Effectively?**
- **Does the Definition of a Systemic Bank Need to be Revisited?**
- **Should Liquidity and Other Standards Applied to Biggest Banks be Applied to Smaller but Still Large Banks?**

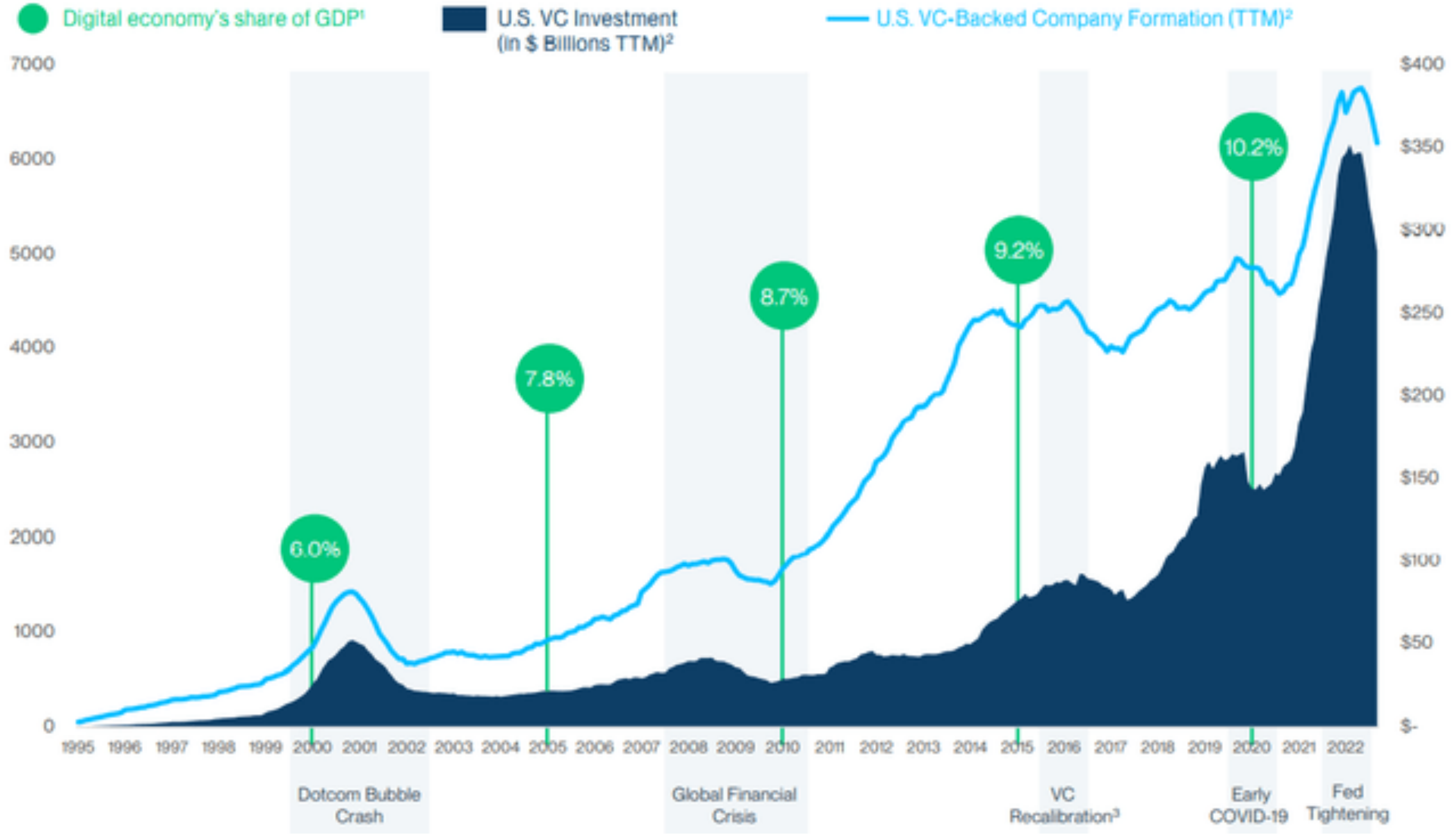
Timeline

- March 8
  - SVB announced it has raised $500 million from General Atlantic and plans for a $1.25 billion common stock sale, plus another $500 million of depository shares.
  - Earlier in the day, Silvergate, a bank popular with the crypto industry, announced it's shutting down operations, a harbinger to what's to come.
- March 9:
  - SVB's stock fell 60% and a growing number of VCs and startups started to pull their money out of the bank.
  - SVB CEO attempted to appease VCs and startups in a conference video call, asking them to "stay calm."
  - The bank also updated Goldman Sachs on deposit outflows, effectively killing the share offering.
  - By the end of the day, customers had initiated $42 billion in withdrawals, making it the largest bank run in history.
- March 10:
  - U.S. regulators took control of the bank Friday morning, shutting it down, and announced plans to liquidate and pay off insured depositors and provide some payment to uninsured depositors
- March 12:
  - Bids to acquire SVB were due on Sunday, but there was no sale (the FDIC reportedly declined the lone bid by an unnamed company).
  - The U.S. government announced it would backstop all SVB deposits.
  - Regulators shut down Signature Bank in New York, citing systemic risk.
- March 13:
  - SVB's U.K. arm is sold to HSBC for £1.
  - First Republic Bank's stock plunges 60% as the market got jittery about a broader banking crisis. Other regional banks also saw stock drops.
  - SVB reopens for business as the newly set up Silicon Valley Bridge Bank.
  - The Fed announces a review of SVB's failure.
- March 15:
  - Credit Suisse, who's had its own woes for quite some time, announced it will borrow up to 50 billion Swiss francs ($53.68 billion) from the Swiss National Bank to strengthen its liquidity.
- March 16:
  - Treasury Secretary Janet Yellen reassured Congress that the U.S. banking system is "sound."
  - 11 banks inject $30 billion of deposits into First Republic Bank as a show of confidence as it's spent the week trying to avoid SVB's fate.
- March 17:
  - SVB Financial Group files for Ch. 11 bankruptcy protection in the Southern District of New York.
  - Bids in a second attempt to sell SVB are reportedly due (later extended)
- March 27
  - First Citizens' Bank acquires most assets and liabilities of Silicon Valley Bank
  - Operations return to normal

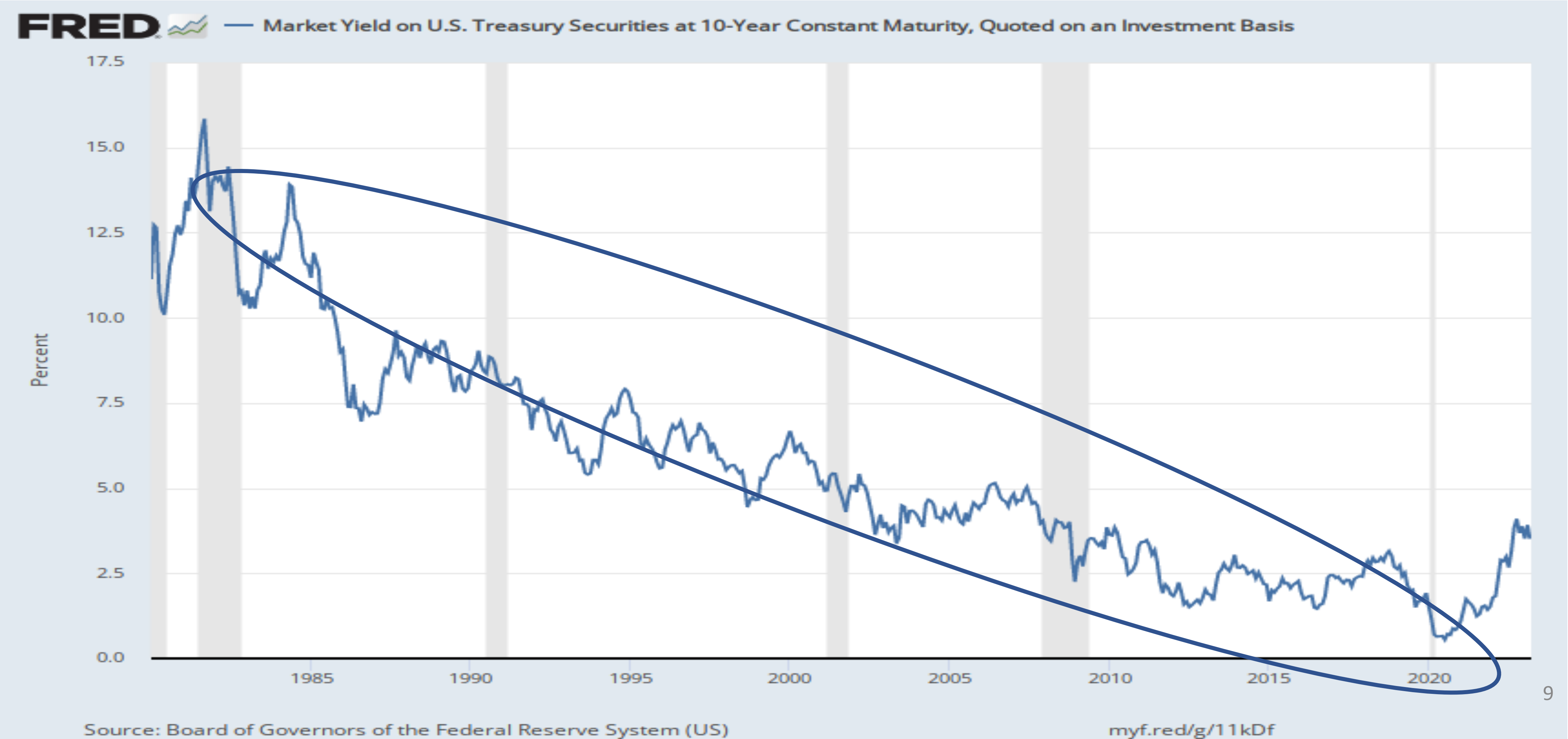
Causes: The Economic and Interest Rate Environment Since 2008

Digital Economy Growth

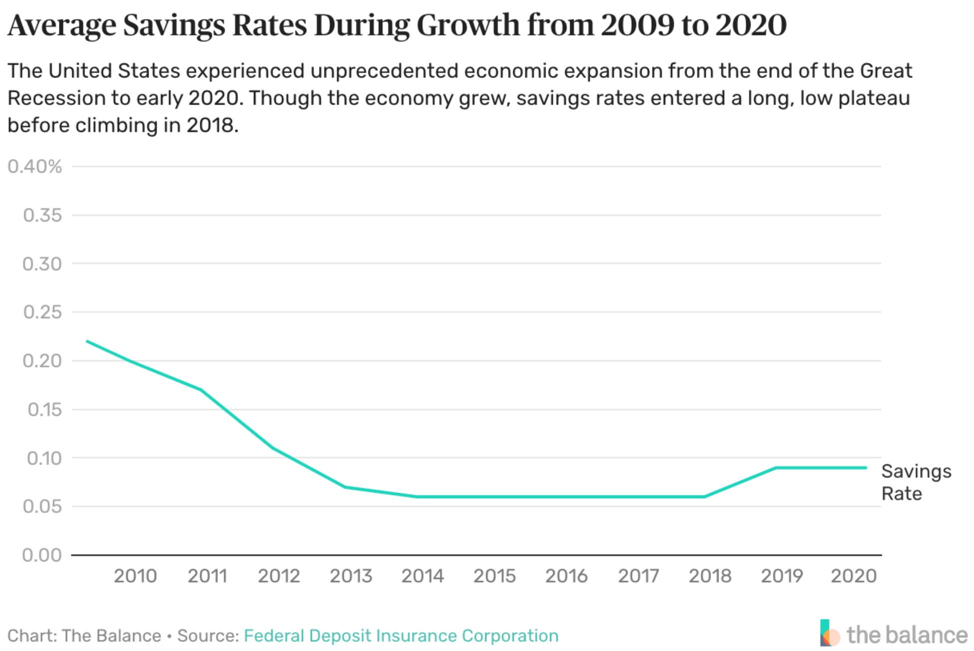
U.S. VC investment, company formation and the Digital Economy's share of GDP

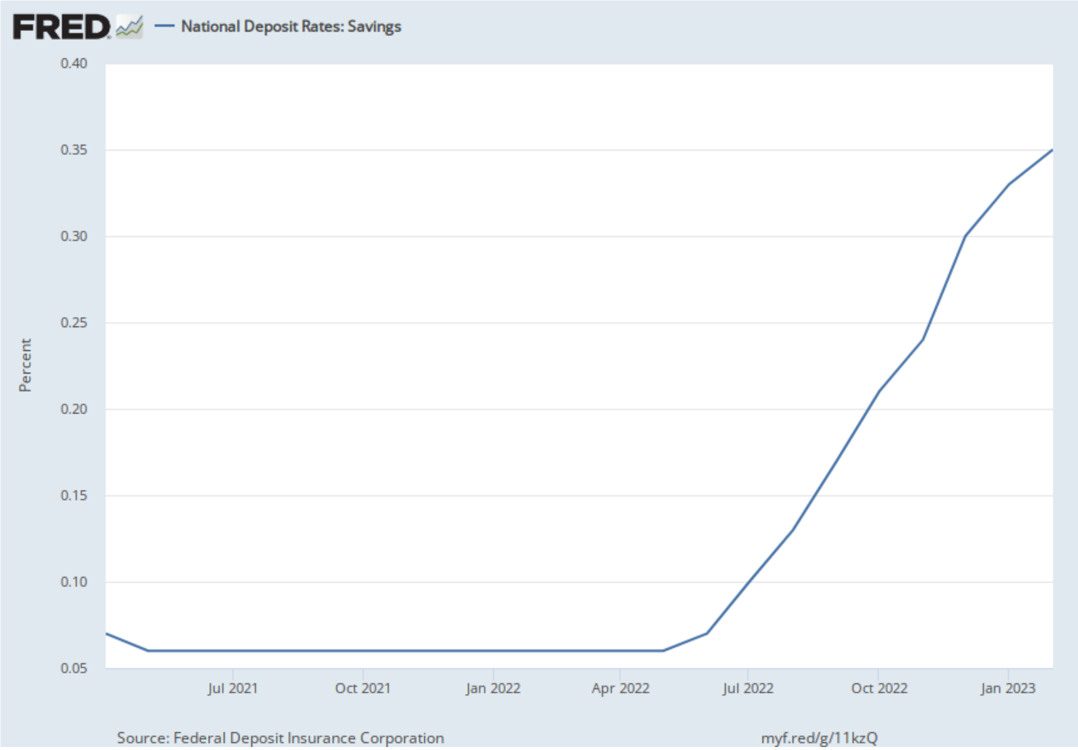


Falling Long Term Interest Rates for Many Years

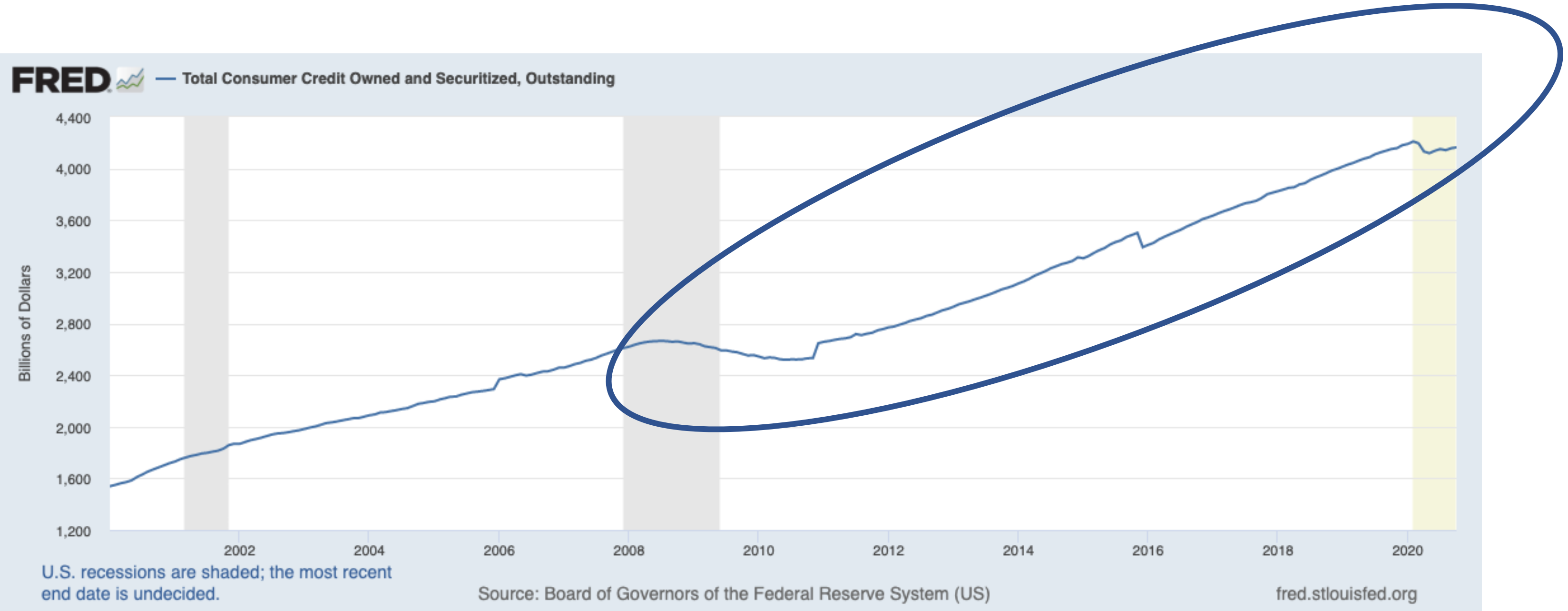


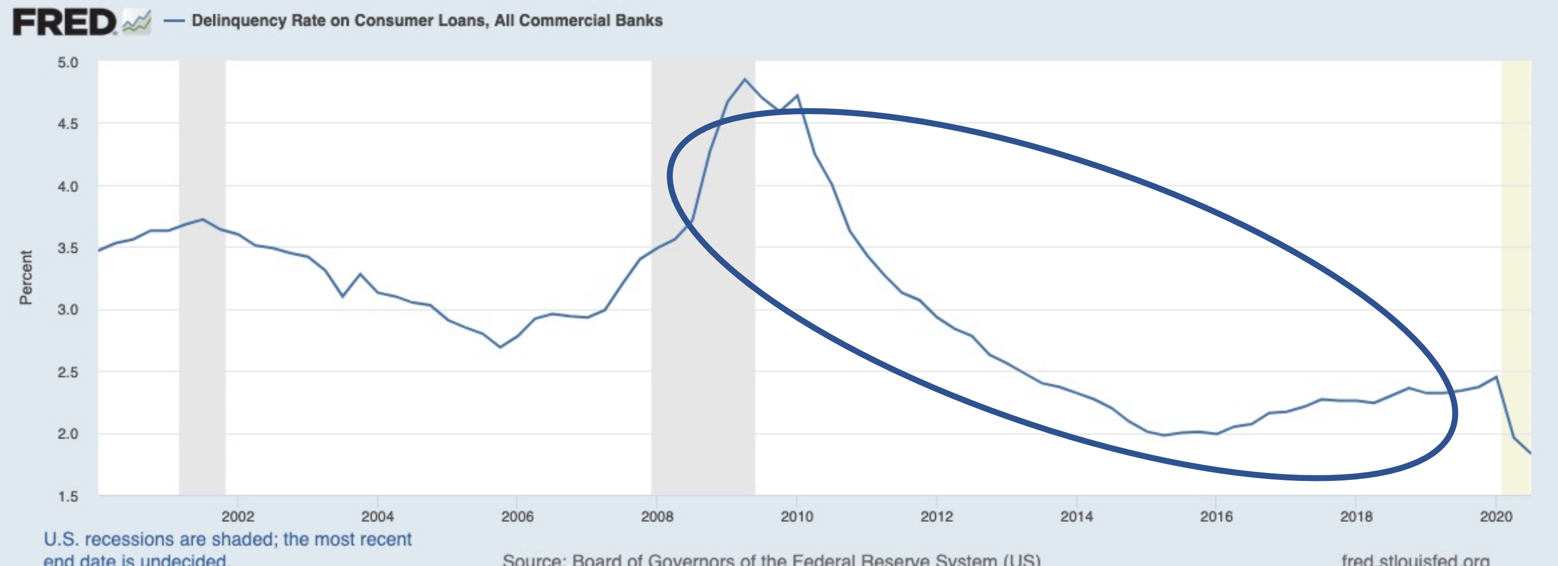
Bank Deposit Interest Rates Stayed Low Until Very Recently



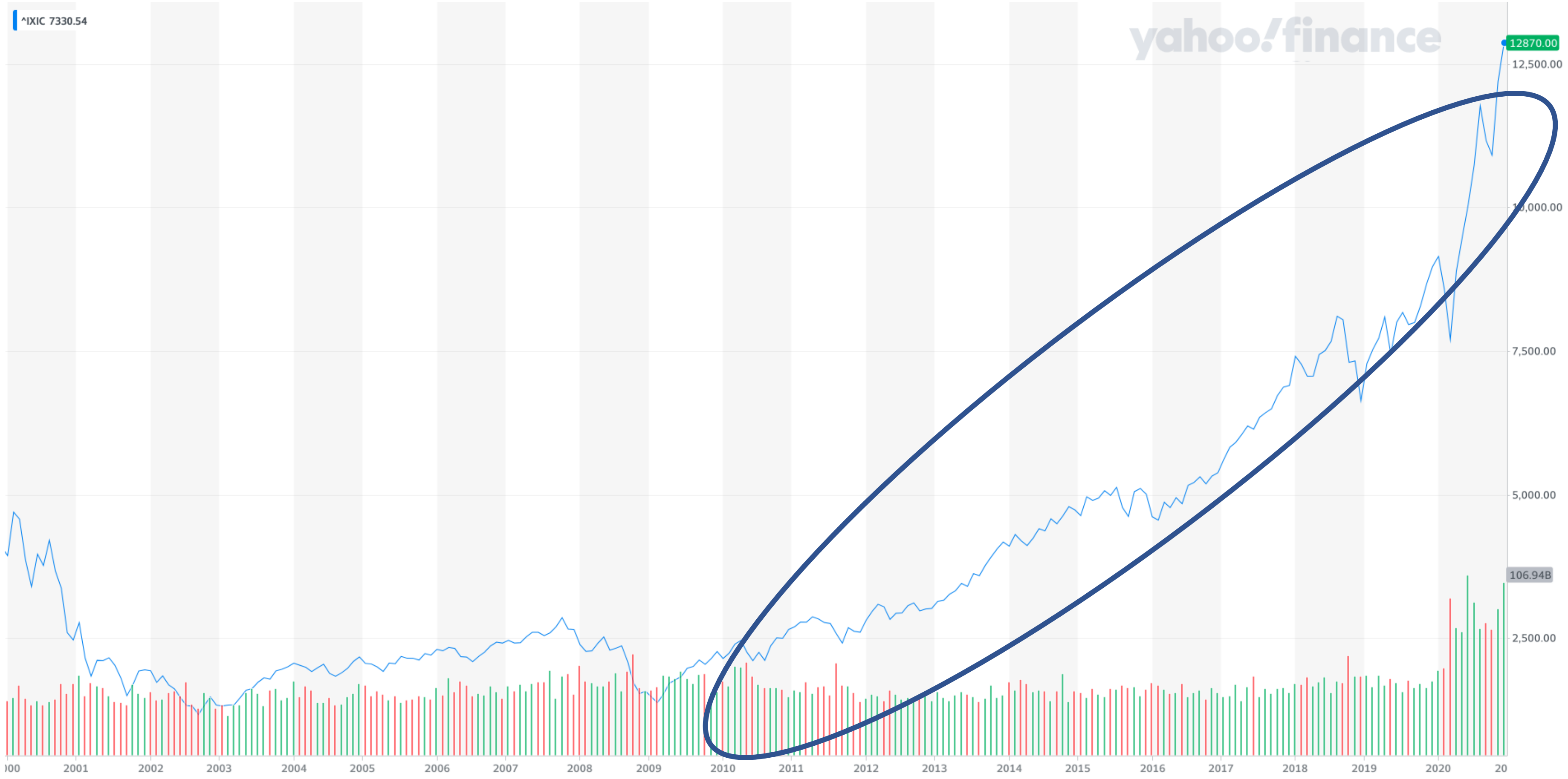


Rapid Credit Growth and Great Performance



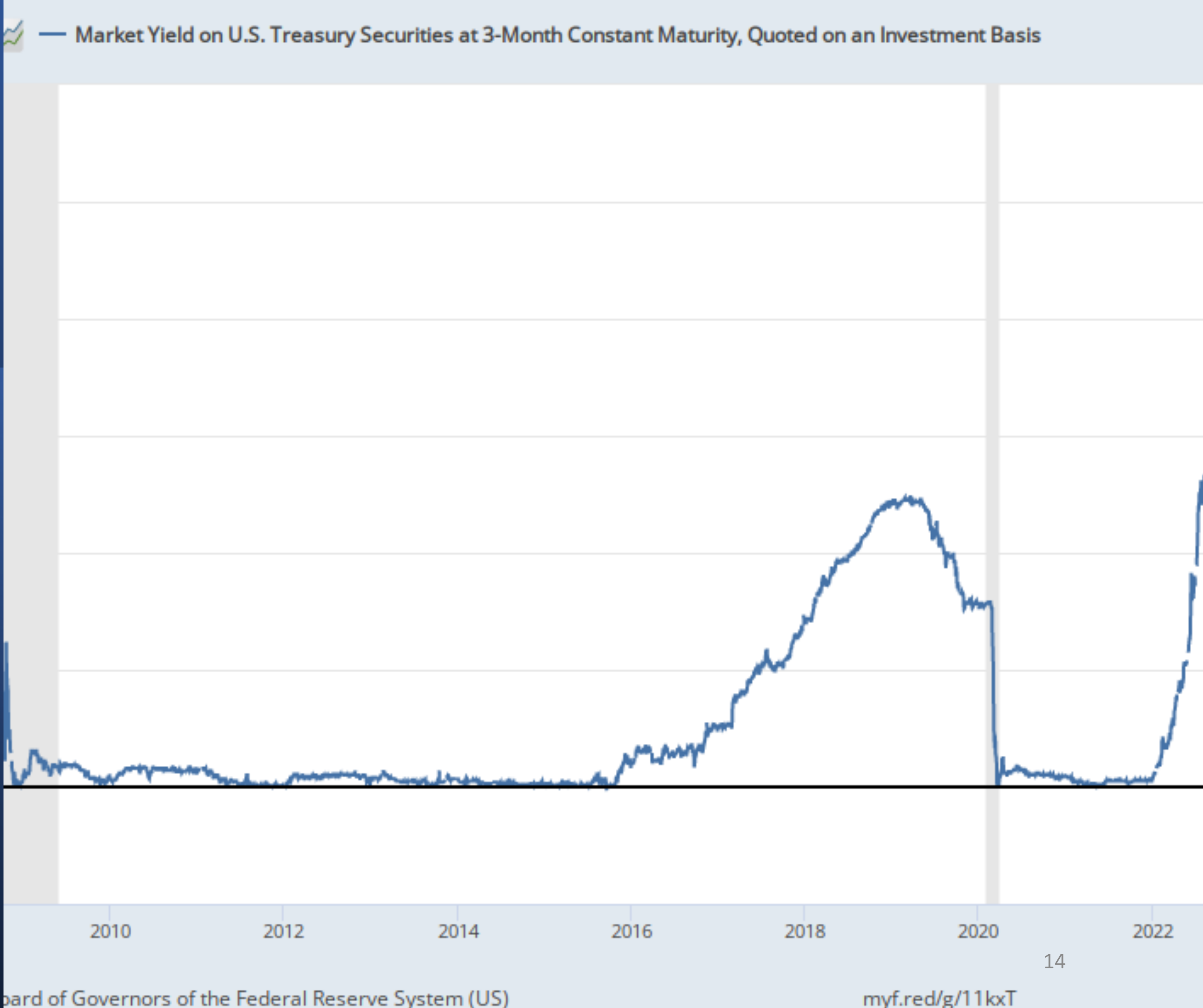


Booming Equity Markets for Years—Nasdaq Composite



Causes: The Fed, Inflation and Interest Rates

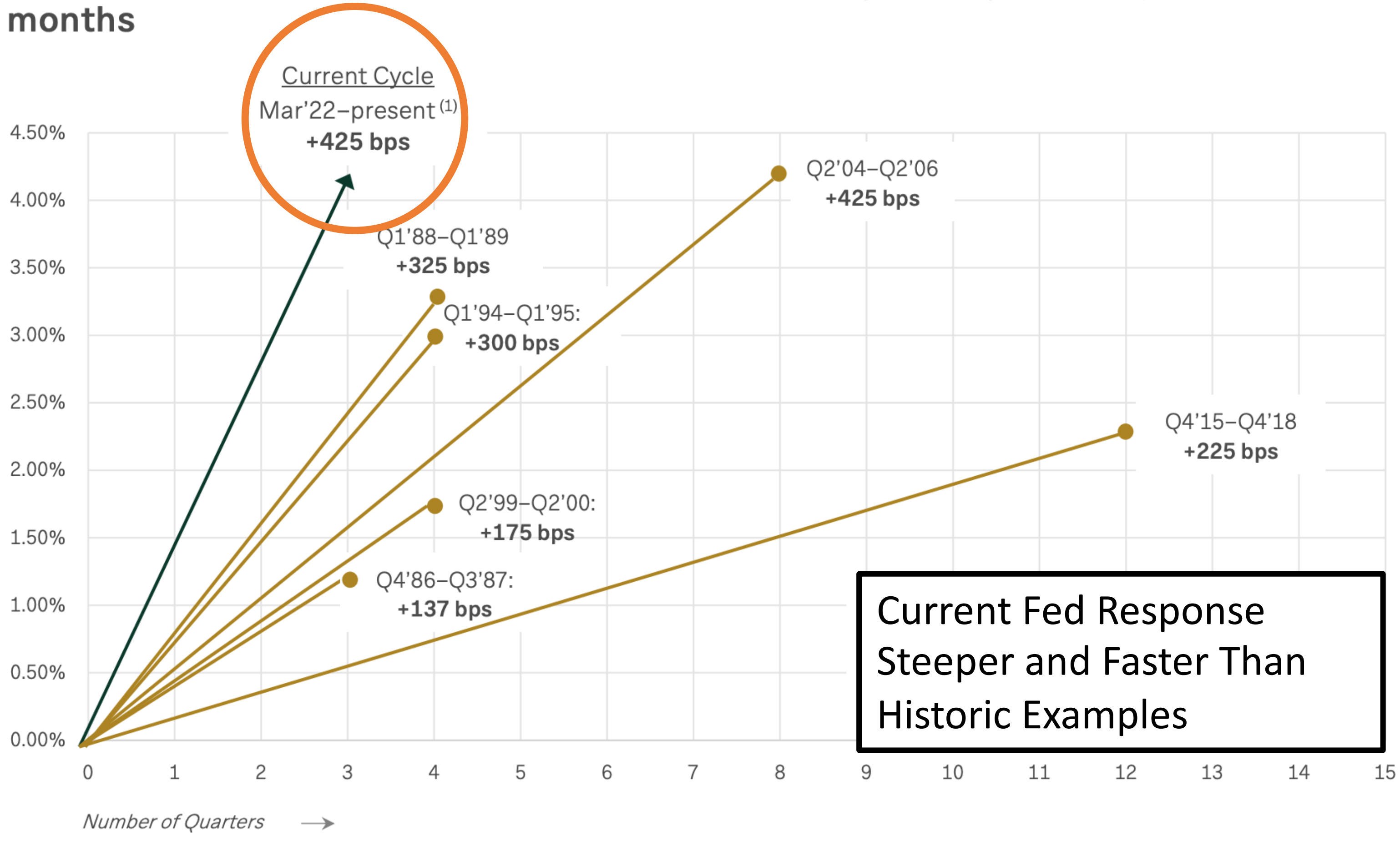
Short-Term Interest Rates Began to Spike Recently as Fed Ended QE



Fed Action Was Faster Than Prior Cycles

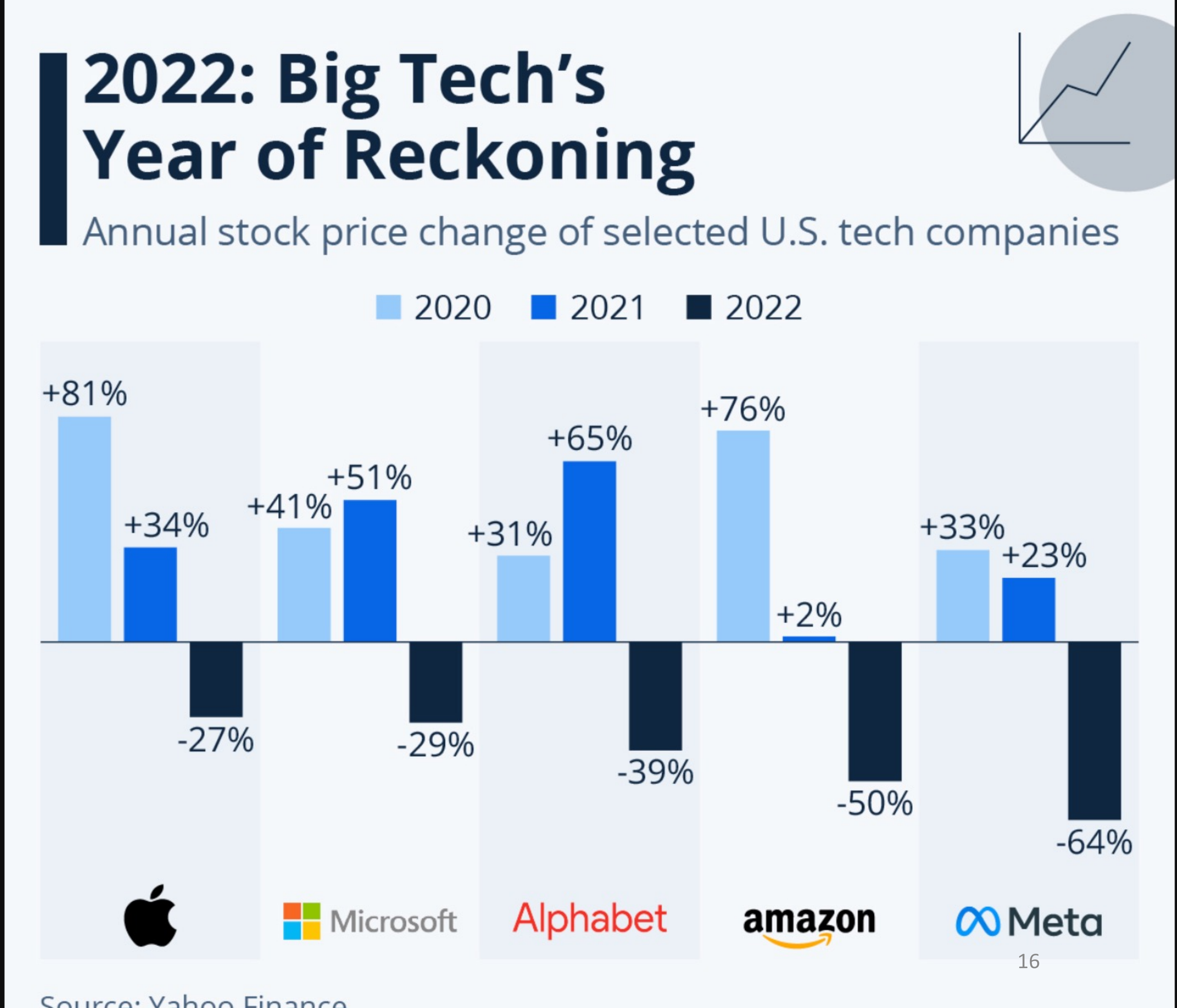
An Unprecendented Environment

The Fed has taken unprecedented action, increasing its target rate by 425 bps in 9 months



Current Fed Response Steeper and Faster Than Historic Examples

Correlations: Tech Market Reversal Was Intense

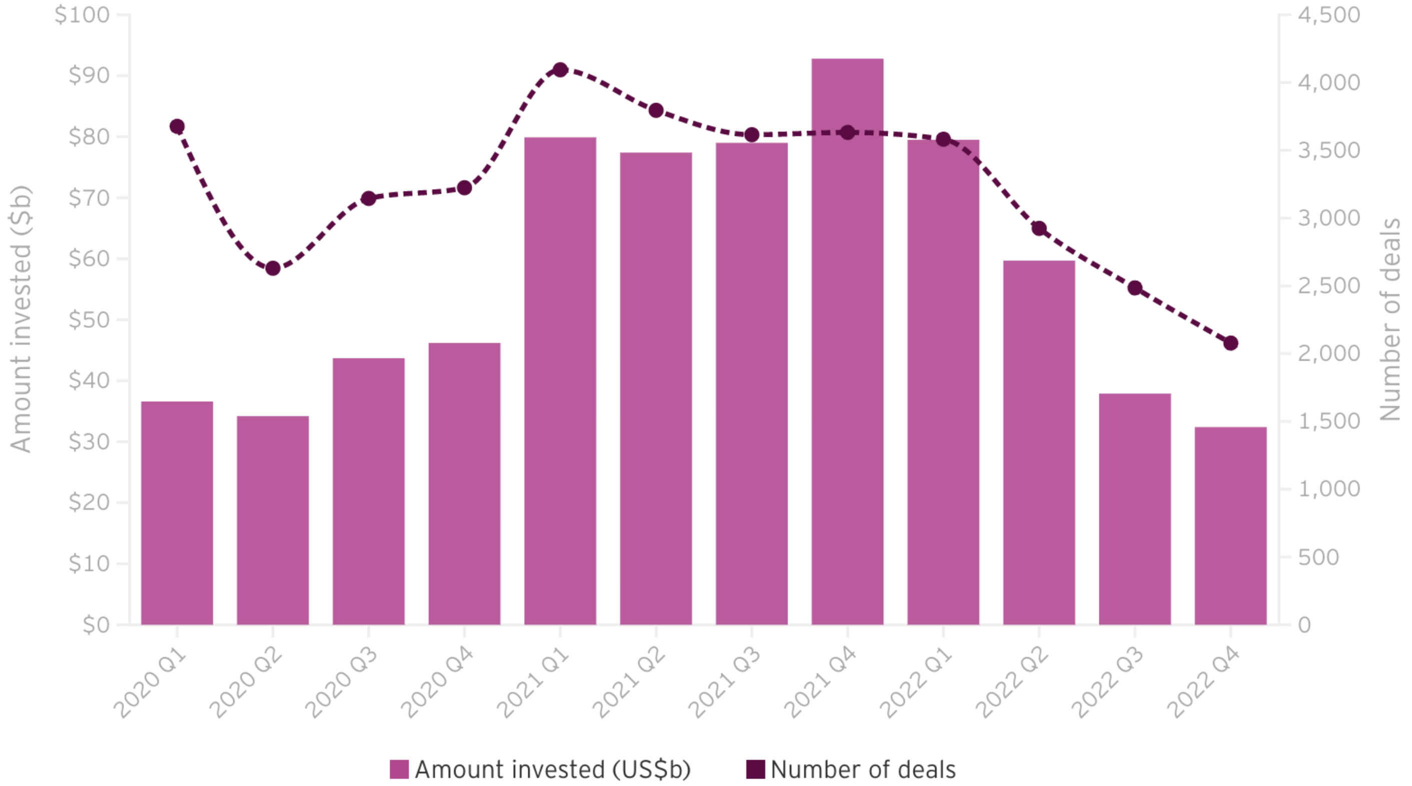


Expectations for 2023 are Further Depressed

Correlations: Venture Investment Declined

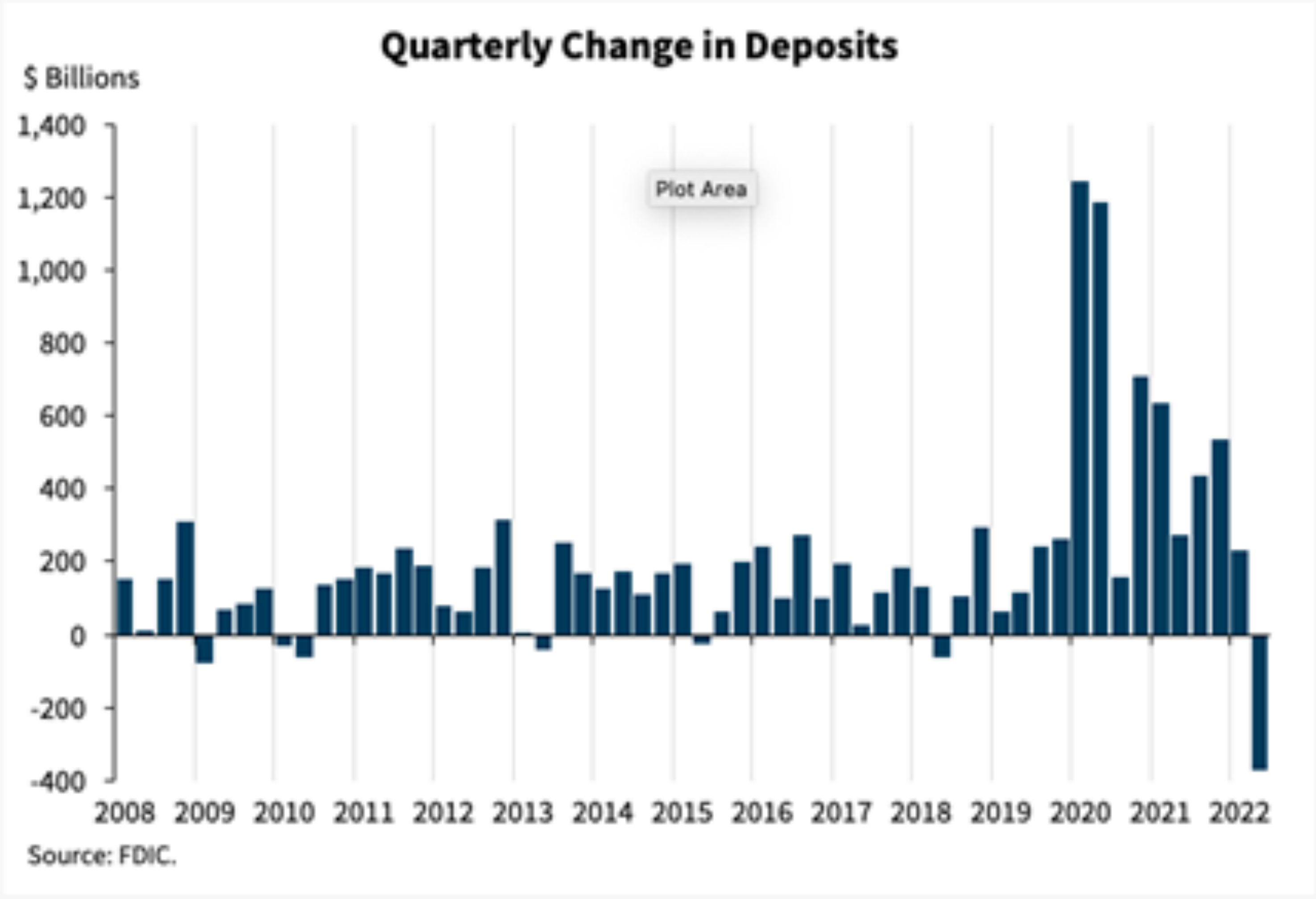
Deals and dollars invested

Equity financings in US VC-backed companies, Q4 2022



Source: Crunchbase as of January 3, 2023, Ernst & Young LLP. We include equity financings into VC-backed companies headquartered in the US. Sources of cash investments include, but are not limited to, VC firms, corporate investors, other private equity firms and individuals.

Correlations: Deposits Started to Leave Banking System

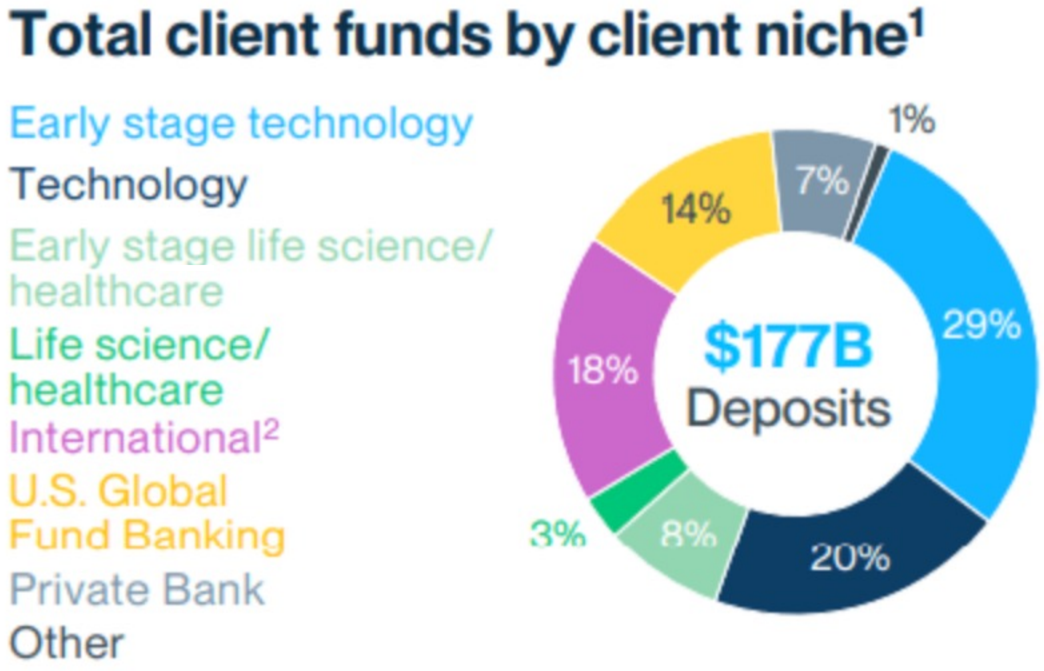


Causes: Silicon Valley Bank's Unique Business Model

- **Founded in 1980s**
  - **Largest California State-Chartered Bank**
  - **Federal Reserve Bank of SF was Primary Federal Regulator**
  - **DFPI was State Regulator**
- **Uniquely Focused on Tech Industry**
  - **Provided Banking Support for Startups, VCs and Established Tech Companies in US, China and Europe**
  - **Also Prominent in Wine Industry in California**
  - **Undiversified Risk Profile**
- **Volatile Deposit Base Tied to Tech Industry Cycles**
- **Assets/Deposits Grew Enormously During Long Tech Boom Cycle**
- **Assets Primarily Securities Not Loans**
  - **Low Loan-to-Deposit Ratio**
- **Almost All Deposits from Corporations/Business-- 94% Exceeded $250,000 FDIC Insurance Cap**

A Key to the Innovation Economy

- Around 50% of US venture-backed tech and life sciences companies bank with SVB



SVB Deposit Base by Customer Type (SVB Q3 Presentation)

Offices and Business Worldwide

Large but Not Giant Bank

Financial highlights
Q4 2022**

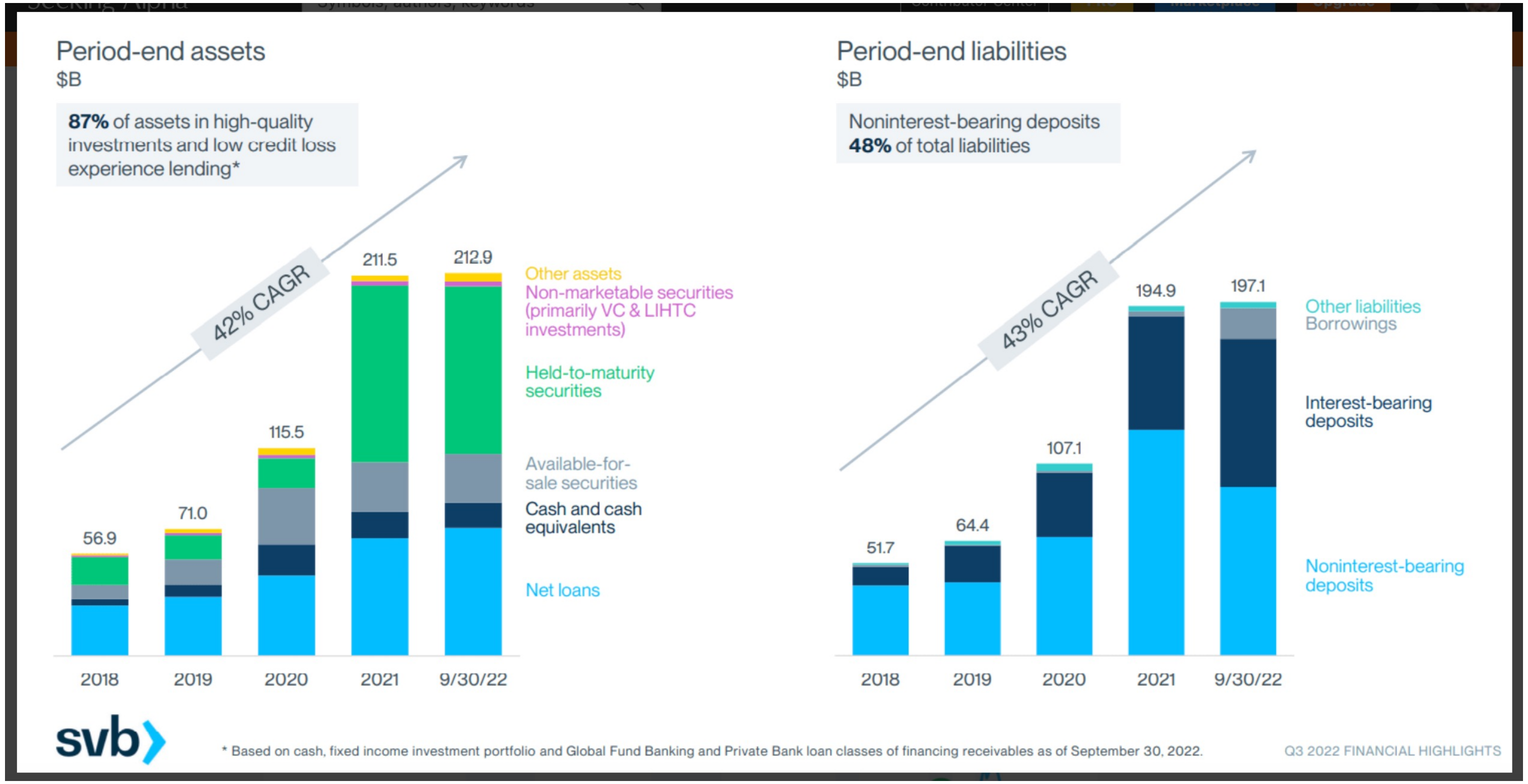
$212B
Assets

$74B
Total Loans

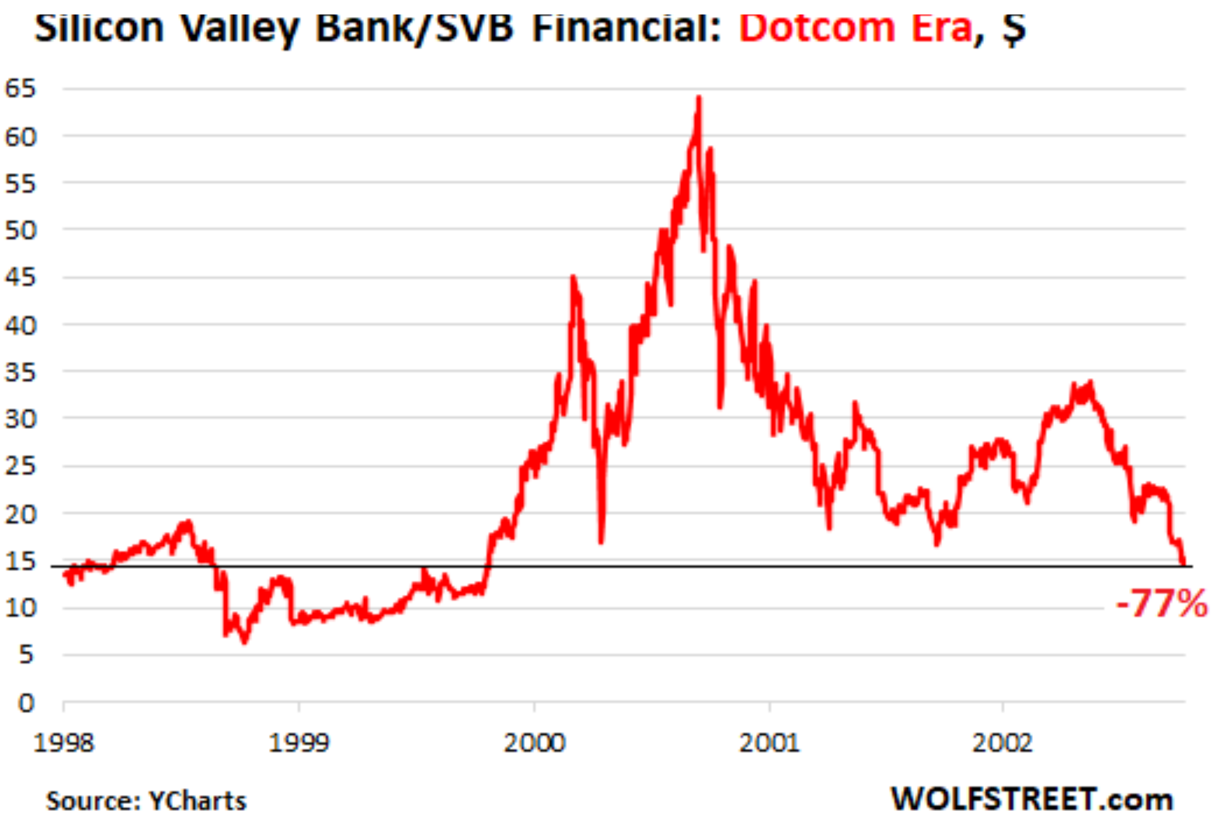
$342B
Total Client Funds

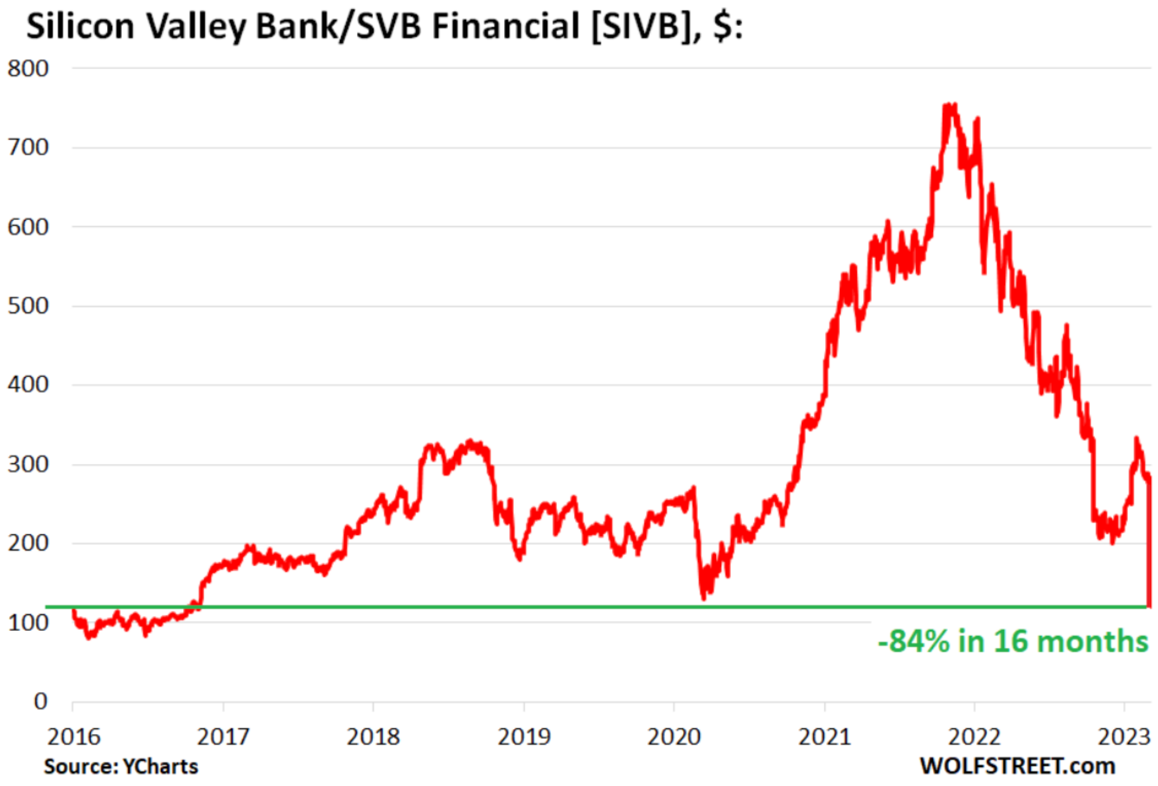
**As reported on a consolidated basis for the period-end December 31, 2022

Recent Accelerated Asset and Deposit Growth

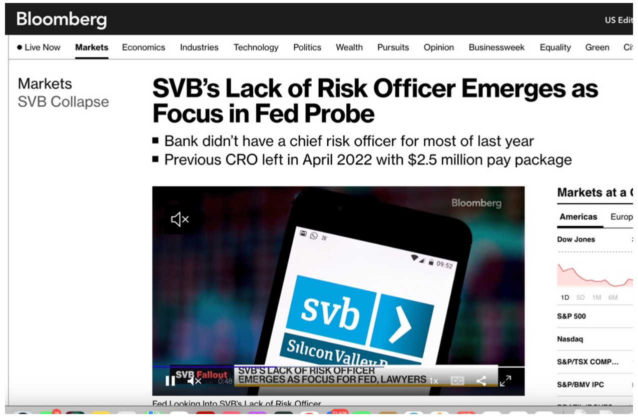


Stock Always Tracked the Tech Markets, Not Other Banks





Causes: Crisis Accelerants ---Poor Risk Management at Silicon Valley Bank


Bloomberg

Markets
SVB Collapse

SVB's Lack of Risk Officer Emerges as Focus in Fed Probe

- Bank didn't have a chief risk officer for most of last year
- Previous CRO left in April 2022 with $2.5 million pay package


Silicon Valley Bank + Add to myFT

Silicon Valley Bank was warned by BlackRock that risk controls were weak

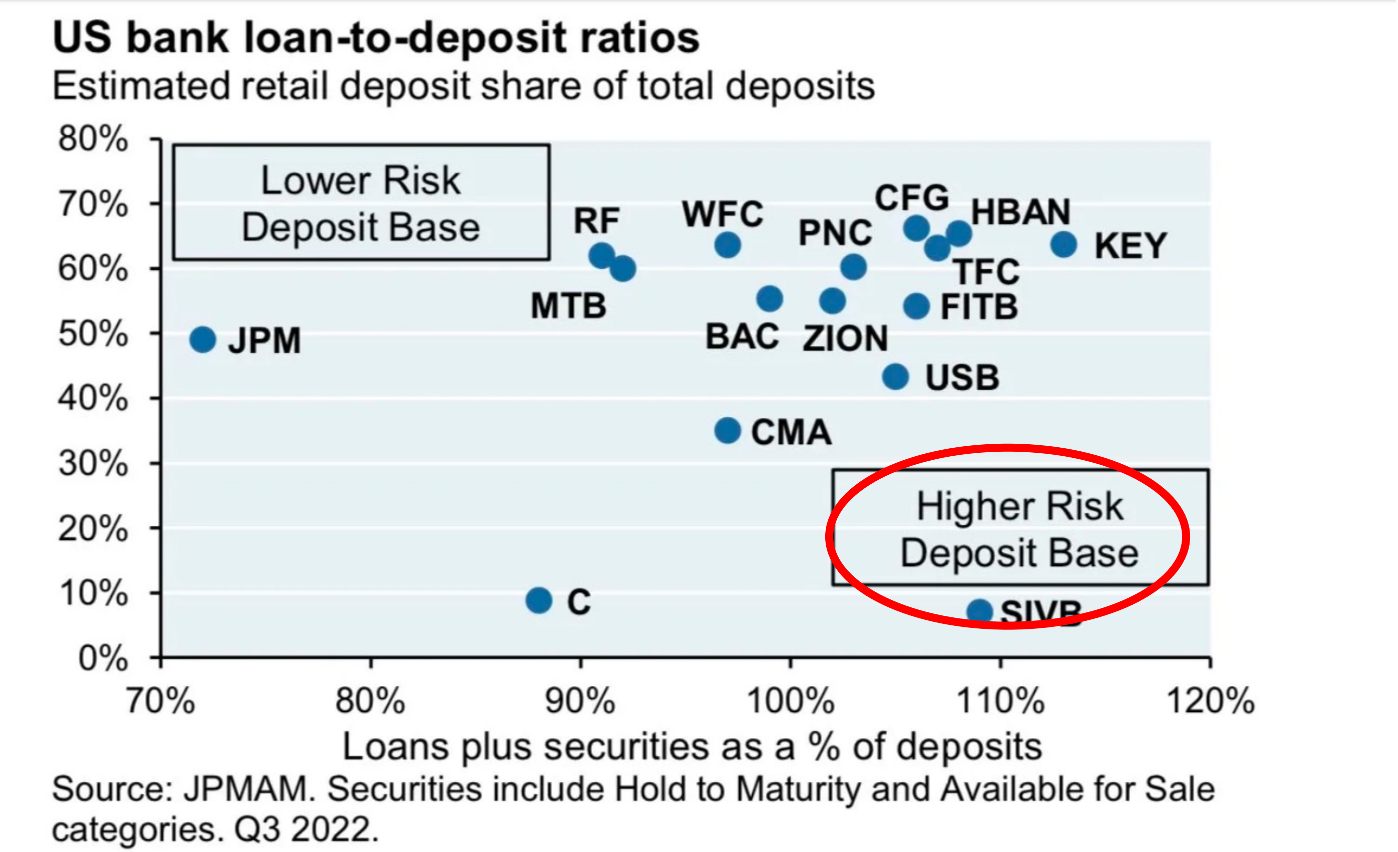
Consultants said systems lagged behind peers more than a year before lender's collapse fomented a banking crisis


How crazy was Silicon Valley Bank's zero-hedge strategy?

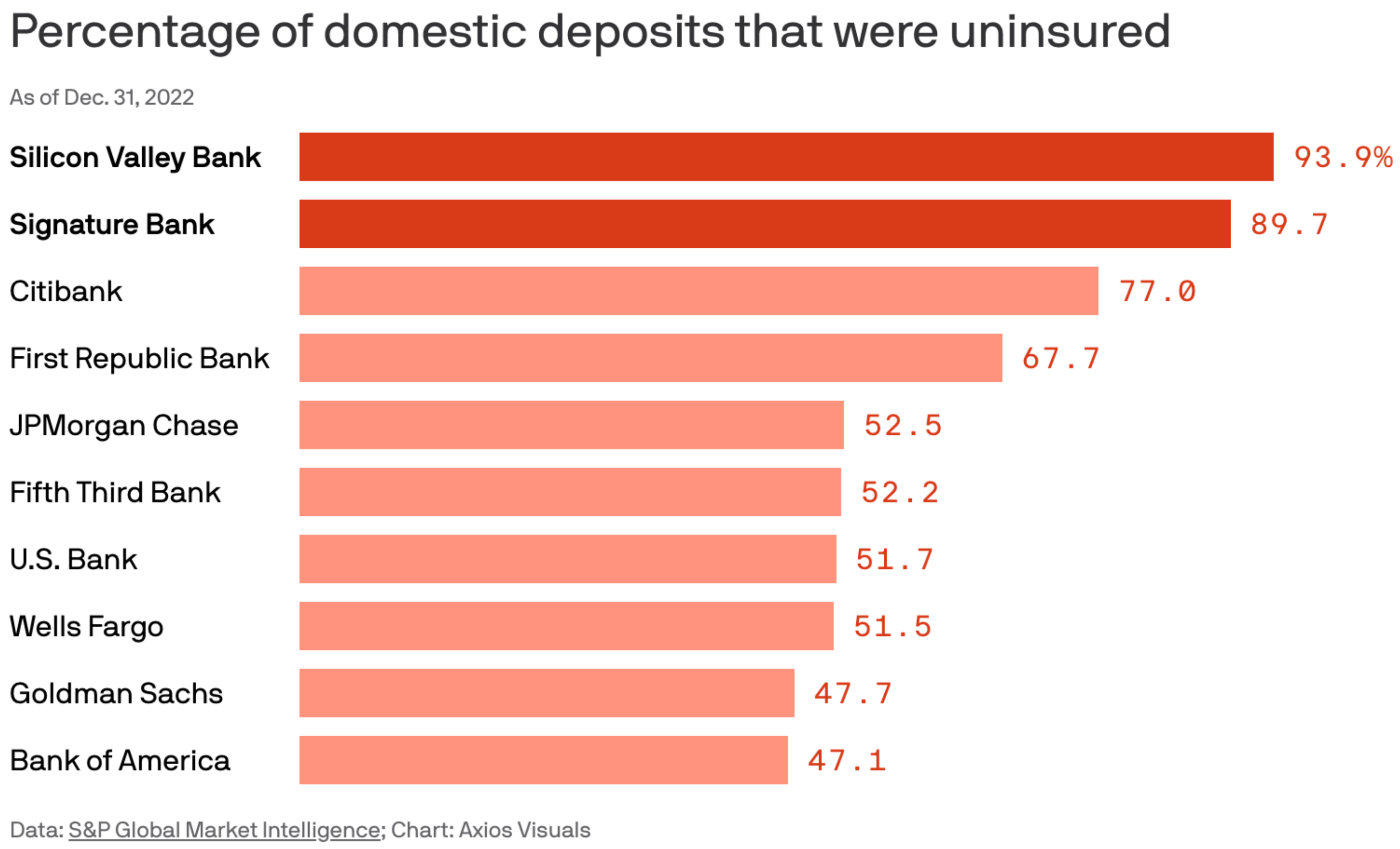
Poor Risk Management Practices

- Fed Governor Barr: ***"SVB's failure is a textbook case of mismanagement"***
- SVB's liquidity risk management practices were deficient.
- Best practice banks seek to understand the sensitivity of their liquidity risk profile to various shocks including contingency liquidity planning scenario exercises.
  - The largest banks go further and are required to calculate the amount of high-quality liquid assets (HQLA) as a percent of stress net cash outflows over a 30-day horizon, referred to as the Liquidity Coverage Ratio (LCR).
  - These banks also must calculate a similar ratio over a one-year horizon on the stability of their funding.
  - But even if SVB had been compliant with LCR, (we'll never know since they weren't large enough to require LCR compliance under revised Dodd-Frank rules that they lobbied heavily for) the size of the bank run would likely have resulted in the same outcome.

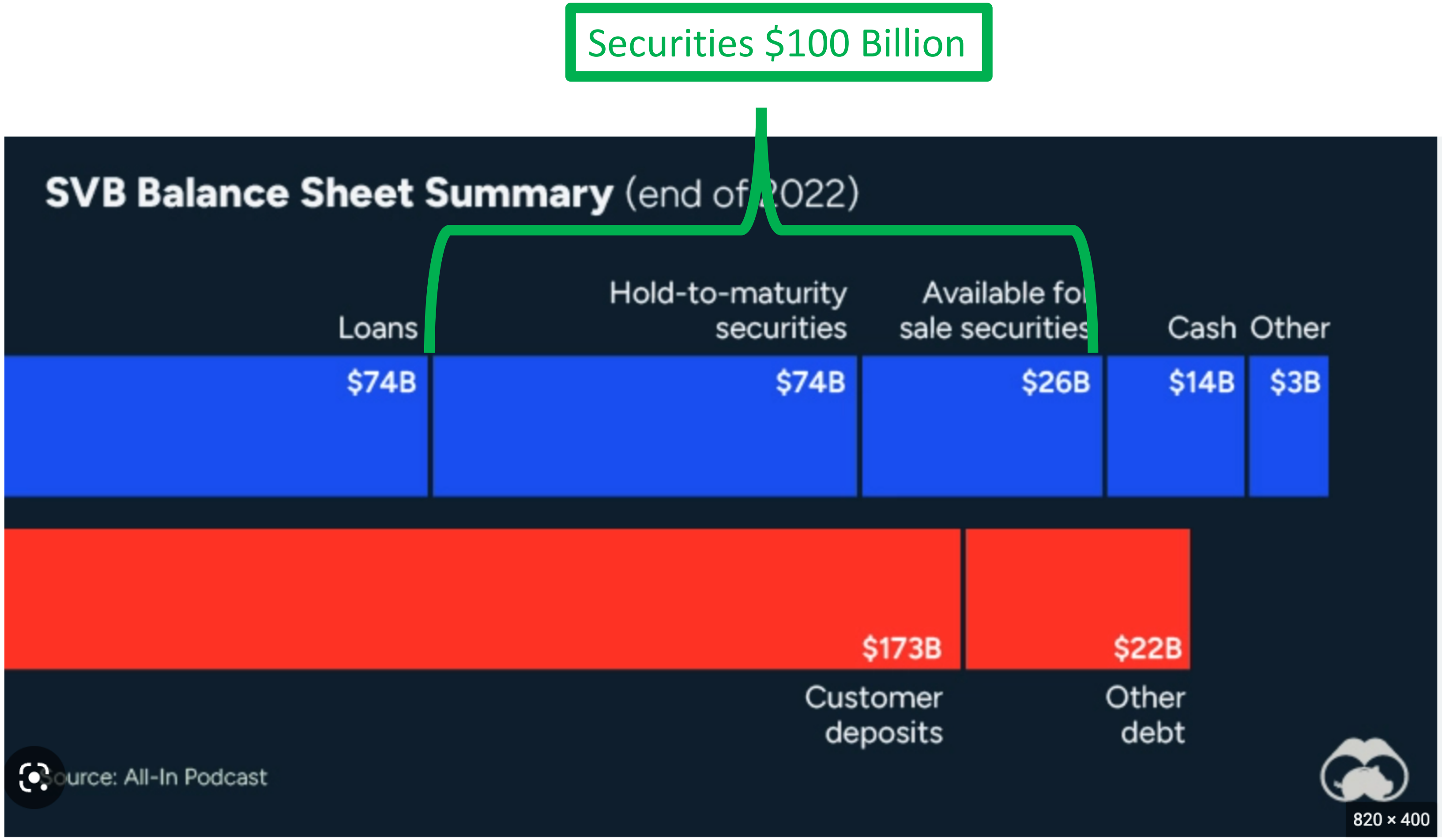
The Risk in a Nutshell—Volatile Deposits Matched Primarily Against Interest Rate-Sensitive Securities



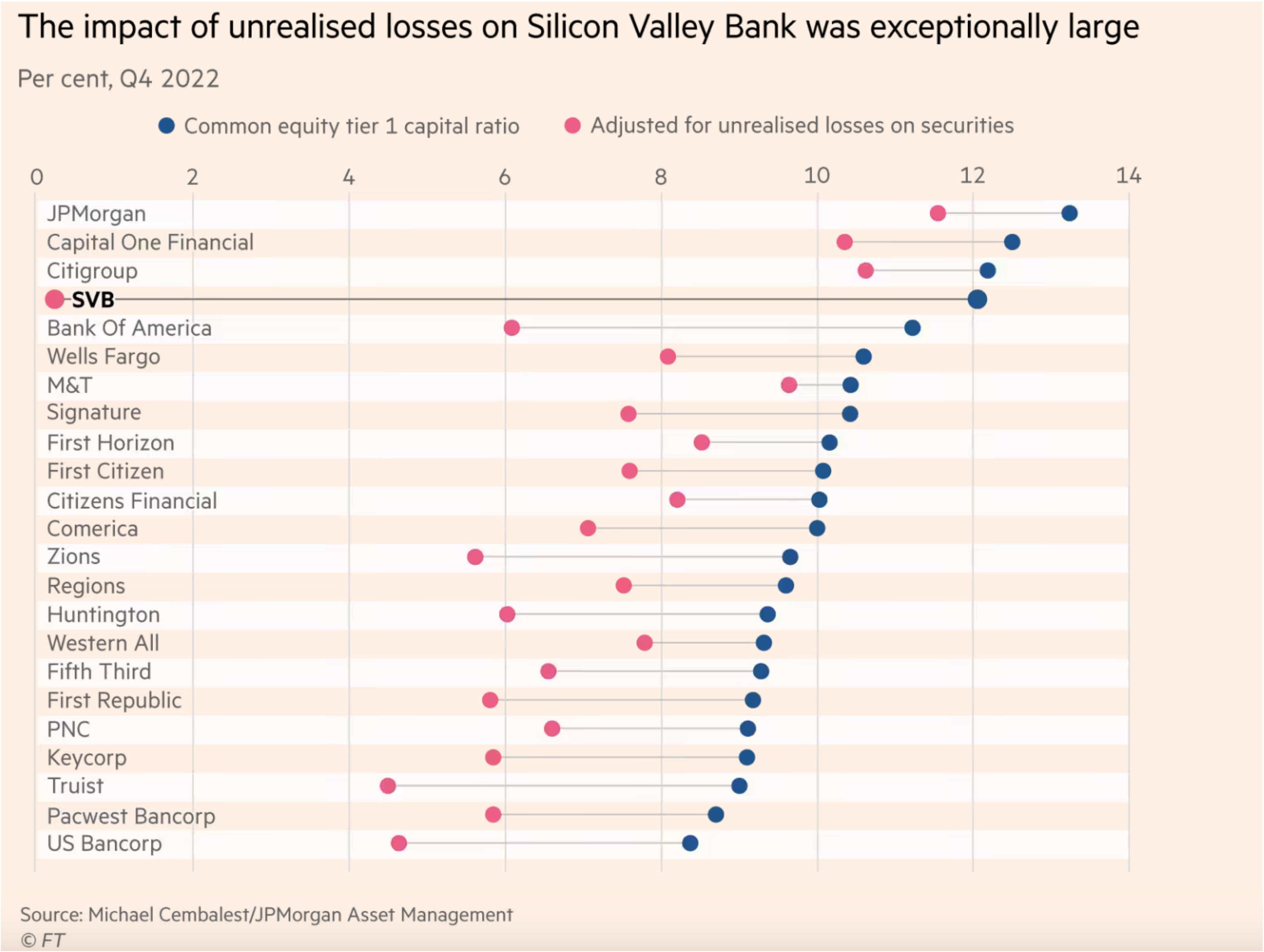
Highest Level of Uninsured Deposits



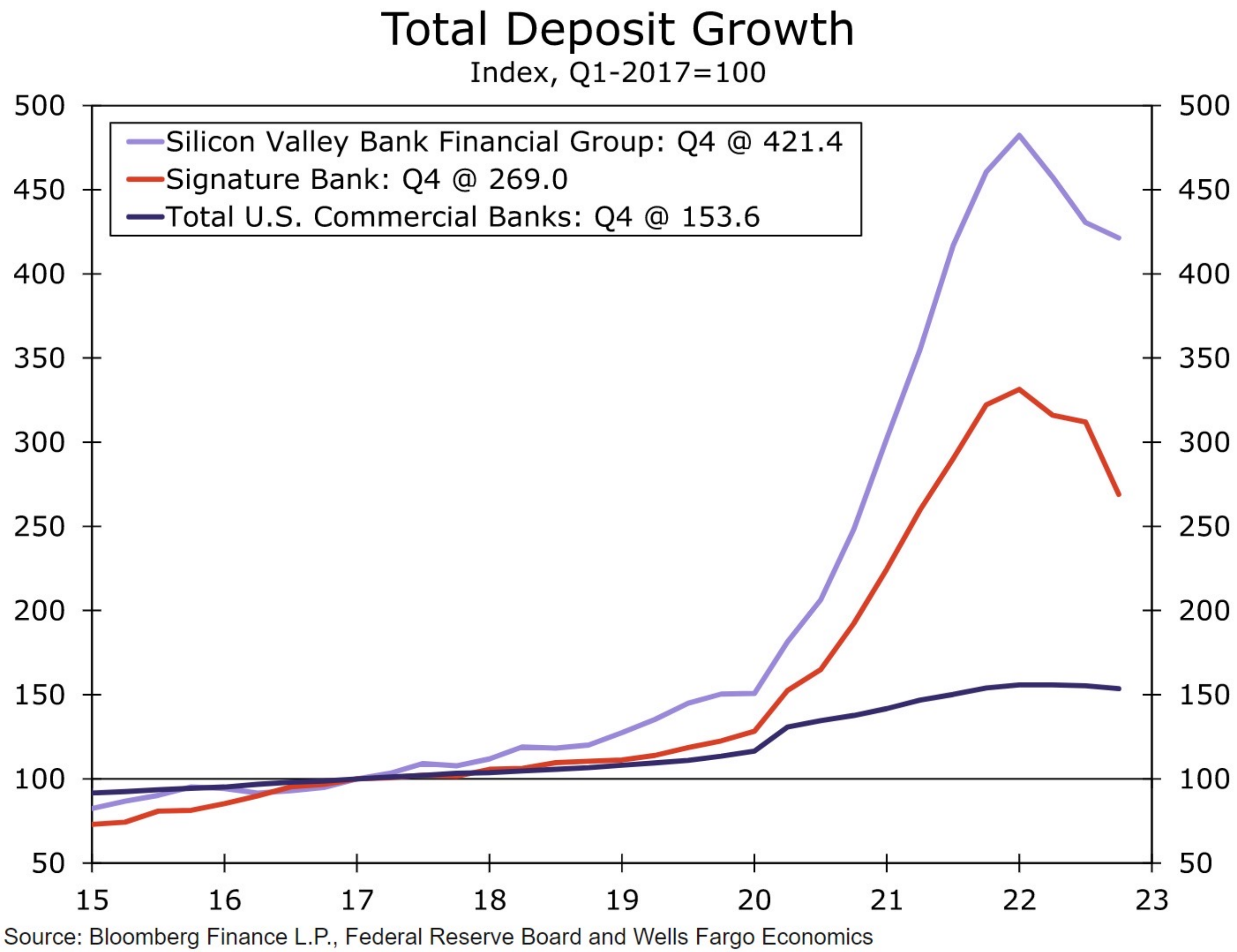
Balance Sheet Assets Primarily Securities



Highest Unrealized Losses on Securities



Deposit Decline Starts at SVB in Mid 2022



Causes: Other Silicon Valley Bank Risk Management Failings –Long Term

- **Failure to Diversify Risk Away from Tech Exposure**
- **The Board Lacked Expertise**
  - Most bank boards today are not equipped to challenge management on risks affecting the enterprise.
  - Of the seven board members assigned to SVB's Risk Committee, only one had any background remotely related to risk management and none, according to the information provided on SVB's 2023 Proxy Statement ever held a senior risk management role such as CRO.
- **Management Apparently Tried to "Play the Yield Curve" to Increase Earnings**
  - Betting on Rates is a Fundamental Risk Error
  - Ignored History of High Deposit Volatility
  - Kept Most Growth on Balance Sheet Rather Than Pushing Off Deposits During Long Zero-Rate Period, In Contrast to Prior Tech Cycles
  - Matched Deposits with Securities

Causes: Other Silicon Valley Bank Risk Management Failings—Short Term

- **No Chief Risk Officer for Critical Months**
- **Alleged Reversal of Crucial Interest Rate Hedge on Securities to Meet Earnings Target**
- **Alleged Replacement of Liquidity Risk Model When it Gave the "Wrong" Answer About Deposit Volatility**
- **Apparent Decision Not to Shorten Securities Portfolio Duration During Rate Hikes**
- **Lack of Preparation for Run/Scramble to Pledge Securities to Fed Under Emergency TLAC Facility**
- **"Hopium" Approach to Immediate and Existential Risk—"We'll be OK, CNBC is Saying that the Fed will Reverse Policy and Interest Rates are Going to Decline"**

Causes: Timing and Messaging on Moody's and the Goldman Capital Raise/Securities Restructuring

- **In early March, after Moody's privately warned Silicon Valley Bank that it faced a possible downgrade in the rating of its bonds, the bank called on Goldman Sachs for advice to help it shore up its books.**
- On March 8, Goldman purchased the SVB AFS securities portfolio at a discount to its market value. After the market closed, SVB announced that it had realized a $1.8 billion loss on the sale, without disclosing the buyer
- Simultaneously, SVB said it would sell $2.5 billion in shares to raise capital. The capital raise was ultimately unsuccessful
- **"Goldman's plan for the bank had a fatal flaw. It underestimated the danger that a deluge of bad news could spark a crisis of confidence, a development that can quickly fell a bank." --New York Times**

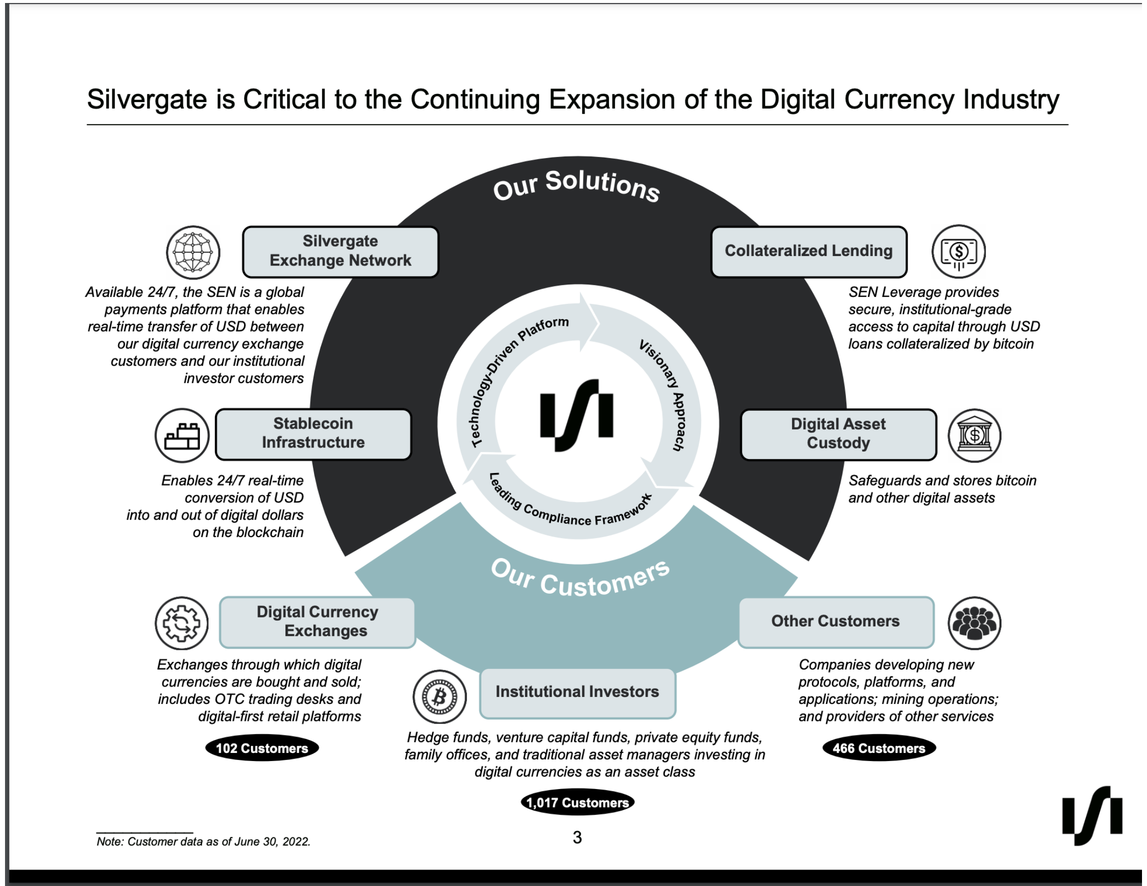
Causes: Silvergate Bank Failed at Same Time as SVB Securities Sale/Capital Raise Announced

Silvergate

Silvergate Bank Collapses

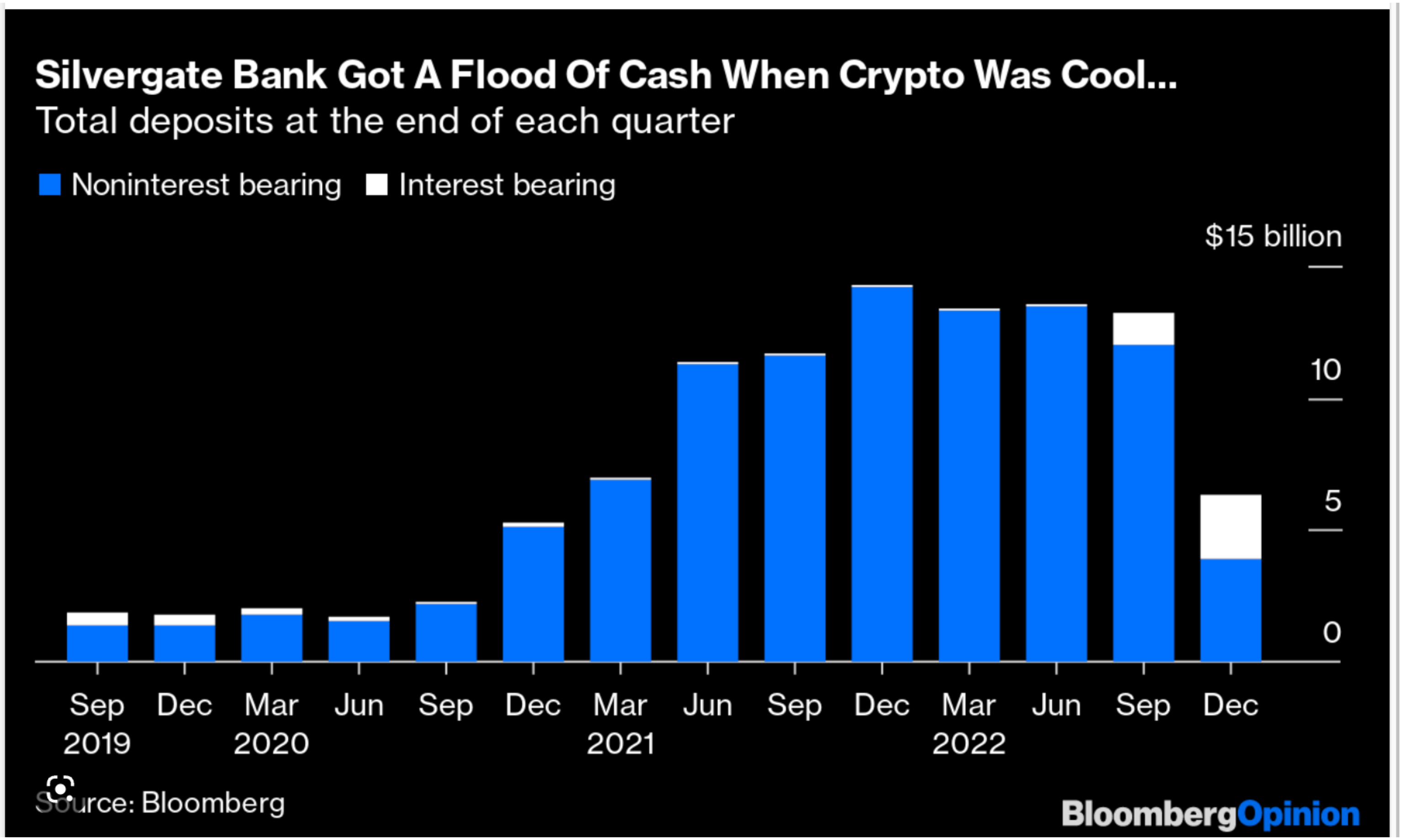
The California bank's stock fell nearly 44% on Wall Street, after it announced it was going out of business.

LUC OLINGA • MAR 9, 2023 8:07 AM EST



Silvergate Bank: Designed to be "Safe" Crypto-Based Bank But Correlated Deposit Losses Caused Quick Failure

Silvergate



Causes: Social Media and Internet Speed

TechCrunch+ Market Analysis

Venture firms are advising portfolio companies to move money out of SVB

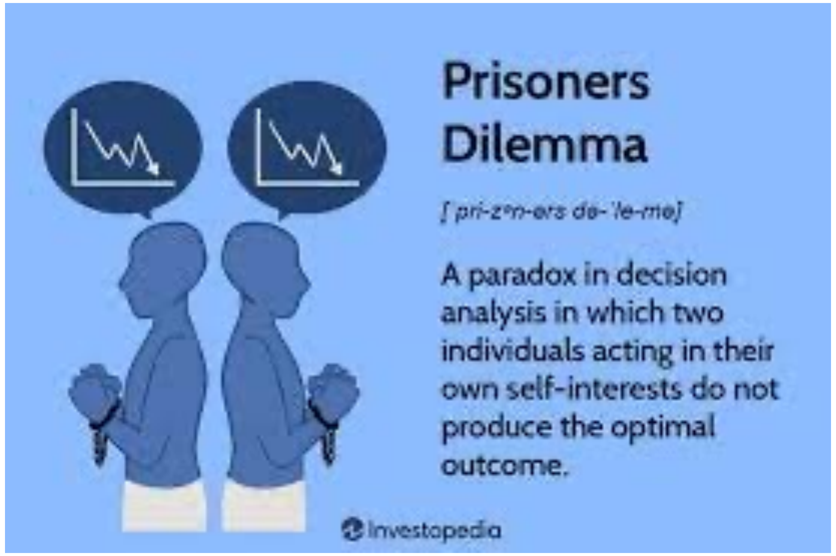
Jitters continue after the bank's CEO asks customers for calm

SVB collapse was driven by 'the first Twitter-fueled bank run'

By Jennifer Korn

Updated 1:25 PM EDT, Tue March 14, 2023

Bank Runs are a Form of Prisoner’s Dilemma



VENTURE CAPITAL

The Prisoner’s Dilemma That Drove SVB’s VC Bank Run

Lon Harris - Mar 10 2023

- Once one starts it’s “Devil Take the Hindmost”

Effects: Thursday/Friday 3/09-3/10 Deposit Run

- **Too Many Volatile Uninsured Deposits**
- **Too Many “Underwater” Securities**
- **Poor Understanding of Risk and Vulnerability**
- **Spooked by Moody’s Downgrade**
- **Botched Messaging on Securities Sale/Capital Raise**
- **Silvergate Bank Fails**
- **Withdrawals at Internet Speed**
- **Unprepared to Post Collateral in Timely Manner**

Equals= Worst Bank Run in US History

- $42 Billion Withdrawn in Half a Day
- $100 billion was Headed Out the Door the Next Day
- Compare to $17 Billion in 8 Days at WaMu in 2008
- Unable to Secure Liquidity to Pay Off Depositors and Became Insolvent
- **Seized by FDIC at DFPI Request**

Effects: DFPI Seizure & Initial FDIC Receivership

- Shareholders Effectively Wiped Out
- Insured Depositors Fully Protected, Uninsured Not
- DINB Receivership Initially Assumed a Liquidation Rather Than Whole Bank Sale
    - Expected Monday Distribution of Part (35%?) of Uninsured Deposits
    - Remainder to Come Later with Potential for 10-20% Loss
    - Sale of Assets and Liabilities as Whole or in Parts
- Weekend Confusion and Communication Failures at FDIC
    - There Hadn't Been A Failure Like This in Years—No Public Understanding of What it Meant

Effects: Contagion Runs On All Banks with High Uninsured Deposit Balances Over Weekend

- First Republic, PacWest, Western Alliance, Zions Experienced Runs
- Signature Bank Seized by FDIC Over Weekend

on each bank's investment securities as a share of its deposits

Source: Federal Financial Institutions Examination Council • Note: Includes both "held-to-maturity" and "available-for-sale" securities, meaning both long- and short-term investments.

Effects: Fallout for California

TOP STORY

Here's what the Silicon Valley Bank collapse could mean for the Bay Area economy

CHASE DiFELICIANTONIO San Francisco Chronicle Mar 12, 2023 Updated Mar 12, 2023 0

What happens to Silicon Valley without Silicon Valley Bank?

A regional bank helped the tech industry grow. Now it might need to shrink.

By Sara Morrison | sara@vox.com | Mar 16, 2023, 6:10am EDT

Silicon Valley Bank's Collapse Causes Start-Up Chaos

Young companies raced to get their money out of the bank, which was central to the start-up industry. Some said they could not make payroll.

MAP: Bay Area Affordable Housing Projects Impacted by Silicon Valley Bank's Collapse

By Sydney Johnson Mar 16 **Save Article**

California Relies on Tech

- **Tech accounts for nearly <u>one-fifth of the economic value</u> produced in the state.**
- **The $520 billion that it contributes represents more than a quarter of all U.S. tech output – more than the next four states combined.**
- **California leads the nation in tech businesses and dominates the IPO pipeline with 56% of the nation’s private companies valued at more than $1 billion.**
- **Silicon Valley ranks as the <u>world’s No. 1 startup ecosystem</u>, followed by Los Angeles at No. 6 and San Diego at No. 21.**

Effects: Second Government Intervention and Bridge Bank

- **Declaration of Systemic Crisis by Treasury, Fed and FDIC**
- **<u>All Deposits Guaranteed by FDIC at SVB and Signature Using "Systemic Risk Exception</u>"**
- **Fed Provides Loan Facility to All Banks with Collateral at Par**
- **SVB and Signature Made "Bridge Banks" to Prepare for Marketed Sale of Entire Bank (or most)**
- **Resumed Normal Operations on Monday**
- **Holding Company at SVB Declares Bankruptcy/Other Subsidiary Value Issues**

Effects: Sale of Silicon Valley Bank Deposits and Assets to First Citizens' Bank

First Citizens BancShares®

First Citizens Bank Announces Acquisition of Silicon Valley Bridge Bank, N.A.

March 27, 2023

First Citizens Bank + svb

SVB Private | Silicon Valley Bridge Bank

Effects: Sale of Silicon Valley Bank Deposits and Assets to First Citizens' Bank

Acquired certain assets and assumed certain liabilities of Silicon Valley Bridge Bank, N.A. from the FDIC

Acquisition details

- We acquired **total assets of $110.1 billion** with a **$16.5 billion discount bid on assets**, consisting of:
  - **$72.1 billion** in loans
  - **$56.5 billion** in deposits
  - No investment securities acquired
- Option to purchase all bank branches and corporate locations.
- Retaining employees in the acquired revenue-producing businesses and those necessary to manage operations to support those businesses.
- FDIC received a value appreciation instrument from First Citizens BancShares, Inc. valued at up to $500 million (payable in cash) and exercisable until April 14th, 2023.

Downside protections

- Transaction structured to **limit liquidity and credit risks** to First Citizens:
  - Asset discount and loss share agreement with the FDIC provides downside protection against credit risk.
  - Five-year loss share agreement stipulates that the FDIC will reimburse First Citizens for 50% of losses on commercial loans in excess of $5 billion.
  - Entered into a liquidity facility with the FDIC to provide additional contingent funding if needed.

Integration

- All regulatory approvals received and transaction has closed.
- All branches now operating as a division of First Citizens Bank.
- All depositors will continue to have access to their funds.

Preliminary Acquired Assets & Liabilities (1)

($ in millions)

Assets		
Cash	$	35,264
Gross loans		72,114
Earning assets	**$**	**107,378**
Other assets		2,704
Total assets	**$**	**110,082**

Liabilities		
Deposits	$	56,491
Borrowings (2)		34,605
Other liabilities		2,536
Total liabilities	**$**	**93,632**

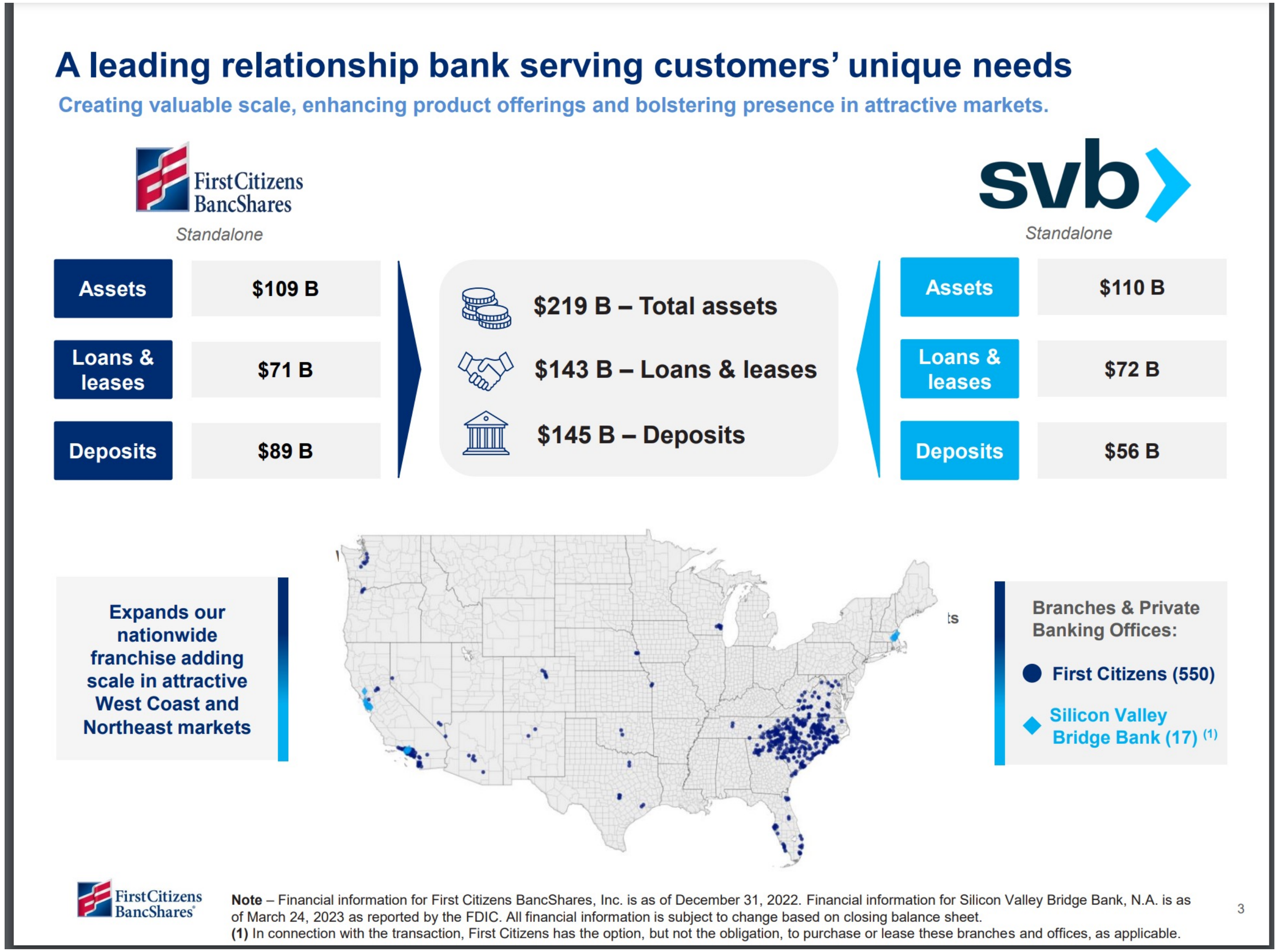
Discount bid on assets	**$**	**16,450**

First Citizens BancShares

(1) Assets and liabilities as of March 24, 2023 as provided by the FDIC. Subject to change based on closing balance sheet. Asset and liability data does not include purchase accounting marks.
(2) In connection with the acquisition, First Citizens entered into a five-year $35 billion note payable to the FDIC bearing an annual interest rate of 3.50%. Amount is estimated based on the March 24, 2023 balance sheet provided by the FDIC. Subject to change based on closing balance sheet.

6

Who is First Citizens' Bank?



Unanswered Questions on Silicon Valley Bank

What Did Management Know and When?

- Many Indications That Outside Risk Advisors had Warned About Risks and Recommended Changes
- Expected Deposit Growth and Shrinkage in Tech Cycle
- The CRO Question/The Securities Hedge Reversal/The Change in Risk Models
- 10b5-1 Insider Sales

What Did Board Know and When?

- 18 Risk Committee Meetings in 2022

What Did Regulators Know and When?

- Fed Intensified Supervision in 2022
- MRAs and MRIAs
- Role of California DFPI
- Why Did They Wait So Long? Why Was FDIC Communication so Weak?

Impact of Moody’s Downgrade and Capital Raise/Securities Sale

- Unnecessary Panic or Necessary Prevention?
- Why Announce into Silvergate Bank Hurricane?

Holding Company Liability and Securities Brokerage and Venture Capital Investment Subsidiaries

Key Policy Issues on Silicon Valley Bank

How Should Management be Treated Given Risk Management Failures?

- “Clawbacks” of past compensation
- Industry Bans

Should Bank Boards be Required to Have Expert Members?

- SIVB Risk Committee included a Napa vineyard owner, a retired healthcare CIO, a former U.S. Treasury undersecretary, venture capital partners and consulting firm heads, but no financial services risk experts
- California Could Change this for DFPI-Regulated State Banks

Did Regulators Have the Right Powers or Could They Have Used Existing Powers More Effectively?

- Is New Legislation Required?

Does the Definition of a Systemic Bank Need to be Revisited?

- Size, Deposit Profile, Growth Trajectory
- Regional or Sectoral Importance to Economy

Should Liquidity and Other Standards Applied to Biggest Banks be Applied to Smaller but Still Large Banks?

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First Republic Bank Impact

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First Republic Bank Impact

- "Like a Bystander Caught in a Drive-By Shooting"
- Business Mix Similar to Silicon Valley Bank's Boston Private Bank Business
  - Personal Service Orientation
  - Focused on High Earners with Assets but not Super-Rich
- Deposits Two-Thirds Uninsured
  - Far Smaller % than Silicon Valley, Silvergate or Signature
- Balance Sheet Grew Rapidly in Zero Rate Environment Supported by Low-Cost Deposits
- Low-Risk Mortgage, Apartment and Commercial Real Estate Loans but Mostly at Low Fixed Rates with Long Duration
- Earnings Therefore Sensitive to Interest Rate Changes
- Panic Deposit Run Withdrawals Required Massive Liquidity Support from Fed, FHLB and 11 Large Banks
- Stable Now But Strategically Challenged
- Regulated by DFPI and FDIC (not Fed)

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First Republic Bank Loans

2002–2022: Stability – Loan Type

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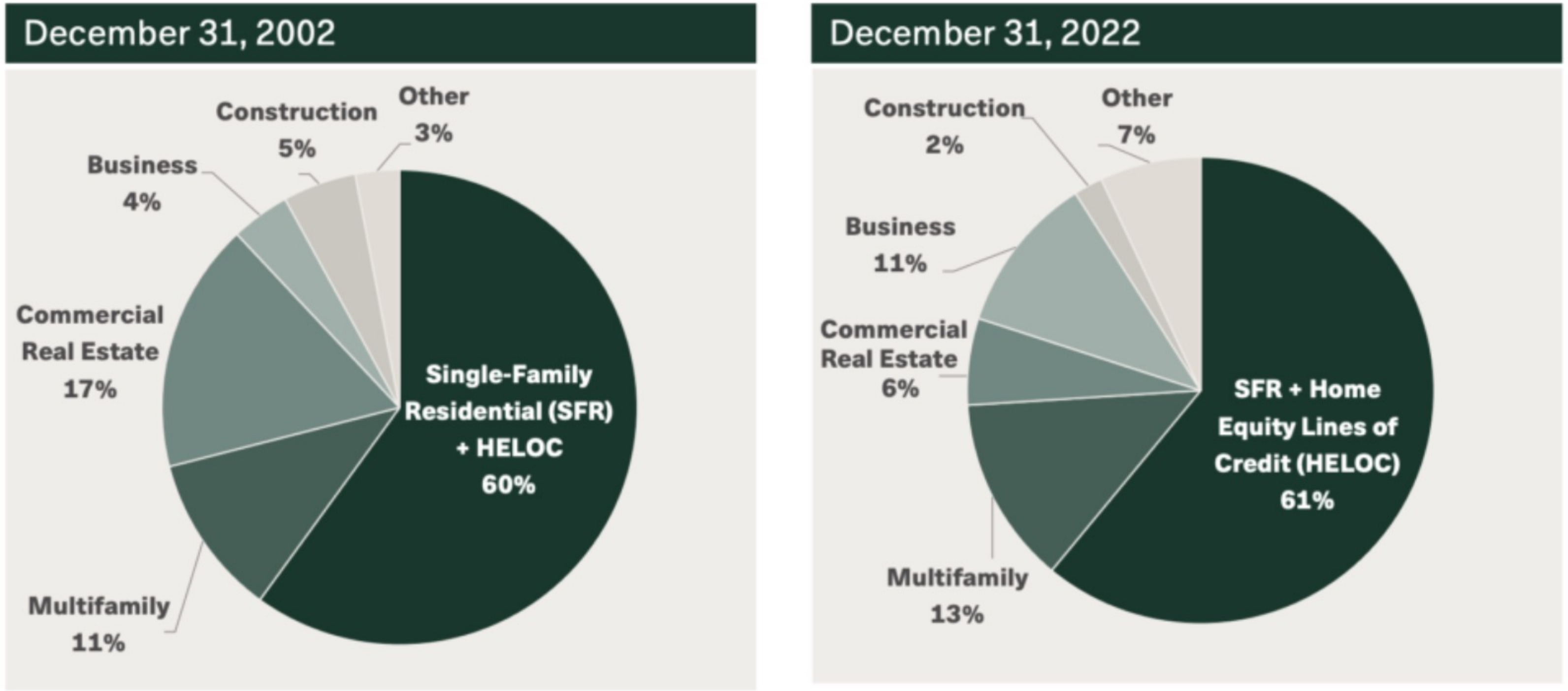
Very consistent loan mix, with over 80% of loans collateralized by real estate [1]



SFR + HELOC = 60%

Virtually no change in 20 years

SFR + HELOC = 61%

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First Republic Bank Credit Quality

Exceptional Credit Quality

First Republic Bank

Only 8 bps of cumulative losses on all loans originated since founding in 1985 [1]

($ in millions)	Years of Origination	Cumulative Net Losses [2]		Total Originations
Residential real estate [3]	**1985–4Q22**	**$81**	**0.03%**	**$240,720**
Multifamily/commercial construction [4]	1990–4Q22	38	0.23%	16,476
Commercial real estate	1989–4Q22	58	0.26%	22,457
Multifamily	1989–4Q22	62	0.16%	39,343
Business [1], [5]	2000–4Q22	91	0.09%	95,851
Unsecured	2000–4Q22	14	0.11%	12,593
Stock and other secured	2000–4Q22	3	0.01%	27,282
Cumulative	**1985–4Q22**	**$347**	**0.08%**	**$454,722**

8 bps of cumulative losses in 37 years

$455 billion of originations in 37 years

The median attributes of clients who have obtained home loans from us over the last two years are as follows:

	Median
Loan Size	$900,000
LTV	60%
Liquidity	$685,000
Credit Score	780

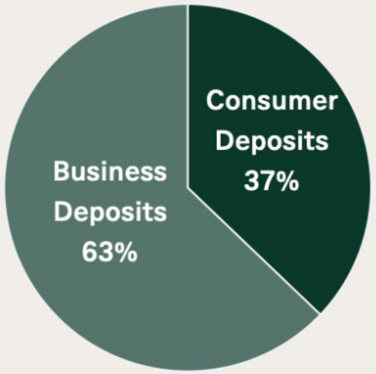
First Republic Bank Deposits Pre-Run

Diversified Deposits

FIRST REPUBLIC BANK

Reflects long-term and deep relationships

By Source 12/31/22



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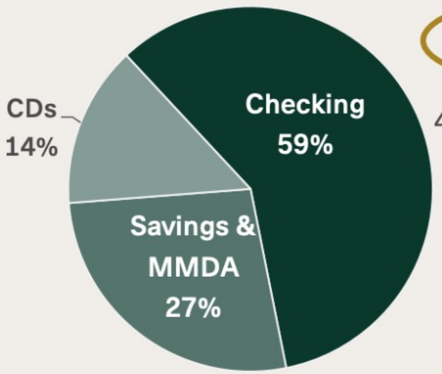

99 bps

4Q22 Average Cost of Total Deposits

Scalable Operational Size

First Republic has only approximately **1/5th** the number of deposit accounts compared to the average $100–250 billion U.S. bank: (1), (2)

- Greater ability to provide extraordinary service per relationship
- Greater ability for oversight per relationship

First Republic Bank Deposit Growth

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First Republic Bank
Simple Model

Appendix: Business Activities Not Undertaken

FIRST REPUBLIC BANK

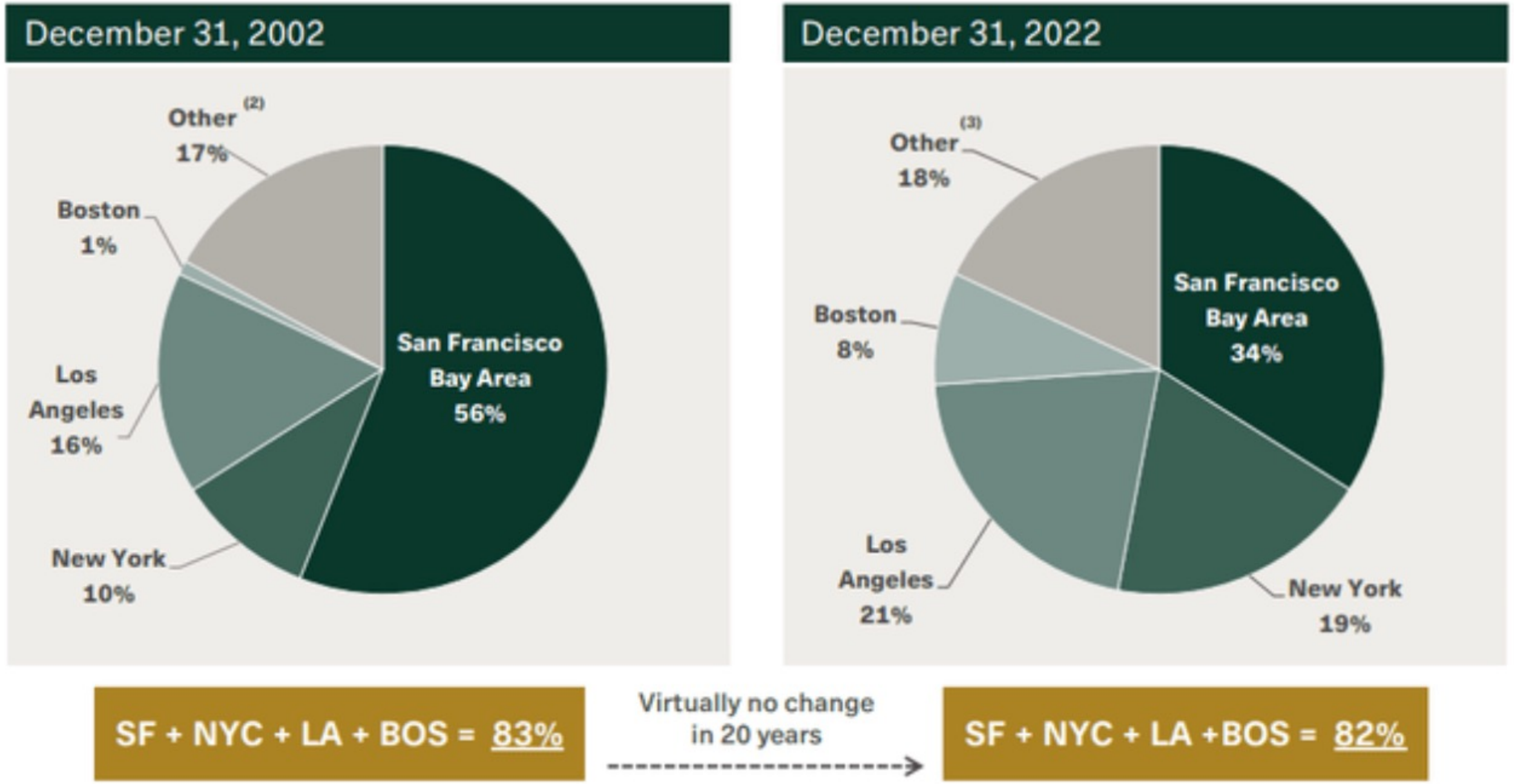
This list includes the activities in which we do not currently intend to engage. As the Bank evolves, we will maintain and reevaluate this list periodically to ensure it continues to reflect our strategy and capabilities.

- No proprietary trading
- No market making in equities
- No trading assets or liabilities
- No cross-currency swaps
- No clearing services
- No banking or custody services to digital asset exchanges or service providers and no direct Bank investments in digital assets
- No underwriting transactions in debt and equity markets
- Not a commercial paper issuer, backstop provider or guarantor
- No underwriting of IPOs
- No exotic derivatives
- No junk bond investments [(1)]
- No foreign sovereign debt investments
- No wholesale lending or borrowing of securities to or from financial institutions
- No depository institution, foreign bank or credit union debt positions
- No loans to foreign governments
- No credit card issuance or auto loan originations
- No low-doc or no-doc subprime lending
- No negative amortization loans (minimal amount in runoff)
- No reverse mortgages
- No foreign offices
- No open market common stock buybacks
- No factoring
- No sale of loan servicing on originated loans [(2)]
- No commercial letters of credit (i.e., trade finance)
- No conduit securities lending transactions
- No domestic or foreign holding company and no holding company subsidiaries

First Republic Bank does not directly lend to businesses operating in the following environmentally sensitive industries:

- Fossil fuel extraction
- Fossil fuel pipelines
- Natural gas distribution
- Fossil fuel electric power generation
- Nuclear electric power generation
- Hydroelectric power generation
- Forestry
- Mining and quarrying
- Commercial fishing

First Republic Bank California Focus More Than 55%



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First Republic Bank Today—Fitch Ratings

- **"Presently, Fitch estimates that, due to the higher cost of funds, FRB is currently operating at a net loss that is not sustainable over the longer term absent a balance sheet restructuring.**
- **Furthermore, to the extent that FRB is required to repay the $30 billion at the end of its term, it will have to raise liquidity by selling assets.**
- **This is complicated by the fact that, similar to other U.S. banks, the fair market value of securities and loans are below their book value and a sale of assets would likely require a significant recapitalization.**
  - FRB's balance sheet is concentrated in relatively long duration municipal securities as well as residential mortgage loans. As of 4Q22, FRB's securities and loans carried unrealized losses totaling 16.3% and 13.3%, respectively, relative to amortized cost."

opportunities both domestically – including California use cases – and internationally. Fourth, I discuss policy recommendations. Finally, I offer concluding thoughts.

II. It is a critical moment for crypto policymaking and regulation.

Let me begin by addressing the title of this hearing.

I won't mince words: it was a devastating year for many engaged in the industry. I am constantly aware of the people who are behind these numbers and how the greed and irresponsibility of a few leaders in the crypto space affected so many. But we should also be clear that this is what was at the core of the negative headlines: people. The reasons to be horrified by the actions of these few individuals is well-covered territory.

I appreciate the nuance in addressing the specific events. As I've said many times, the collapse of FTX does not mean the collapse of crypto, as some have asserted.

In fact, polling data confirms that there is sustained, and even growing, interest in crypto and Web3. Morning Consult data found that crypto ownership remains stable, despite the industry volatility. Almost 19 percent of U.S. adults say they own crypto. This is consistent with data released in January 2022. So, those who own crypto are in it for the long-haul.[1] A poll that CCI conducted ahead of the midterm elections found that nearly 1 in 2 people on both sides of the aisle said that crypto is a long-term part of the economy.[2] Recent private polling data has even found an uptick in activity. In the unpublished poll conducted in January 2022, 25 percent of those surveyed said they had invested in, traded, or used a cryptocurrency – up from 18 percent in July 2022.[3] This suggests that there is sustained and increased interest post-FTX.
On the build side, we are seeing deepened investment of those who really believe in the promise of the technology. Electric Capital's 2022 Developer Report, based on 250 million code commits across open-source repositories, found a 5 percent increase year-over-year in crypto developers and 122 percent increase over three years.[4] Overall growth is good, but dig into the data, and there's a more interesting story: Last year, there was an 8 percent increase in full-time developers and 8 percent decrease in one-time developers. So, we are seeing the exit of "crypto tourists" who are there just for the quick gains and bull markets, amidst those that are actually building crypto products. I take this long-term outlook as a very good sign for the space.

Indeed, the events highlight some of the benefits of the technology. Crypto came out of the 2007-2008 financial crisis, and a desire to create a system that provided an alternative to the

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[1] https://morningconsult.com/cryptocurrency-insights-hub/
[2] https://cryptoforinnovation.org/1-in-7-voters-own-crypto-with-support-across-party-lines/
[3] Unpublished private polling data conducted by an industry organization.
[4] https://www.developerreport.com/developer-report

irresponsibility we saw in some institutions.[5] We have seen decentralized projects survive, and even grow, in bear markets because of intentional design choices.[6] And, where there was overlap between FTX and decentralized finance, we were able to see vulnerabilities through on-chain data and automated execution meant "Alameda's outstanding exposure to DeFi protocols [was] minimal because there [was] no wiggle room to renegotiate with or seek extensions from DeFi protocols."[7] As such, the systems remained resilient.[8]

There is still a long way to go in terms of security, user experience, and learning about optimal incentive design, among other things. But, as one group put it: "the vision of [decentralized finance] is a financial system where what happened at FTX is not just improbable, but impossible."[9] This may explain why we have seen continued growth in the number of DeFi users across projects, even following the FTX events.[10]

So, as more people become interested in crypto, it's critical to have frameworks in place that protect consumers and foster innovation – and I'll get into what that might look like later in my testimony.

The FTX events show that there is already a framework in place for bad actors. Sam Bankman-Fried being charged with eight distinct criminal counts shows that bad behavior in the crypto ecosystem is already subject to a variety of laws and regulations. There are (subject to the legal process) consequences when someone (or a group of individuals) breaks the law. But for some, this may be too little, too late.

How do we prevent something bad from happening in the first place – and what are the rules of the road for honest actors? This is the question for governments around the world in 2023.

There have been long-standing calls from the industry for regulatory clarity, but the urgency and pressure on governments are now higher than ever. While there were some who were content to sit this issue out, the events of last year make it almost impossible for policymakers and regulators not to have a view on these important topics.

Proactive policymaking is key to consumer protection. There are real humans behind these transactions and stories. They deserve to make the most of the opportunity that crypto presents, while being protected from undue risks. Education and grassroots outreach efforts – across consumers, policymakers, and industry – are key. There are many in the crypto industry who

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[5] https://www.coindesk.com/podcasts/the-breakdown-with-nlw/13-years-on-the-meaning-of-chancellor-on-the-brink-of-second-bailout-for-banks/
[6] https://www.coindesk.com/layer2/2022/07/22/why-defi-might-be-safer-than-traditional-finance/
[7] https://www.galaxy.com/research/insights/ftx-contagion-impact-on-defi/
[8] *Id.*
[9] https://decrypt.co/115149/defi-is-the-answer-to-the-ftx-crisis-but-we-must-get-better-at-communicating-it
[10] https://dune.com/overthedunes/total-defi-users-over-time

value consumer protection above all and eagerly want to partner with policymakers and regulators alike.

To move the needle on this issue, we need thoughtful work on outreach and education.[11] This includes: (1) Community engagement models that involve "building with, not for." Members of communities know people's stories, their needs, and the barriers they are facing. Often, the missing piece is resourcing and on-the-ground partnership. (2) Conducting more research and gathering more data. We know the broad trends – but we need practical information on what things like drivers of distrust, gaps, and education look like in practice. (3) Understandable disclosures. At the end of the day, consumer protection is about ensuring that average consumers can make informed decisions within a set of choices that work for them. Information should be presented in a manner that doesn't require a law degree or technical background to understand.

Getting to the heart of people's needs – and how we ensure that new systems are intentionally built to serve them – is the type of work that is critical as we write the rules for a new, digital economy.

III. Crypto refers broadly to a wide range of use cases and applications. At its core is the idea of an ownership-based, digital economy.

The history of crypto and explanations of the technology underpinning it are well-documented. Rather than repeat this content, I want to highlight what is new about crypto and the vast range of activities covered within the Web3 ecosystem. If I can leave you with one message, it is that the industry is wide-ranging and moving quickly. This makes nuanced policymaking and educational efforts vital.

A. Crypto's Value

First, what's new?

Crypto is a broad term that covers a wide range of use cases and applications. The core shift it represents is from the current model of intermediated interactions to an ownership-based digital economy. For a long time, we have relied on third parties to facilitate trust in many aspects of our lives, such as transactions, identity provision, and governance. In many cases, intermediaries have handsomely profited from intermediation. And, at worst, some

[11] One example of these ideas in action is the Crypto Research and Design Lab (CRADL), which I co-founded. The goal of CRADL is "to put people at the center of crypto." The lab combines three functions – design, crypto, and social impact – that often operate in silos: cradl.org

intermediaries have exacerbated inequalities,[12] sewn distrust,[13] and restricted much-needed access to individuals.[14]

What if we could put some of this power back into the hands of individuals and give consumers a broader set of choices? This is the question at the core of Web3.

Using a unique combination of cryptography, incentive design, and decentralized operations, blockchain technology allows for a decentralized form of record keeping and value exchange. As the recent Executive Order explains, blockchain "refers to distributed ledger technologies where data is shared across a network that creates a digital ledger of verified transactions or information among network participants and the data are typically linked using cryptography to maintain the integrity of the ledger and execute other functions, including transfer of ownership or value."[15]

This innovation has opened a new model for peer-to-peer value exchange in the digital economy. Though the first use case was financial, the innovation found in the Bitcoin white paper[16] has opened a world of possibilities. Conversations about central bank digital currencies (CBDCs),[17] digital art and non-fungible tokens (NFTs),[18] digital identity,[19] and decentralized finance[20] – some of which I will dive into shortly – would not be possible without this fundamental transformation.

Let me also address some criticisms of crypto directly:

Criticism 1: Crypto does not contribute to financial inclusion, but to "predatory inclusion."

I find the narrative of "predatory inclusion" incredibly problematic, as it assumes that individuals are not attuned to their own needs and experiences. In essence, this argument suggests that people are only interested in crypto because they are too uneducated or unaware to know any better. This is a part of a paternalism that we have seen in the United States and throughout the world, which aims to channel individuals to systems that may or may not work for them – and that, in many cases, deliberately excludes them.

[12] https://journals.sagepub.com/doi/pdf/10.1177/00027642211003162
[13] https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef22042en.pdf
[14] https://documents1.worldbank.org/curated/en/552411525105603327/pdf/The-decline-in-access-to-correspondent-banking-services-in-emerging-markets-trends-impacts-and-solutions-lessons-learned-from-eight-country-case-studies.pdf
[15] https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/
[16] https://bitcoin.org/bitcoin.pdf
[17] https://www.bis.org/publ/bppdf/bispap125.htm
[18] https://time.com/5947720/nft-art/
[19] https://podcasts.apple.com/us/podcast/money-reimagined-getting-internet-identity-right-30/id1532770300?i=1000494157635
[20] https://www.weforum.org/whitepapers/decentralized-finance-defi-policy-maker-toolkit

But we know from research that end-users know their circumstances best, and can pinpoint many of the issues and barriers contributing to their circumstances. However, their voices are not effectively brought into policy dialogue, and therefore the picture becomes over-simplified. As such, there are missing accounts of end user needs, use cases, and experiences.[21]

The report on the Economic Well-Being of U.S. Households in 2021 by the U.S. Federal Reserve found that, though financial well-being rose in the U.S., there are parts of the U.S. economy that the financial system underserves.[22] Some one in five Americans said they are "just" getting by or find it "difficult" to get by financially.[23] Even more surprising, 6 percent of adults (nearly 20 million Americans) do not have a bank account. This increases as the numbers break down further: Black (13 percent) and Hispanic (11 percent) adults are more likely not to have a bank account.

The most recent FDIC Survey of Household Use of Banking and Financial Services found the most-cited reasons for not having a bank account were: (1) not having enough money to meet minimum balance requirements and (2) a lack of trust in banks.[24] This paints a fairly clear picture of who is getting left behind: poor households and those who historically have reason to distrust formal institutions.

The data shows that these individuals are turning to crypto. Those with no bank account, no credit card, and no retirement savings were more likely to select "crypto for transactions" than "no crypto" and "crypto for investment."[25] So, their crypto use was not focused on speculation – it was focused on filling a gap in financial services. This is in line with findings from the Atlanta Federal Reserve, which reported that " instead of focusing on helping these people become banked to increase financial inclusion, a more effective approach could be giving cash users access to digital payment vehicles that don't depend on traditional bank accounts."[26]

In my view, it is impossible to have a discussion about money without talking about power and structural forces. A description of the Black Blockchain Summit notes: "online and in person, on the campus of Howard University in Washington, D.C., an estimated 1,500 mostly Black people have gathered to talk about crypto – decentralized digital money backed not by governments but by blockchain technology, a secure means of recording transactions – as a way to make money while disrupting centuries-long patterns of oppression."[27] Leaders from Black and Indigenous communities have highlighted ownership and transparency as a key to building

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[21] https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-lets-give-voice-to-end-users.pdf
[22] https://www.federalreserve.gov/publications/2022-economic-well-being-of-us-households-in-2021-executive-summary.htm
[23] https://www.federalreserve.gov/publications/files/2021-report-economic-well-being-us-households-202205.pdf
[24] https://www.fdic.gov/analysis/household-survey/index.html
[25] https://www.federalreserve.gov/publications/2022-economic-well-being-of-us-households-in-2021-banking-and-credit.htm
[26] https://www.atlantafed.org/-/media/documents/promoting-safer-payments-innovation/publications/2020/09/30/shifting-the-focus-digital-payments-and-the-path-to-financial-inclusion/Shifting-the-Focus-Digital-Payments-and-the-Path-to-Financial-Inclusion.pdf
[27] https://time.com/6106706/bitcoin-black-investors/

generational wealth for these communities.[28] Others have traced the ways in which historical and structural forces may be driving interest in crypto among minorities and social justice communities.[29]

As a recently-released report highlights:

> "It turns out that the popular narrative of the 'crypto bro' is misleading. Purchasers of digital assets actually vary widely in terms of demographics:
> - Average cryptocurrency buyer is under 40 (mean age is 38);
> - 55% do not have a college degree;
> - 44% of crypto traders are not white;
> - 41% of traders are women; and 35% have household incomes of less than $60K annually."[30]

Banks and financial institutions have had decades to serve these populations effectively and they have not. Crypto represents a unique opportunity to build systems from the ground up, using models of inclusive design that are responsive to community needs. Everyone deserves options that work for them. More can be done to ensure equal access for all and this is something that crypto was designed to do. It should be thought of as a tool in the policymaker's toolbox. Importantly, more data is needed here. Crypto is in its early days and while some efforts are underway, additional work is needed to understand these complex dynamics and how crypto can further contribute to financial inclusion.[31]

People are interested in crypto for a reason – it's up to governments to enable choice, while keeping consumers protected via guardrails for the system.

Criticism 2: Crypto has had plenty of time to scale, and it has not.

The first Bitcoin block was mined a little over fourteen years ago on January 3, 2009. As I have outlined, that represented a remarkable first step in innovation for the digital economy. But, it was just that – a first step. Those who point to the "long life" that crypto has had may be missing some critical points of context.

First, using the genesis block of Bitcoin is a bit misleading as a starting point. Bitcoin has served a very important and specific purpose, but that is not the site of a lot of the current innovation in the space. Other chains have been designed from the outset to support a wider range of use cases by design, but there have been more recent developments. For instance, Ethereum – which is where decentralized finance, NFTs, and more got their start – was initially released in

[28] https://www.youtube.com/watch?v=aHAwFcYeCgM
[29] https://www.coindesk.com/layer2/2022/02/16/why-bitcoin-is-a-tool-for-social-justice/
[30] https://www.kansascityfed.org/research/payments-system-research-briefings/the-cryptic-nature-of-black-consumer-cryptocurrency-ownership/
[31] https://medium.com/cradl/crypto-or-not-successful-financial-inclusion-projects-share-these-two-factors-36c2df818d52

July 2015.[32] Even then, the initial release was viewed as just the beginning. Ethereum's creator, Vitalik Buterin, has shared a longer-term outlook for Ethereum, which involves several phases and system upgrades.[33] For example, you may have heard about the successful completion of the first phase, the Merge, which took place in September 2022 after years of work.[34]

Disruptive technological change takes time and patience to mature. The foundations of the internet were laid in the 1960s, the first internet browser was launched in 1990, and the App Store was launched in 2008. From there, we saw the creation of the social media, FinTech, and e-commerce applications that power our lives today. That's more than 50 years of history.

Crypto is just at the beginning of a similar journey. But, whether it reaches its potential depends on decisions we make today. And, just as California has been the hub of innovation for the Internet and its applications – whether in Silicon Valley, Hollywood, or beyond – it can remain the center of its next generation, Web3.

Second, we need to consider the industries that crypto and blockchain technology are disrupting. Crypto is not the same as ChatGPT – there is money and risk involved, there are highly technical and regulated aspects, and the business models look very different. It has taken a long time for financial services to evolve, but once services improved, the uptake has been exponential and is significantly re-shaping the way we interact with money and financial services.

41 percent of Americans say they don't use cash for purchases in a typical week – compared to 24 percent in 2015.[35] About 7,500 bank branches in the U.S. closed between 2017 and 2021.[36] We have been using checks since the 1800s – and have only recently moved into the world of sending rent digitally, paying for coffees on nimble tablet setups, and filing taxes online.[37] It's time to imagine what's next.

Third, we are seeing uptake and interest in crypto. There were over 250 million crypto users in 2022, with growth projected to continue over the next five years.[38] As discussed, we have seen an increase in the number of decentralized finance users and crypto owners, even following the FTX events. This growth is especially pronounced in developing and emerging economies.[39]

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[32] https://www.coindesk.com/markets/2015/07/30/ethereum-launches-long-awaited-decentralized-app-network/
[33] https://twitter.com/VitalikButerin/status/1588669782471368704?s=20
[34] https://ethereum.org/en/upgrades/merge/
[35] https://www.pewresearch.org/fact-tank/2022/10/05/more-americans-are-joining-the-cashless-economy/ft_2022-10-05_cashless-economy_01a/
[36] https://ncrc.org/the-great-consolidation-of-banks-and-acceleration-of-branch-closures-across-america/
[37] https://www.atlantafed.org/-/media/documents/research/publications/economic-review/2008/vol93no4_quinn_roberds.pdf
[38] https://www.statista.com/outlook/dmo/fintech/digital-assets/cryptocurrencies/worldwide#transaction-value
[39] https://blog.chainalysis.com/reports/2022-global-crypto-adoption-index/

I'm sometimes asked what the "breakout application" is for the Web3 ecosystem, and my response is that I think we need to think about scale differently. Instead of building one thing to serve everyone – we've seen the problems with that approach – maybe we should be thinking about building multiple different instances of services that are designed by communities to meet their specific, and even sometimes temporary, needs.

Importantly, research shows there has been an increased focus on hyperlocal efforts and community empowerment. That is, moving from a model that extracts from communities, to a model that invests long-term in communities - on terms that communities themselves deem relevant.[40] The best model builds with, not for, communities.

Criticism 3: Crypto does not have real-world use cases.

As I will describe in greater detail in the next section, this claim is patently false. There are many around the world for whom crypto represents an important option – and in some cases, a lifeline in times of need.

While uptake has been slower in the United States for a variety of reasons, this does not mean that there isn't interest and activity. For example, a recent report from the Crypto Research and Design Lab (CRADL) summarizes the contributions of ten projects across seven use case categories: Identity and Personal Data, Environmental Sustainability Assets, Control of Creative Output, Community Development, Decentralized Infrastructure, Decentralized Finance, and Other Emerging Uses.[41] This demonstrates that crypto goes well beyond financial use cases and is actively looking to serve the needs of end-users. For example, the Shoah Foundation and Starling Labs are using blockchain technology to capture, store, and verify testimonies from survivors and witnesses of 14 genocides and episodes of mass violence.[42] As one of the summary notes: "Ultimately, all 5 petabytes of the foundation's archive, which contains 115,000 hours of video, will be stored in hundreds of places using the Starling Framework's authentication. Stephen Smith, the foundation's executive director, says this is particularly important at a time when disinformation campaigns seek to downplay the greatest horrors of our shared past. 'The competition over history is very real,' he warns."[43]

I'd also like to note that crypto's value is demonstrated by the fact that people are using crypto *despite* its current user experience. To-date, it has been highly technical, somewhat confusing, and not as easy to use as some of the alternatives out there. We have a lot of work to do in terms of making products that are user-friendly. An analysis of popular crypto apps found that "User Experiences are overwhelming, unfocused, and filled with 'landmines'... [and] the next

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[40] https://docs.google.com/presentation/d/1mhPJSTJ1i_rl0QkJyUwoPU6lgG3-pUPan6ViiGaTmvw/edit#slide=id.g150cfb97ded_0_185
[41] https://docs.google.com/presentation/d/1eBndy3YnNYQEJ41pa08SgdlslKvtK2neQdhDB9IIOIo/edit#slide=id.g1beb7788244_2_269
[42] https://www.youtube.com/watch?v=FOPRhf8B6wg
[43] https://www.fastcompany.com/90731729/inside-starling-lab-a-moonshot-project-to-preserve-the-worlds-most-important-information

phase of cryptocurrency experience development will need to continue focusing on the fundamentals: design infrastructure and solutions that don't require people using apps to master technical concepts."[44]

But, people see a real gap being filled, so they have navigated the world of clunky UX and teaching themselves in order to access much-needed and much-wanted options. Indeed, research has found that "the more people understand the value propositions of using cryptocurrencies, the more likely they are to adopt them" – but the industry needs to re-think its onboarding and ideas of crypto literacy to make this a smoother experience.[45] Put differently, in many instances, this is a question of improving the wrapper rather than the underlying technology.

B. Examples of Crypto in Action

Now, I turn to what this all means in practice. While it is important to understand the basics of the technology, I think there needs to be a shift from asking, "crypto: how does it work?" to "crypto: what is it good for?". I highlight some examples of crypto in action, though this list is by no means exhaustive.

Decentralized Finance (DeFi)

Another example is decentralized finance, or DeFi, which provides financial services without the traditional intermediaries. DeFi is perhaps one of crypto's most prominent use cases, given its market size and value transacted. One of the core tenets of DeFi is to be part of building an open monetary system, accessible to everyone globally to provide basic banking service options.

It is well known that there is a burgeoning fringe banking industry in the United States. Through a variety of predatory lending practices, money lenders are able to charge high fees when loaning money to individuals with pressing needs for capital.

The scale of predatory lending is massive. There are more than 23,000 payday lenders in the United States. [46] To put that into perspective, that's almost twice the number of McDonald's restaurants.[47] And that doesn't even include various other lending mechanisms, including rent-to-own services, auto title loans, or pawnshops. People resort to payday loans and fringe banking because of barriers to the traditional financial system. These include the punitive nature

[44] http://bit.ly/uxincryptoreport
[45] http://bit.ly/onboardingtocrypto2022
[46] https://www.cnbc.com/2021/02/16/map-shows-typical-payday-loan-rate-in-each-state.html
[47] *Id.*

of credit scoring in the traditional banking world, minimum balances to keep accounts open, and other barriers to participate in the traditional financial system.

There are innovative products in crypto that offer alternative ways to trustlessly take out loans without agreeing to predatory practices. Though crypto lending is not without risk, the risk factors look very different. More importantly, opting into crypto and DeFi is to opt out of predatory and discriminatory banking practices. Crypto owners are more likely than the average U.S. adult to cash checks or purchase money orders from non-bank providers, pay bills through services like MoneyGram or Western Union, take out payday loans, and take out auto title loans.[48]

Throughout crypto, the total market capitalization of lending protocols is around $4 billion, a fraction of the $8 trillion market capitalization of the world's largest banks. To date, $393 million in dollars have been lent via crypto platforms, with 95 percent of that amount from the past calendar year alone.[49] Notably, compared to the traditional loan options: the average personal loan interest rate in the U.S. is 10 percent (9.38 percent in 2021),[50] while crypto loan rates tend to be significantly lower, with rates ranging from 0.01-3.8 percent in 2021 across four major decentralized lending platforms.[51]

DeFi can also be used beyond traditional finance. For instance, academic literature has suggested that the unique combination of decentralization, interconnected autonomy, openness, and intelligence makes blockchain technology a key enabler of various energy-related use cases.[52] These include peer-to-peer energy transactions, efficiency gains in electric vehicle charging, carbon emissions certification and trading, synergy of the multi-energy system, and more.[53] Once again, these are not theoretical propositions. Initiatives like "regenerative finance" – or ReFi – are working to bring these climate-focused projects to life.[54] In one such example, the Climate Collective mapped more than 250 projects spanning carbon credits, biodiversity, energy markets, waste management, and more.[55]

Crypto Assets in Philanthropy and Aid

[48] https://go.morningconsult.com/rs/850-TAA-511/images/220630_State_of_Cryptocurrency_Report.pdf
[49] https://tokenterminal.com/terminal/markets/lending
[50] https://www.businessinsider.com/personal-finance/average-personal-loan-interest-rates
[51] https://linen.app/interest-rates/borrow/historical?interval=1
[52] https://pdfs.semanticscholar.org/b6b1/5293d4f0a36aa155671023062ea3fc22e64a.pdf?_ga=2.98485663.1428055600.1655216566-2003207876.1655216566
[53] https://www.researchgate.net/publication/330089877_Blockchain-Based_Management_of_Shared_Energy_Assets_Using_a_Smart_Contract_Ecosystem
[54] https://www.coindesk.com/layer2/miningweek/2022/03/27/crypto-carbon-can-blockchain-networks-fix-carbon-offsets/
[55] https://kumu.io/climate-collective/web3-climate-map

Recent events in Ukraine present one such example. Following the start of the war, the crypto community quickly galvanized to raise approximately $100 million in aid to support the Ukrainian government.[56] Working with a local exchange, the Ukrainian government was able to receive and use the cryptocurrency quickly to buy essential items for the war effort.[57] This was supplemented by other efforts, such as crypto-based charity Ukraine DAO, which raised millions of dollars via the sale of NFTs.[58]

Michael Chobanian, a Ukrainian entrepreneur and president of the Blockchain Association of Ukraine, testified before the U.S. Congress in May 2022, describing the essential nature of the crypto relief campaign. He detailed how “the minute the crypto landed on these addresses, the government could use them so immediately. No bureaucracy.” In short, Chobanian emphasized that blockchain and crypto “will be the technology that we’re going to use to rebuild our country.”[59]

Crypto has also provided immediate aid in other high-stake crisis situations. Following the second wave of COVID-19 in India, the crypto community quickly mobilized to raise money for the “India COVID Crypto Relief Fund”.[60] Several key players in the space donated and encouraged others to do the same. This included a donation from Ethereum co-founder Vitalik Buterin, which was worth more than $1 billion at the time of donation.[61] The funds were used for beds, training, and augmenting the country’s public health infrastructure. Importantly, the fund was community driven and helped finance local, grassroots COVID-19 relief efforts.[62]

We have seen in these times of crisis that people want to organize and help, but traditional tools and cumbersome requirements can create friction or even stand in the way of these altruistic efforts.

Crypto Assets in Remittances and International Payments

The best-known use case is crypto assets. Crypto assets have been used in a number of arenas, but show particular promise for international payments and remittances because these transactions have historically been high-cost and heavily intermediated.

Remittances – estimated to reach $630 billion in 2022 – represent a significant opportunity. According to the World Bank’s Remittance Prices Worldwide database, the global average cost

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[56] https://www.coindesk.com/business/2022/03/09/ukraine-has-received-close-to-100-million-in-crypto-donations/
[57] https://donate.thedigital.gov.ua/
[58] https://cointelegraph.com/news/ukraine-dao-raises-over-6m-via-nft-sale-to-aid-ukrainian-citizens
[59] https://www.protocol.com/newsletters/protocol-fintech/crypto-ukraine-senate-hearing
[60] https://cryptorelief.in/
[61] https://www.forbes.com/sites/ninabambysheva/2021/05/12/ethereums-co-founder-vitalik-buterin-donates-over-1-billion-to-india-covid-relief-fund-and-other-charities/?sh=4a804cb36548
[62] *Id.*

of sending $200 was 6.4 percent in the first quarter of 2021, which is more than double the Sustainable Development Goal target of 3 percent by 2030.[63] Estimates show that cross-border payments underpinned by blockchains could save approximately $4 billion a year.[64]

Crypto operators have stepped in to provide these services at a lower cost. For example, in Sub-Saharan Africa, banks are the most expensive agents for sending money, charging 10.2 percent in fees on average. This is closely followed by 7.7 percent from money transfer operators, while post offices charge 5.5 percent. Meanwhile, crypto service providers such as BitPesa can process remittance payments with 1 to 3 percent in fees on average, representing significant cost savings for those who need them most.[65]

MoneyGram, one of the world's largest cross-border transfer services, is partnering with Stellar, a decentralized digital currency protocol, to allow users to send USDC (a stablecoin) to recipients. Recipients can cash out in local currencies via the MoneyGram network.[66] Similarly, Coinbase has a cash-out service across 37,000 convenience stores, supermarkets, and department stores in Mexico. Customers have the choice of cashing out or investing their balance into cryptocurrencies.[67] This is an example of tailoring services to the needs of the customer. In Mexico, 86 percent of all transactions are in cash.[68]

Cryptocurrencies are also increasingly used in countries where access to financial institutions is slow and cumbersome, or where such access has been otherwise significantly depleted because of war, disaster, or terrorism.[69] I have personally worked in this area – including building a product designed to facilitate international donations – and can attest to the complexity involved.[70]

Non-Fungible Tokens (NFTs)

NFTs are yet another use case opening up new opportunities for individuals, especially in arts and culture.

A classic challenge for entertainers, artists, and other content creators is reaching an audience and generating sufficient income. Digital media crystallized this challenge. The Internet radically reduces the costs of copying and distributing digitally based work in comparison to its physical counterparts, making it harder for creators to monetize their work. Blockchain applications can

[63] https://www.worldbank.org/en/news/press-release/2021/11/17/remittance-flows-register-robust-7-3-percent-growth-in-2021
[64] https://www.mckinsey.com/industries/financial-services/our-insights/blockchain-and-retail-banking-making-the-connection
[65] https://forkast.news/cryptocurrencies-remittance-africa-blockchain-bitcoin-money-transfers-fees/
[66] https://ir.moneygram.com/news-releases/news-release-details/moneygram-announces-innovative-partnership-stellar-development
[67] https://www.coindesk.com/business/2022/02/15/coinbase-enables-mexican-users-to-easily-cash-out-of-crypto-sent-to-them/
[68] https://blog.coinbase.com/theres-now-a-cheaper-easier-way-for-your-friends-and-family-in-mexico-to-cash-out-the-crypto-you-2fb095df8324
[69] https://podcasts.apple.com/bz/podcast/a-best-of-2021-holiday-special-haitis-transition/id1543450828?i=1000546010814
[70] https://www.wcoinetwork.org/wcoin-blog/sheila-warren-wagmi-women-of-the-week-fy9kp-sj835-57dyy-32hc9-dwnxm-mkf8m-sm72j

help address this challenge. Specifically, NFTs can help creators manage digital rights to the content they create.

Such NFTs represent unique or quantity-limited digital items – like a work of art or piece of music – linked to blockchain records. Each individual NFT has a unique identifier. Entries on the blockchain record information about ownership of, and associated with, the NFT. Subsequent entries can record transactions, such as transfer or sale. Smart contracts can also be programed to pay creators royalties from the work's secondary market transactions.[71] Artists and their families can sell their digital art and receive royalties for the lifetime of the NFT. This is very different to traditional art where an artist sells for one-time payment.

NFTs expand opportunities for creators and their audiences to connect directly. Traditional artists like poets and fine artists can reach a broader audience by representing poems or pictures in NFTs than they can by relying solely on books, auctions, and dealers for distribution.[72] For example, the poet Ana Maria Caballero makes NFTs from spoken-word performances of her award-winning poetry.[73] Blockchain technology allows her to reach her audience without the need for a third-party seller, which is limited for poetry.[74] Similarly, musicians can sell NFTs incorporating their songs that embed royalty rights in the smart contracts.[75] This allows audiences to support their favorite musicians and feel more connected to the music.[76] DJ Steve Aoki noted that he made more money from one NFT drop than in 10 years of music advances.[77]

We have also seen how NFTs have opened up opportunities for those who may not have had opportunities within traditional arts and entertainment. A 2019 analysis of 18 major art museums found that 85 percent of artists were white and 87 percent were male.[78] As of 2018, art by African American artists made up just 1.2 percent of the global auction market.[79] Additionally, artists are exploring new mediums and venues for displaying their art, as the world is becoming increasingly digital. However, this can raise several challenges, especially for digitally-native artists, including monetization models, intellectual property rights, and attribution.

By contrast, NFTs do not have the same gatekeepers. As such, we have seen cultural movements enabled by this novel technology. For example, there have been emerging collectives of artists of color, LGBTQ+ artists, and neurodivergent artists.[80] Moreover, several artists have said that NFTs have changed their lives, especially those that create in a

[71] https://opensea.io/
[72] https://www.entrepreneur.com/article/422999.
[73] *Id*.
[74] *Id*.
[75] https://time.com/6124814/music-industry-nft/.
[76] *Id*.
[77] https://decrypt.co/92938/steve-aokimore-money-nfts-decade-music
[78] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6426178/
[79] https://www.sothebys.com/en/articles/for-african-american-artists-the-market-remains-woefully-unbalanced
[80] https://www.forbes.com/sites/rebekahbastian/2021/10/24/the-diversity-equity-and-inclusion-potential-of-nfts/?sh=2eff26303179

info@cryptocouncil.org

digitally-native manner.[81] Entire communities – as discussed later in this comment – have burgeoned around NFT projects, bringing together individuals from around the world.

Blockchain technology can also improve the operation of the secondary market for media to the benefit of the creators. For physical media, it may be difficult for a creator to track the resale or transfer of their work, or encourage the exchange of it among fans. Tokenizing their work in the form of NFTs may create a more robust market and may facilitate the creation of communities around the work, all to the benefit of artists and their audiences.[82]

Finally, the programmability of NFTs opens new possibilities. For example, in August 2021, NFT platform Art Blocks raised more than $23.5 million for charity through its platform.[83] A documentary project raised nearly $2 million in two days via the sale of NFTs.[84] Other industries have recognized the potential as well, with explorations and applications across restaurant groups[85], real estate[86], live events[87], and even domain names[88]. This has given rise to the rapid growth and adoption of NFTs in the luxury[89], sports[90], and gaming[91] industries.

Decentralized Autonomous Organizations (DAOs)

Decentralized autonomous organizations (DAOs) are an emerging form of membership organization that relies on these concepts. Generally, membership interests in a DAO are represented by tokens, ownership of which can be tracked on blockchains. DAOs then place decision-making in the hands of members who directly exercise those rights by voting with their tokens. DAOs may also deploy smart contracts to govern their operations and execute the decisions made by their members.[92]

At its core, a DAO is an organizational structure with blockchain technology and tokens underpinning the operations. As such, there have been a diverse set of applications of the DAO

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[81] https://fortune.com/2021/08/06/nft-art-pplpleasr-fortune-cover-ethereum-defihow-crypto-changed-my-life/; https://www.coindesk.com/tv/nft-all-stars/now-ive-found-my-people-how-nfts-changed-fewocious-life/; https://techcrunch.com/2021/03/11/beeples-69-million-nft-sale-marks-a-potentially-transformative-moment-for-the-art-world/

[82] https://www.coindesk.com/podcasts/coindesks-money-reimagined/funding-culture-and-empowering-artists-with-nfts-feat-lethabo-huma-and-cuy-sheffield/

[83] https://cryptobriefing.com/art-blocks-nfts-raise-23-5m-for-charity-august/

[84] https://www.coindesk.com/markets/2021/07/19/ethereum-documentary-featuring-vitalik-buterin-raises-1036-eth/

[85] https://foodfightersuniverse.com/

[86] https://www.entrepreneur.com/science-technology/how-nfts-could-change-real-estate/382816

[87] https://www.coindesk.com/layer2/sportsweek/2022/07/29/why-we-need-nft-ticketing-for-sports-events/; https://www.coindesk.com/business/2021/10/28/nft-ticketing-gets-boost-with-mobile-app-from-yellowheart/; https://www.coindesk.com/business/2022/08/31/ticketmaster-partners-with-blockchain-firm-dapper-labs-to-issue-nfts-for-live-events/

[88] https://ens.domains/

[89] https://www.bloomberg.com/news/articles/2022-08-03/luxury-brands-gucci-t\iffany-co-dive-into-nfts-despite-slump?sref=dCyCdmbQ;

[90] https://www.coindesk.com/learn/sports-nfts-how-to-get-in-the-game/

[91] https://messari.io/report/the-digital-gaming-frontier

[92] https://coopahtroopa.mirror.xyz/_EDyn4cs9tDoOxNGZLfKL7JjLo5rGkkEfRa_a-6VEWw; https://www.governing.com/community/can-we-turn-shareholders-into-public-decision-makers

model and explosive growth in this area. It is estimated that the number of participants in DAOs grew in 2021 from 13,000 to 1.7 million people worldwide.[93]

I will highlight a few examples:

Gitcoin is a DAO that is focused on funding open-source software. A public good, open-source software has been historically under-valued and difficult to create a business model for.[94] Using a DAO model for decision-making about priorities and fundraising, Gitcoin has raised approximately $64.7 million in funding for open-source software to date.[95] Its community includes 312,000 monthly active developers, and there have been almost 3,200 grants funded through its platform.[96]

Komorebi DAO is another model for providing capital within the industry. This DAO was created specifically to fund female and non-binary founders, who are historically under-represented as founders receiving venture capital funding (women received just 2 percent[97] of venture capital funding in 2021). As Komorebi states: "An overarching ethos of crypto is to serve and equalize access to financial and non-financial applications and opportunities across all segments of the global population. We believe this begins with backing founders that represent the diverse group of people we are building for." With the intent of leveling the playing field, the DAO invested almost $500,000 into seven women and nonbinary-led projects over the course of one year.[98]

Yet another type of DAO is one that makes decisions on the future of a given project or protocol. We have seen these DAOs throughout the decentralized finance space. Examples include Aave,[99] Compound,[100] and Uniswap.[101] Many of these DAOs manage billions of dollars in their treasury, using this capital to both make product improvements and invest in public goods for the ecosystem.[102] This is a part of "progressive decentralization," wherein projects teams hand over the reins to a decentralized community over time.[103]

DAOs have also become a tool for organizing around arts and culture – often going hand in hand with my previous example, NFTs. For example, Crypto Coven is a project started by five women that generated more than $20 million in sales.[104] The collection of 9,999 witches is owned by more than 5,000 addresses.[105] Owning an NFT is only one aspect of the project – a

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[93] https://www.weforum.org/agenda/2022/06/are-dao-the-business-structures-of-the-future/
[94] https://digitalpublicgoods.net/blog/why-open-source/
[95] https://gitcoin.co/
[96] *Id*
[97] https://www.bloomberg.com/news/articles/2022-01-11/women-founders-raised-just-2-of-venture-capital-money-last-year?sref=dCyCdmbQ
[98] https://medium.com/komorebi-collective/reflecting-on-a-year-of-komorebi-dao-8addfd6117cf
[99] https://governance.aave.com/
[100] https://compound.finance/governance
[101] https://gov.uniswap.org/
[102] https://coopahtroopa.mirror.xyz/_EDyn4cs9tDoOxNGZLfKL7JjLo5rGkkEfRa_a-6VEWw
[103] https://a16z.com/2020/01/09/progressive-decentralization-crypto-product-management/
[104] https://www.businessinsider.com/crypto-coven-nft-witches-popular-with-women-in-web3-vc-2022-2?r=US&IR=T
[105] https://opensea.io/collection/cryptocoven

community has been built that offers education, in-person meetings, and building stories and games through multimedia. From the start, there was also a focus on diversity and inclusion.[106] For instance, in November 2021, the project partnered with leaders in the space to give away NFTs, with a focus on those who were curious about learning and did not yet own an NFT.[107] Another example is PleasrDAO. Originally convened to support a specific artist (pplpleasr), the DAO has since evolved and is "experimenting with novel concepts in digital and community art ownership." These ideas include fractionalizing art pieces, allowing for partial ownership, and applying innovations within DeFi to distribute value back to the community.[108]

Digital Identity and Privacy

Another area that holds significant promise is reimagining identity systems – especially in a privacy-preserving manner. Current models are structured so that the individual is neither privy to sole ownership of their own identities, nor the proprietary data associated with each individual. As discussed, for many, the promise of Web3 lies in the ability to own and manage your personal information and data. Critically, the difference between decentralized identities and the status quo is that decentralized identification is neither "account based", nor solely provided by a centralized intermediary.

One example is the World Food Programme's Building Blocks initiative. Currently the world's largest implementation of blockchain technology for humanitarian assistance, it aims to facilitate the provision of identity to refugees (as of 2018, 80 percent of the roughly 65 million refugees in the world did not have identification).[109] The program is active in Jordan and Lebanon and supports over 1 million people per month. It is estimated that Building Blocks provided $325 million in cash assistance, processed 15 million transactions, and saved $2.5 million in bank fees.[110] Another example is a company called Aid:Tech. It has been working to establish digital identity infrastructure for aid. Over the company's lifetime, they have disbursed $300 million in funds across 500,000 users.[111]

Other projects have focused on providing the technical underpinnings for identity services. Spruce ID is building a toolkit for decentralized identification, as well as a product that allows individuals to keep a "personal data vault" that allows individuals to store digital credentials, private files, and media to blockchain accounts.[112] Espresso Systems is building privacy-preserving technology to allow parties to verify user credentials without seeing all the details.[113] The technology is designed to be used across a number of use cases, including

106 https://www.fwb.help/wip/crypto-coven-oral-history-web3
107 https://twitter.com/crypto_coven/status/1464786199495725057?s=20&t=01rOR7baXbEYw064tnZ6ZQ
108 https://pleasr.org/#
109 https://www.cnbc.com/2018/05/10/blockchain-refugees-identity-wfp.html
110 https://innovation.wfp.org/project/building-blocks
111 https://www.aid.technology/about
112 https://www.spruceid.com/
113 https://www.espressosys.com/

decentralized finance, credit scoring, and payments[114]. Ceramic Network is a decentralized network for composable data that can be used to store any kind of signed information. The network is particularly well-suited as a universal routing layer for storing decentralized identifiers (DIDs) and their associated metadata, data schemas, policies for usage of web services, access control permissions, and other documents that collectively enable boundless interoperability between an ecosystem of connected wallets, applications, databases, and services.[115]

Digital identification tokens, zero knowledge proofs, and sophisticated forms of encryption present can also support improved approaches to customer identification and verification. This includes the ability of customers to gain more control over their digital identities and, for example, to be able to satisfy successive financial institutions that their identity has already been verified without having to provide sensitive personal information to another financial institution.

Novel mechanisms can be used to create and maintain digital identity records, including (but not limited to) the adoption of digital identity verification techniques that can use a combination of decentralized blockchain based technologies and secure "off-chain" data repositories. Specifically, there are tools under development that can allow digital identity information to be stored securely, and that use digital markers or tokens to enable the persons whose identity information is requested to confirm for a financial institution at onboarding that their identity has been verified, without providing the sensitive PII itself. This provides a mechanism for customers to control the dissemination of information about his or her identity, thus better protecting privacy, while also enabling access to financial services.[116] We discuss this concept in greater detail in our February 2022 Response to FinCEN's Request for Information on the Modernization of U.S. AML/CFT Regulatory Regime.[117]

IV. Crypto represents an opportunity for historically excluded populations, both in the United States and abroad.

Crypto represents a once in a generation opportunity to re-think foundational systems. The financial system was developed and evolved in an analog economy. And, we know it has left many behind in that evolution. Almost 20 percent of Americans have neither access to a bank account nor adequate access to financial services through other means.[118] The rates are higher among adults with lower income, adults with less education, and Black and Hispanic adults. As

[114] https://www.espressosys.com/blog/configurable-asset-privacy-case-studies-payments
[115] https://blog.ceramic.network/introduction-to-the-ceramic-protocol/
[116] https://www.capco.com/-/media/CapcoMedia/Capco-2/PDFs/Decentralized_Identity_Disrupting_KYC.ashx; https://www.forbes.com/sites/forbestechcouncil/2021/12/10/how-decentralized-identity-is-reshaping-privacy-for digital-identities/?sh=247c3e6e3226
[117] https://cryptoforinnovation.org/wp-content/uploads/2022/08/Comment-Letter-FinCEN-Feb-2022.pdf
[118] https://www.federalreserve.gov/publications/2022-economic-well-being-of-us-households-in-2021-banking-and-credit.htm

discussed, these individuals are served by alternative financial services like payday, pawn, or car title lending.[119]

Importantly, financial inclusion is a complicated topic; no technology will be a silver bullet for solving it. Research from the World Economic Forum found a number of factors that could contribute to financial exclusion.[120] For example, globally these may include socio-cultural and demographic barriers might include distrust of the traditional financial system or governments, challenges around digital or financial literacy, physical safety concerns, or others like religious and gender-based barriers or cultural views of money. Infrastructure barriers may include weak or unreliable electricity supply, limited internet connectivity, limited mobile phone access, lack of identity documentation, or lack of physical proximity to services. Financial barriers could be high prices and fees for financial services, lack of digital financial history, or minimum account balance requirements. We've seen many of these reflected in the data cited within this testimony.

We have been overdue for an update to our financial rails that can improve efficiency and reduce cost – meaning better services and choice for the customer. I am especially excited about the potential for greater financial inclusion and access.

A. Domestic Opportunities – California and the United States

We are pleased to see Governor Newsom's administration leading the way in harnessing the potential of blockchain technology. Just last month, the California DMV announced a partnership to explore utilizing blockchain technology and smart contracts for record keeping and car title transfers. The initiative promises to bolster compliance and improve efficiencies across the board.

This was one of many cases highlighted in the California Blockchain Working Group's Roadmap published in July 2020.[121] Other potential application areas included supply chain, utilities and natural resources, and civic participation. I was honored to serve on the Working Group and contribute to that effort.

As discussed in that report, In California – the largest economy in the U.S., the fifth (and almost fourth) largest in the world, and a state with no ethnic majority – the opportunities are immense. I'll focus on three areas:

119 https://www.fdic.gov/analysis/quarterly-banking-profile/fdic-quarterly/2009-vol3-1/fdic140-quarterlyvol3no1-afs-final.pdf
120 https://www3.weforum.org/docs/WEF_Value_Proposition_of_Stablecoins_for_Financial_Inclusion_2021.pdf
121 https://www.govops.ca.gov/wp-content/uploads/sites/11/2020/07/BWG-Final-Report-2020-July1.pdf

First, California has been a hub of experimentation for serving historically un- and under-served groups – especially minorities and small businesses. For example, City3 is an Oakland-based project working on crypto education, community-directed funding, and a cheaper payments network for local businesses. In 2022, the project on-boarded over 1,100 individuals to Web3 wallets, with 60 percent representation from people of color. This hyper-local and community-responsive approach is critical for populations that don't trust existing systems – and uniquely enabled by crypto and decentralized models.

Second, remittances are a key part of California's economic picture. In 2021, California accounted for over one-third of all remittances sent from the U.S. to Mexico. The average cost of sending $200 has hovered around 5 percent, or $10. For the average remittance sender – migrant workers who send around $370 per month in 2-3 installments, these fees add up quickly. Meanwhile, we've seen crypto facilitate remittances at a cost of 1 to 3 percent around the world, representing significant savings for those who need it most.

Third, non-fungible tokens, or NFTs, are an emerging area of importance for the state that's the capital of media and entertainment. We know that NFTs have opened doors for creators, especially underrepresented groups like women and people of color, and digital-forward artists. As James Andrews, a black, California-based creator, put it in a report focused on Black People's Experiences in Web3: "The platforms have notoriously retained all the value, and have made us sharecroppers on the platforms… We got to think about infrastructure in Web3. I'm not just building an NFT project, I'm building an NFT platform." Halim Madi, a Lebanese immigrant and digital poet based in Santa Barbara, has noted NFTs can also address issues of erasure for marginalized communities. When describing one of his recent projects, a collaboration of NFTs inspired by the Declaration of Independence, he said, "Once something has been put on the blockchain, it can't really be tampered with, as long as computers exist."

These are just a few of *many* examples. So, there are significant opportunities to bring in those that have been historically excluded. But doing so comes with its own set of risks. This underscores the need for careful regulation.

California can be a leading example for the country, which faces many of the same challenges on a larger scale.

As many have noted, technologists have made claims of democratization and promoting equity in the past, but at the end of the day, whether a technology lives up to its promise depends on decisions made in the early stages.

To this end, I am heartened by what I have seen in the crypto community. First, we have seen organic movements focused on education and a recognition that historically excluded populations need to be a part of shaping crypto. For example, Black Bitcoin Billionaires grew out of a room on the technology platform, Clubhouse, growing from 2,000 to 130,000 club members in one year.[122] The community's development attracted institutional support from major industry players, like CashApp.[123] Second, we are seeing deliberate attempts from the industry to measure itself and understand how to build more inclusive communities. This includes, for instance, crafting "hyper-local" hackathons and researching how to create better structures for diversity and inclusion in the industry.[124] In fact, there are entire academic communities dedicated to evaluating digital self-governance within the industry.[125] These issues are complicated and require intentional focus – crypto is asking the hard questions.

B. Opportunities Abroad

In many places in the world, especially where people are living under authoritarian regimes or suffer from hyperinflation, crypto can provide a lifeline to store value out of the reach of corrupt or poorly run governments. It has also been a tool in enabling advocates of democracy – particularly in areas where free speech and dissidence are not protected.

There are numerous examples of dissidents using crypto as a tool in speaking out "against powerful and entrenched politicians who largely control trust within their borders."[126] Bitcoin was a critical tool in Nigeria's #EndSARS campaign against police brutality, after the Feminist Coalition's bank account was shut down.[127] Previously, individuals used it as a mechanism for circumventing police corruption.[128] A dynamic of censorship also led the Hong Kong Free Press to rely on Bitcoin donations.[129] Similarly, in Russia, a crackdown on independent media has prompted news organizations to collect and use crypto to keep the lights on – especially as many have had to cease operations around the country.[130] Following a controversial 2020 election in Belarus, protesters faced mass arrests, Internet shutdowns and other backlash. A non-profit in Belarus provided Bitcoin grants to individuals who were affected by repression and financial monitoring.[131] Put simply: having options like crypto matters for democracy and freedom.[132]

Indeed, countries that have had significant crackdowns or bans on crypto have historically not prioritized democratic principles.

122 https://time.com/6106706/bitcoin-black-investors/
123 https://www.blackbitcoinbillionaire.com/
124 https://project-cradl.notion.site/Crypto-Research-and-Design-Lab-50a7127f34ed4c88ad95c7cedf7fbe36
125 https://metagov.org/, https://commonsstack.org/
126 https://www.forbes.com/sites/rogerhuang/2020/10/19/dissidents-are-turning-to-cryptocurrency-as-protests-mount-around-the-world/?sh=3291ffff584c
127 https://www.coindesk.com/tech/2020/10/16/nigerian-banks-shut-them-out-so-these-activists-are-using-bitcoin-to-battle-police-brutality/
128 https://www.coindesk.com/tech/2020/08/26/unconfiscatable-using-bitcoin-to-resist-police-extortion-in-nigeria/
129 https://www.forbes.com/sites/rogerhuang/2020/10/19/dissidents-are-turning-to-cryptocurrency-as-protests-mount-around-the-world/?sh=3291ffff584c
130 https://www.bloomberg.com/news/articles/2022-05-10/putin-s-crackdown-pushes-independent-russian-media-into-crypto?sref=dCyCdmbQ
131 https://www.coindesk.com/policy/2020/09/09/belarus-nonprofit-helps-protestors-with-bitcoin-grants/
132 https://time.com/5486673/bitcoin-venezuela-authoritarian/

Further examples of where crypto has been able to support local populations can also be found in Latin America. In 2020, digital assets provided one of the few means by which the U.S. government was able to deliver assistance to individuals with acute needs in Venezuela.[133] For many, it represents something very fundamental: choice in a time of instability and uncertainty.[134] Venezuelan residents have noted the criticality of crypto assets in the face of hyperinflation.[135]

This has been the case in other regions as well. For example, civilians in Afghanistan, where financial services have become unreliable, have been using crypto in part to hedge against Taliban seizure of assets.[136] Sanzar Kakar is an Afghan American who created an app that helps Afghans transfer crypto. Kakar says the country's "crypto revolution" is a result of the U.S. sanctions against the Taliban and Haqqani group, who are now in power. In its first three months, the app registered more than 2.1 million transactions and had 380,000 active users.[137]

This type of adoption curve is not uncommon in frontier economies. Brazil's largest digital bank reached 1 million users in just one month.[138] One in five individuals in Vietnam have used crypto.[139] A total of 56 percent of adults in Nigeria and 54 percent of adults in Turkey trade crypto at least once a month.[140] A Mastercard survey found that one-half of Latin Americans have used crypto, with more than one-third saying they have made an everyday purchase with a stablecoin.[141] This is compared to a worldwide average of 11 percent saying they have made a purchase with a digital asset. Asia accounts for one-half of all crypto users.[142] In 2021, worldwide adoption grew 880 percent, with emerging markets largely driving this growth.

V. California urgently needs to take a forward-looking approach to policymaking.

It's important to note that while there is much promise for crypto and blockchain technology to revolutionize not only finance, but also so many of our legacy systems, there are also risks. As Governor Newsom's executive order suggested, it is critical that legislation and regulation

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133 https://www.coindesk.com/markets/2020/11/20/us-government-enlists-usdc-for-global-foreign-policy-objective-in-venezuela-circle-ceo/
134 https://medium.com/open-money-initiative/money-on-the-edge-discovering-openings-in-a-closed-system-dad55d0bd7bd
135 https://www.nytimes.com/2019/02/23/opinion/sunday/venezuela-bitcoin-inflation-cryptocurrencies.html
136 https://fortune.com/2022/04/24/afghan-crypto-buyers-keep-money-out-of-taliban-reach-stablecoin-herat/; https://www.aljazeera.com/news/2022/3/21/crypto-provides-fix-for-some-in-crisis-hit-afghanistan
137 https://www.bbc.co.uk/news/world-asia-60715707
138 https://www.coindesk.com/business/2022/07/26/brazils-largest-digital-bank-nubank-reaches-1m-crypto-users-after-just-a-month/
139 https://www.barrons.com/articles/why-crypto-is-taking-root-in-emerging-markets-51653323319
140 https://qz.com/africa/2187447/more-than-half-of-nigerias-adults-are-monthly-active-crypto-traders/
141 https://mastercardcontentexchange.com/news/latin-america/en/newsroom/press-releases/pr-en/2022/june/latin-america-s-crypto-conquest-is-driven-by-consumers-needs/
142 https://www.ft.com/content/1ea829ed-5dde-4f6e-be11-99392bdc0788

enable responsible innovation while mitigating risks for consumers and investors, noting that in some cases, these two groups are the same.[143]

In the past year, we have seen failures of legitimate projects, as well as outright fraud committed against customers transacting in digital assets – resulting in significant losses for consumers and harm to real people. It is critical that we establish regulatory guardrails and consistent consumer protection requirements as this industry continues to grow and develop. And it is critical that these requirements are not performative but actually serve to empower users of these new systems.

Currently, there is no comprehensive federal regulation of digital assets. Instead, companies are subject to a patchwork of state laws, such as the New York Bitlicense, its limited purpose trust charter, and Wyoming's trust charter – as well as regulation by enforcement from federal agencies, which often fails to protect investors because it happens after the fact.

Blanket enforcement harms innovation and investor protection because it does not allow for a thoughtful compliant way for companies to bring to market the innovative products and services that are clearly in demand. The lack of clear, consistent, and transparent regulation continues to bring significant uncertainty to all stakeholders across the ecosystem.

As California undertakes the important work needed to establish a formal licensing framework, policymakers can and should look to lessons learned from other state regimes.

For example, the New York Department of Financial Services has established a bespoke regulatory framework for digital assets. The DFS early on recognized the potential of these assets and the need to regulate them in a way that protects consumers while promoting innovation.

DFS has focused on requirements relating to capital reserves, preventing money laundering, and cybersecurity – goals we applaud – all of which are subject to regular examination, reporting, and supervision. And under the leadership of DFS's current Superintendent, we have seen renewed momentum in improving the agency's ability to regulate in this space.

However, as the industry has continued to grow and evolve over the past seven years in New York and elsewhere, we have encountered some challenges that can help inform California's development of a similar regulatory regime. It's important for state regimes to continue to lead in

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143 https://www.gov.ca.gov/2022/05/04/governor-newsom-signs-blockchain-executive-order-to-spur-responsible-web3-innovation-grow-jobs-and-protect-consumers/

fostering product development that serves consumer needs and promotes safety and security in the marketplace.

A state regime should establish clear and transparent expectations for the timing of application approvals. In New York, it's not uncommon for the timeline from license application to approval to be significant, sometimes taking years. This is both due to the everchanging complexity of the industry and the historical lack of crypto expertise and staffing. Without a clear deadline, many innovators are left unable to operate in New York.

To ensure a consistent consumer protection standard, California should seek to coordinate with other states to combat cases of fraud and market manipulation. Additionally, standards and best practices regarding useful disclosures and the custody of digital assets should be developed.

California should lead when it comes to reciprocity and harmonization of state regimes with similar requirements and standards. This can include, for example, coordination of regulated entity exams with other state regulators, similar to the way state money transmitter license frameworks coordinate with one another for examination purposes. In addition, reciprocity with other states would avoid redundancy and create a streamlined set of standards and requirements.

VI. Conclusion

It is critically important for regulation to keep pace with innovation. I recognize that digital assets are built on a technological underpinning distinct from that of the traditional financial markets, and, accordingly, it is essential that any regulatory framework should properly account for such distinctions. There should be a clear and reasonable timeframe for companies to transition into any new state framework. As part of all this, I would strongly encourage California to continue to seek input from market participants. The Crypto Council looks forward to working with you over the course of this session to advance these important issues.

Thank you again for the opportunity to discuss these important topics and your support for the regulatory certainty that will be established by this legislation. I look forward to answering your questions.

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SACRAMENTO, CA 94249-0115

California Legislature

Joint Oversight Hearing
Assembly Committee on Banking and Finance
Senate Committee on Banking and Financial Institutions

The Failure of Silicon Valley Bank: Where Regulation and Supervision Fell Short
Wednesday, May 10, 2023
2:00 PM, 1021 O Street, Room 1100

Agenda

1. Welcome and Opening Remarks
   a. **Assemblymember Tim Grayson**, Chair, Assembly Committee on Banking and Finance
   b. **Senator Monique Limón**, Chair, Senate Committee on Banking and Financial Institutions
2. Review of the Department of Financial Protection and Innovation's (DFPI) Oversight and Regulation of Silicon Valley Bank
   a. **Clothilde "Cloey" V. Hewlett**, Commissioner, DFPI
   b. **Avy Mallik**, General Counsel, DFPI
   c. **Jeanette Quick**, Deputy Commissioner of Investor Protection, DFPI
3. Public Comment

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Joint Oversight Hearing
Assembly Committee on Banking and Finance
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The Failure of Silicon Valley Bank: Where Regulation and Supervision Fell Short

Wednesday, May 10, 2023
2:00 PM, 1021 O Street, Room 1100

Purpose of the hearing

The Assembly Committee on Banking and Finance and the Senate Committee on Banking and Financial Institutions ("the Committees") will convene an oversight hearing on May 10, 2023, to evaluate the state's supervision of Silicon Valley Bank (SVB), which failed in March 2023 as a result of a bank run spurred by concerns about the bank's financial health. The failure of SVB raises important questions about the adequacy of banking regulations and the effectiveness of banking supervision.

On May 8, 2023, the Department of Financial Protection and Innovation (DFPI) released a comprehensive review of its supervision of SVB. DFPI leadership will provide committee members an overview of this report, including the department's recommendations to improve state supervision of California-chartered financial institutions.

Importantly, SVB is not the only California bank that has struggled in the current economic environment. This year has also seen the winding down of Silvergate Bank and the failure of First Republic. While these events will not be the primary focus of this hearing, these cases highlight the need to review federal and state banking oversight.

Today, committee members will hear from:

- Clothilde "Cloey" V. Hewlett, Commissioner, DFPI,
- Avy Mallik, General Counsel, DFPI, and
- Jeanette Quick, Deputy Commissioner of Investor Protection, DFPI.

Summary of SVB's collapse

The business of banking is inherently risky, due in no small part to banks providing the beneficial economic function of maturity transformation – that is, banks gather short-term deposits and make long-term loans. This activity introduces the risk that depositors may request their funds back in a timeframe that does not align with the cash flows generated by the loans. If many depositors request their funds back in a relatively short time period, a bank may be forced to seek out costlier funding sources or to sell assets, such as loans or other investments. In some cases, a bank may experience such significant demand from depositors to withdraw their funds that the bank is unable to meet all requests, resulting in the bank being shut down by state or federal regulators. This is the outcome that befell SVB in March 2023.

For California, SVB was not just any bank. SVB was widely perceived as a vital component of California's tech economy, offering tailored products and services to venture capitalists (VCs), technology firms, entrepreneurs and start-ups. SVB marketed itself as "the financial partner of the innovation economy," and one venture capitalist described it as "the most important capital provider to tech startups and the biggest supporter of the community."[1]

SVB's reliance on start-ups and VC customers meant that the bank's fortunes tracked closely with those of the tech industry. Until a few months ago, this close relationship worked well: between 2019 and 2022, amid a booming tech economy, SVB's assets tripled, growing from around $60 billion to $209 billion, becoming the 16th largest bank in the nation. This growth in assets was driven primarily by large increases in deposits, as SVB's customers raised large amounts of capital through IPOs and new funding rounds. Notably, many of these deposit accounts exceeded the $250,000 FDIC insurance limit, meaning the depositors were exposed to losses in the event that SVB failed. SVB used that surge in deposits to invest in medium-and long-term securities like government bonds, which are typically considered safe.

However, SVB's weaknesses began to emerge after the Federal Reserve raised interest rates to combat persistent inflation. Specifically, the Federal Reserve warned SVB leadership about the bank's "interest rate risk," which is a type of risk stemming from a changing interest rate environment.[2] In SVB's case, the market value of its long-term securities investments was declining, which means the bank would sell these investments at a loss if they were compelled to sell before their maturity date. This interest rate risk, in combination with SVB's substantial amount of uninsured deposits (representing 88% of the bank's deposits at the end of 2022) and a struggling tech sector, appear to have helped create the conditions for SVB's quick collapse in March 2023.

Researchers, experts, and federal policymakers have developed detailed accounting of the many factors that worked together to create the conditions for SVB's failure. For additional

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[1] Aimee Picchi, "Silicon Valley Bank shut down by regulators. Here's what to know." CBS News (March 10, 2023), available at: https://www.cbsnews.com/news/silicon-valley-bank-sivb-stock-fdic-cbs-explains/

[2] "Interest rate risk," also called "duration risk," is the risk that a change in interest rates will negatively affect the value of an asset. For example, if someone buys a bond when interest rates are low, then the market value of that bond will decline if rates for newly issued bonds go up, because the newly issued bonds generate higher cash flows due to their higher interest rates. If the low interest rate bond is held until maturity, then the bond holder will see the full return. However, if the bond holder must sell a low interest rate bond on the secondary market before the bond's maturity date, then the bond holder will take a loss because the low interest rate bond is valued lower than more lucrative newly issued bonds with higher interest rates.

information about what caused the SVB collapse, committee members may wish to refer to the Assembly Banking and Finance Committee's April 10^{th} informational hearing, titled "The Collapse of Silicon Valley Bank: What Happened and What it Means for Banking Regulation." Materials can be found on the committee website: https://abnk.assembly.ca.gov/content/collapse-silicon-valley-bank-what-happened-and-what-it-means-banking-regulation.

Timeline of major events in the SVB collapse

1. On Wednesday March 8, SVB announced a sale of $21 billion in securities at a loss of $1.8 billion to raise liquidity, a result of SVB's interest rate risk. The company also announced it was conducting a capital raise. These announcements raised concerns among investors and customers that the bank could be in financial trouble. In a letter to investors, the SVB president wrote that "While VC (venture capital) deployment has tracked our expectations, client cash burn has remained elevated and increased further in February, resulting in lower deposits than forecasted."[3]

2. On Thursday, March 9, SVB experienced a bank run as a growing number of the bank's customers, including start-ups and VCs, began to pull their money out of the bank. SVB customers used social media and their personal networks to spread the word about pulling funds out of the bank. In total, approximately $42 billion was withdrawn from the bank in a single day, leaving SVB with a negative cash balance of around $958 million.[4] As DFPI described in its order taking possession of the bank, "the precipitous deposit withdrawal has caused [SVB] to be incapable of paying its obligations as they come due."

3. On Friday, March 10, DFPI took control of SVB due to its inadequate liquidity and appointed the Federal Deposit Insurance Corporation (FDIC) as a receiver of SVB. The FDIC announced that the insured portion of deposits (amounts less than $250,000) would be available to customers by Monday, March 13, and that the uninsured portion of deposits would be paid as an advanced dividend at some later date. The FDIC also began looking for a buyer of SVB or its parts, which would then determine any additional funds that could be allocated back to uninsured depositors.

4. On Sunday, March 12, purchaser bids for SVB were due to the FDIC. According to testimony from the FDIC's Martin Gruenberg, the FDIC received only one valid offer on the insured deposits and some of SVB's assets. Gruenberg states that the costs associated with this offer

[3] Krystal Hu et al, "Silicon Valley Bank Scrambles to Reassure Clients After 60% Stock Wipe-Out." Reuters, March 10, 2023, available at: https://www.reuters.com/business/finance/silicon-valley-bank-sell-stock-cope-with-cash-burn-2023-03-09/

[4] DFPI's order is available at: https://dfpi.ca.gov/wp-content/uploads/sites/337/2023/03/DFPI-Orders-Silicon-Valley-Bank-03102023.pdf?emrc=bedc09

would have "resulted in recoveries significantly below the estimated recoveries in liquidation."[5]

As concerns arose that risk of collapse could spread to other banks and reports that customers had begun to withdraw funds from other banks with large amounts of uninsured deposits, the FDIC board recommended that the Secretary of the Treasury make a "systemic risk determination" with regard to SVB. This determination allowed the FDIC to extend insurance to all of SVB's deposits, even those with deposits greater than the $250,000 insured threshold. Gruenberg notes this guarantee helped small and mid-size businesses as well as customers with very large account balances. The ten largest deposit accounts held $13.3 billion in total.

5. On Sunday, March 26, the FDIC announced that it had sold most of SVB's assets to First Citizens Bank. According to the FDIC, the net costs of the SVB failure to the Deposit Insurance Fund to insure all deposits would be roughly $20 billion.

Federal and state roles in the regulation and supervision of banks

Banks facilitate a large majority of all payments in the economy, and a disorderly bank failure can cause far-reaching effects on society, such as causing employers to miss payrolls or consumers being unable to access their funds. In order to reduce the risk of bank failures, banking is among the most regulated industries in the world. Banks are subject to statutory laws enacted by legislators and rules promulgated by bank regulators that are intended to ensure the safety and soundness of individual banks and the banking system as a whole. But the diversity and complexity of risk in banking requires a more responsive and continuous oversight relationship between government and banks than is possible with statutory and regulatory law alone. This oversight relationship is referred to as "supervision" and consists of government bodies that constantly monitor, inspect, and examine banks for compliance with laws.

The specific ways in which a bank is regulated and supervised depends partially on its charter, which acts as a type of license authorizing the bank to operate. The United States has a dual-banking system (also called a dual-charter system) by which both federal and state regulators share the supervision of banks and credit unions. Under the dual-banking system, a bank can choose to receive a federal charter through the Office of the Comptroller of the Currency (OCC) or a state charter through the state chartering authority.

DFPI is California's state chartering authority and supervises nearly 100 state-chartered banks.[6] A state-chartered bank is also regulated by either the Federal Reserve or the FDIC, depending on whether the bank joins the Federal Reserve System. Importantly, banks, whether they are state-

[5] Remarks by Chairman Martin J. Gruenberg on Recent Bank Failures and the Federal Regulatory Response before the Committee on Banking, Housing, and Urban Affairs, United States Senate, March 27, 2023, available at: https://www.fdic.gov/news/speeches/2023/spmar2723.html
[6] For a full list of state-chartered banks in California, see: https://dfpi.ca.gov/commercial-banks/directory-of-state-charted-com-banks/

or federally-chartered, may also be subject to a range of rules and policies aimed at ensuring the stability of the whole financial system.

In practice, a large majority of bank regulation and supervision is dictated at the federal level. Adding the involvement of state regulators may seem like a complicated structure that adds yet another cook to a kitchen already filled with assorted federal agencies. However, the availability of a state charter is believed to produce real and tangible benefits for both the industry and consumers by making the federal and state governments "compete" for banks. According to the Conference on State Banking Supervisors (CSBS), state regulators offer unique value to banking supervision because "the state regulatory system provides banks and nonbanks the opportunity to serve the specific needs of local communities under the supervision and guidance of a supervisor directly connected to those communities."[7] CSBS notes that many products that are now commonplace, such as home equity loans and the checking account, originated in state-chartered banks and later became more widely available in the broader dual-banking system.

DFPI also cites a number of advantages to banks that obtain a California charter. Among the benefits are lower fees and assessments, minimal intrusion of examiners into institutions that are well-managed and well-capitalized, and more direct and timelier contact with the regulator.[8] DFPI states that "the combination of access, low fees, favorable state laws, and expertise and experience of the Department's staff, make the state charter the charter of choice for California financial institutions."

What is involved in bank supervision?

As a state-chartered bank that was a member of the Federal Reserve System, SVB was jointly supervised by DFPI and the Federal Reserve. For these types of banks, DFPI and the Federal Reserve coordinate their examinations of the bank and may alternate examinations of small community banks. The two supervising teams may focus on different aspects of the bank's operations.

According to the Federal Reserve, the primary objectives of an examination are to provide an objective evaluation of a bank's soundness, determine the risk involved in the bank's activities, evaluate the bank's compliance with laws and regulations, and identify areas where "corrective action" is required to strengthen the bank and improve the quality of its performance.[9]

Banking supervisors have a number of options to correct a bank's behavior or practices. For example, if the Federal Reserve determines that a bank is unsafe or it is not following the law, it

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[7] See CSBS primer on financial services regulation for further discussion of state charters: https://www.csbs.org/state-financial-regulation-101

[8] "Advantages of a State Charter," DFPI (Updated September 2019), available at: https://dfpi.ca.gov/advantages-of-state-charter/

[9] See Chapter 5 of the Federal Reserve's "About the Fed" manual for an in-depth discussion of the Federal Reserve's many supervisory duties for both national and state member and nonmember banks: https://www.federalreserve.gov/aboutthefed/files/pf_5.pdf

can take a range of informal or formal actions to ensure that the bank changes course. Informal supervisory actions typically are used to address less serious issues, while formal supervisory actions are actions to correct behavior, and can be enforced in court. Those formal actions can include orders directing the bank to cease and desist from engaging in certain conduct or directing the bank to take actions to return to safer business practices.

A key area of exploration for committee members is how supervision is shared between DFPI and the federal regulator for state-chartered banks. During Assembly Banking Committee's April 10th informational hearing, expert witnesses described a situation where typically the federal regulator – either the Federal Reserve or the FDIC – serves as the lead and the state regulator serves as "second chair." A main reason for this is practical: federal regulators are typically better staffed and have significant more resources than state regulators, therefore taking the lead role in supervision, especially for large and complex financial institutions.

Federal review of SVB supervision and related policy matters

The SVB failure and the federal government's emergency response has led to significant postmortem evaluations of what went wrong and whether regulators could have prevented the bank's failure. Below is a brief summary of each report, followed by a list of policy issues the Committees may wish to consider further as part of its evaluation of DFPI's role in overseeing state-chartered banks.

<u>Federal Reserve Board</u>

On April 28, 2023, the Federal Reserve Board (FRB) released a comprehensive review of the Federal Reserve's supervision of SVB. The FRB report does not discuss in depth DFPI's role in supervising SVB along with FRB, nor does the report signal any concerns about the dual-banking system. Instead, this report treats the Federal Reserve as the primary supervisor of SVB, a recurring theme in many of the SVB-related postmortems. The 118-page report includes four high-level takeaways:

1. SVB's board of directors and management failed to manage their risks.

2. Supervisors did not fully appreciate the extent of SVB's vulnerabilities.

3. When supervisors identified vulnerabilities, they did not take sufficient steps to ensure that SVB fixed those problems quickly.

4. The FRB's tailoring approach in response to federal law and a shift in the stance of supervisory policy impeded effective supervision by reducing standards, increasing complexity, and promoting a less assertive supervisory approach.

The FRB report provides a detailed accounting of SVB's many vulnerabilities, most of which were identified, but underestimated, by federal supervisors. Prior to its failure, SVB had 31 open supervisory findings, roughly three times the number at similar banks. These findings were related to risk management, liquidity, interest rate risk management, and technology. The FRB report makes it clear that SVB's leadership failed in its duties to manage the bank's growth responsibly, but that also the Federal Reserve's oversight "proved inadequate for the well-documented and significant vulnerabilities and managerial weaknesses at SVBFG."

FRB's review also raise a number of important policy issues relevant to DFPI's supervision of state-chartered banks, including the efficacy of supervisory tools, the role of executive compensation, and the culture within regulatory agencies. Those issues, and related questions the Committees may wish to ask, are provided later in this background report.

FDIC

The federal government's response to the SVB failure have led to additional discussion about the role of deposit insurance in preventing bank runs and creating financial stability. As noted above, an unusually high percentage of SVB's deposits were uninsured, meaning they were above the $250,000 insured level. This concentration of uninsured deposits helped spark customer panic, and federal regulators ended up making all depositors whole as part of its emergency response because of the impact on small businesses and the fear of wider contagion in the banking system.

On May 1, 2023, the FDIC released a report examining the role deposit insurance plays in preventing bank runs and instilling confidence in the banking system.[10] This report examined three possible policy options:

1. "Limited coverage" that provides insurance of all depositors up to a certain amount, either $250,000 or a higher amount.

2. "Unlimited coverage" that extends unlimited insurance coverage to all depositors.

3. "Targeted coverage" that offers different insurance limits across account types, where business accounts receive much higher coverage than other accounts.

Though deposit insurance is outside the scope of California policymaking, any changes to deposit insurance would have a significant impact on any state-chartered bank. The FDIC cautions against "unlimited coverage" because it could promote bank risk-taking and impose significant costs on banks, which pay assessments to support the insurance fund. In its conclusion, the FDIC suggests a "targeted coverage" would best meet the objective of cost-effectively providing for financial stability and customer protection.

DFPI review of SVB supervision and related policy matters

On May 8, 2023, DFPI released a comprehensive review of SVB's failure and DFPI's supervision. The stated purpose of the report is to "provide information for policymakers and stakeholders

[10] https://www.fdic.gov/analysis/options-deposit-insurance-reforms/

that may help to prevent future bank failures." DFPI's report notes that while the Federal Reserve took a lead role in supervising SVB, the department can do more to prevent a similar situation from occurring again.

DFPI's report does not contain any suggested statutory changes or recommendations to significantly modify its supervisory authority. Like the federal reports described above, DFPI's review points to shortcomings in the speed, focus, and priorities of supervisors, and the report recommends actions the department can take to better calibrate its existing supervisory authority to address the current risks in the banking system.

The DFPI review includes four primary findings and suggested DFPI response:

1. **SVB was slow to remediate regulator-identified deficiencies, and regulators did not take adequate steps to ensure SVB resolved problems as fast as possible.** To help address this shortcoming, DFPI plans to coordinate with federal regulators to develop stronger and more effective systems to remediate deficiencies promptly.

2. **Digital banking technology and social media accelerated the volume and speed of the run on SVB and contributed to its ultimate collapse.** In response to this new dynamic, DFPI plans to require banks to consider how to quantify and best manage existing and emerging risks posed by technology-enabled activities such as social media and real-time deposit withdrawals.

3. **SVB's unusually rapid growth was not sufficiently accounted for in risk assessments**. DFPI **states that it** will review its internal staffing processes to ensure that additional staff members are assigned in a timely manner, commensurate with accelerated growth or increased risk profile for an institution, for banks with assets of more than $50 billion. DFPI also notes that it will continue to develop large bank supervisory plans with federal regulators, with an increased focus on timelines for corrective actions and the allocation of examiners.

4. **SVB's high level of uninsured deposits contributed to the run on SVB**. In response to the risks associated with uninsured deposits, DFPI states that it will focus efforts on banks' uninspired deposit levels and subject banks with over $50 billion in total assets to heightened examination requirements regarding uninsured deposits.

Like the Federal Reserve report, the DFPI report reviews the history of supervisory actions taken against SVB. These actions took the form of meetings and supervisory letters that included Matters Requiring Attention (MRA) and Matters Requiring Immediate Attention (MRIAs), warnings that require a written response from management. Five of these letters were independent issued by the Federal Reserve and related to matters exclusively covered by the Federal Reserve, such as liquidity positions and liquidity risk management, and 11 were jointly issued with DFPI, and they covered matters related to risk management, liquidity risk management, and interest rate risk.

DFPI's report also provides a comprehensive look into how it coordinates with federal regulators in overseeing large and complex financial institutions. The collapse of both SVB and First Republic – two of California's largest state-chartered banks – raises important questions about whether state supervisors have the capacity to adequately assist in the supervision of these types of institutions. The department's review provides some insights into how this supervision played out in practice with SVB:

1. **The Federal Reserve took the lead examiner role when SVB joined the Large and Foreign Banking Organization (LFBO) portfolio.** When a bank grows above the $100 billion threshold, it joins the LFBO grouping of financial institutions and receives increased federal scrutiny and oversight from the Federal Reserve Board of Governors. DFPI also notes that due to its size and complexity, SVB was examined on a continuous basis and that the two regulators "divided their responsibilities in such a way that oversight activities were led primarily by FRBSF, with DFPI monitoring supervisory activities and collaborating with the FRBSF on discrete exams."

2. **DFPI did not participate in every exam.** In the 2022 exam cycle, DFPI collaborated with the Federal Reserve on six of the 10 targeted exams. For the four that DFPI did not participate in, the subjects and information typically fall outside of DFPI's jurisdiction because they involve comparing a bank with the practices of banks across the country.

3. **The bulk of dedicated examiners were from the Federal Reserve.** While DFPI ramped up supervisory hours for SVB in the 2022 supervisory cycle, the bulk of dedicated supervisory staff were Federal Reserve examiners. The Federal Reserve had a team dedicated to SVB consisting of 15 examiners, each with subject matter expertise examining large banks with more than $100 billion of assets, while the DFPI team relied on two examiners dedicated to SVB with support from other examiners who focused on particular risk areas as needed and rotated to other non-SVB assignments throughout the year. Federal Reserve staff spent approximately 25,000 hours on scheduled supervisory activities on SVB in 2022, compared to just over 3,000 hours spent by DFPI.

Questions from the Committees

The above reports highlight a host of policy issues relevant to the Committees' consideration of DFPI's supervision. Committees may wish to consider the following issues or ask the following questions:

<u>The role of federal vs. state bank supervisors</u>

1. Compared to the supervision policies of the Federal Reserve or the FDIC, does the DFPI request any unique information or ask any unique questions of banks pursuant to the department's supervisory activities?

2. Are there any federal laws that prevent California from applying stricter safety and soundness requirements on state banks than those required by existing federal law?

3. What are the policy benefits for Californians related to the chartering and supervision by DFPI of state banks with greater than $50 billion in assets, compared to those banks undertaking similar business activities under a national charter?

4. The FRB report states that "the supervisory approach at SVBFG was too deliberative and focused on the continued accumulation of supporting evidence in a consensus-driven environment."

    a. When DFPI disagrees with the supervisory decisions, actions, or inactions of partnering federal examiners, does the department have the authority and ability to unilaterally make its own decisions or take actions intended to protect the safety and soundness of the institution?

    b. In the case of SVB, which entity had the strongest voice in establishing the consensus view – DFPI, the Federal Reserve Bank of San Francisco, or the Federal Reserve Board?

<u>DFPI supervision activities</u>

5. Does the asset size of a bank affect how the DFPI deploys supervisory resources?

    a. Are there any differences in the knowledge, skills, and abilities of examiners assigned to small community banks compared to examiners assigned to larger regional banks?

    b. Does the DFPI have processes in place to deal with "cliff effects" as a bank approaches any asset size threshold that would change the nature of supervisory activities?

6. Please describe the level of experience among DFPI examiners in dealing with the governance and risk management practices of sizeable and complex institutions like SVB.

7. Please describe the ability for DFPI to attract and retain qualified examiners. Does DFPI have difficulty hiring for these positions?

8. SVB's assets grew 271 percent from year-end 2018 to year-end 2021, with a large majority of that growth unrelated to merger and acquisition activity. The FRB report cites this high rate of growth as a contributing factor in SVB's failure.

   a. In the past 20 years, has the DFPI supervised any state bank that has grown at a similar rate over a similar period of time (excluding any examples where such asset growth was significantly due to M&A activity)?

   b. Does the DFPI monitor the growth rates of state banks and respond with enhanced supervisory activities for banks that significantly exceed industry-standard rates of growth? If so, what are those enhanced supervisory activities?

9. The FRB report finds that supervisors were dissuaded from taking certain supervisory actions, such as ratings downgrades, because of SVB's short-term financial performance.

   a. Does the DFPI have any policies or procedures in place to mitigate the risk of supervisors failing to take stronger supervisory actions simply due to the bank being profitable in the short-term?

   b. Would it be practically feasible for certain examiners, such as the examiners assigned to evaluate risk management and controls, to be shielded from knowing the financial performance of the bank, so that the examiner's views are not distorted by short-term financial performance when establishing a rating?

<u>Potential policy responses to SVB failure</u>

10. According to the FRB report, a SVB director told supervisors that "controls always lag growth." The report includes this quote in the context of discussing SVB's failure to build a governance and risk management framework that kept up with its rapid growth and business model risks.

    a. Based on the department's experience, do controls always (or often) lag growth?

    b. If yes, what policy responses – whether through enacting new statutes, promulgating regulations, or changing supervisory approaches – would mitigate the negative consequences of a bank growing too fast to adequately manage the evolving risks of the institution?

11. The FRB report cites the structure of executive compensation as a factor that contributed to the bank's failure, specifically that management compensation was based on short-term earnings without adjustments for risk.

    a. Does the department review the structure of executive compensation when examining state banks? If so, what are the supervisory guidelines related to executive compensation?

    b. If the Legislature desired to strengthen executive compensation requirements for state banks, does the department have any guiding principles in crafting a policy that would better align the interests of shareholders, directors, bank management, and the general public, compared to the compensation structures that were in place at SVB?

12. The FRB report finds that bank supervisors were often aware of deficiencies in SVB's controls, risk management, and liquidity position, yet those concerns did not translate to timely and forceful demands from supervisors for SVB management to remedy those deficiencies.

    a. Which, if any, existing laws or policies prevented DFPI examiners from requiring SVB management to remedy deficiencies identified in supervisory activities?

    b. If the Legislature desired DFPI examiners to take timelier and forceful action in requiring management to make material changes at a troubled bank, would the department need any additional authority or resources to carry out that charge?

13. The FRB report finds that SVB directors and management "failed to establish a risk-management and control infrastructure suitable for the size and complexity of SVBFG when it was a $50 billion firm, let alone when it grew to be a $200 billion firm."

    a. If such governance failures were known by supervisors, should SVB have been allowed to continue growing?

    b. Would the DFPI need additional authority or clarity in the law to institute a hard cap on a bank's balance sheet if the department found the bank lacked sufficient controls and risk management suitable for the existing size of the bank?

May 8, 2023

Review of DFPI's Oversight and Regulation of Silicon Valley Bank

DFPI DEPARTMENT OF FINANCIAL PROTECTION & INNOVATION

Updated May 9, 2023, 12:30 p.m

A. Page 2: URL for supervisory materials updated.

B. Pages 4, 18, and 41: Non-substantive typographical changes.

C. Page 44: Indicated $1.9 billion unrealized losses figure is an estimated figure.

D. Page 63: Glossary updated.

Table of Contents

Executive Summary

A. The collapse of Silicon Valley Bank

On March 10, 2023, the Department of Financial Protection and Innovation (DFPI or Department) took possession of Silicon Valley Bank (SVB), a California state-chartered regional bank based in Santa Clara, and appointed the Federal Deposit Insurance Corporation (FDIC) as receiver.

SVB became insolvent after an unprecedented run on SVB's deposits. Within the span of eight hours on March 9, 2023, SVB received deposit withdrawal requests of approximately $42 billion, representing nearly 25 percent of SVB's approximately $166 billion in total deposits. While many internal factors made SVB susceptible to a bank run, both social media and digital banking technology accelerated the volume and speed of the deposit outflows.

The bank run began after SVB's holding company announced SVB had liquidated a bond portfolio at a loss of $1.8 billion and was seeking to raise $2.25 billion in capital. SVB had established itself as a primary provider of banking products and services to the technology industry, including venture-backed tech startups, and had accumulated a high percentage of uninsured deposits concentrated in the tech industry. SVB had grown at a rapid pace since 2020 without sufficient risk management. Recent rising interest rates led to SVB's startup deposits decreasing and SVB's investments losing value, both of which contributed to SVB's liquidity challenges.

The DFPI and SVB's primary federal regulator, the Federal Reserve Bank of San Francisco (FRBSF), had divided their respective oversight and supervisory activities over SVB in such a way that the FRBSF had assumed a lead role for many supervisory activities. However, most supervisory letters to the bank were issued jointly. In the years leading up to SVB's failure, the DFPI and the FRBSF identified deficiencies in SVB's bank management practices. Specifically, the FRBSF and the DFPI had initiated supervisory actions related to SVB's risk management, liquidity, and interest rate risk simulations. SVB had undertaken corresponding remediation efforts, but the regulators did not take adequate measures to ensure SVB did so with enough speed.

B. Report overview

The DFPI conducted a comprehensive review of the circumstances leading up to the liquidation of SVB. This report provides background on the regulatory framework that governs banks in California and the United States, summarizes the DFPI's supervision of SVB, reviews the circumstances that led to the failure of SVB, and details key findings and next steps for the DFPI.

This report, in conjunction with the release of the Federal Reserve's April 28, 2023 report on SVB,[1] seeks to provide information for policymakers and stakeholders that may help to prevent future bank failures. In the interest of transparency, this report includes confidential supervisory information (CSI) about SVB, including summaries of examination reports, supervisory letters, and ratings downgrades, so that policymakers and the public are fully informed about the circumstances leading to the demise of SVB.[2] This information is available at https://dfpi.ca.gov/review-of-dfpi-oversight-and-regulation-of-silicon-valley-bank/.

C. Key findings and next steps for DFPI

The DFPI will leverage the events surrounding SVB's failure to better understand how the DFPI can protect the public from future economic destabilization. Below is a summary of the DFPI's key findings regarding the events surrounding SVB's collapse and of next steps for the DFPI going forward.

Finding 1: Speed of remediation

SVB was slow to remediate regulator-identified deficiencies, and regulators did not take adequate steps to ensure SVB resolved problems as fast as possible.

Next steps:

- DFPI will coordinate with federal regulators to develop stronger and more effective systems to remediate deficiencies promptly.

[1] *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, Board of Governors of the Federal Reserve System (Apr. 28, 2023).
[2] CSI is information that is typically kept confidential in the bank regulatory process to protect financial markets. In this case, the Federal Reserve Board released CSI information related to the examination of SVB in conjunction with its April 28, 2023 report on SVB.

DFPI will add additional levels of supervisory review to elevate issues identified in an examination and expedite action as appropriate.

Finding 2: Rapid growth and DFPI's role in supervision

SVB's unusually rapid growth was not sufficiently accounted for in risk assessments.

Next steps:

- DFPI will review its internal staffing processes to ensure that additional staff members are assigned in a timely manner, commensurate with accelerated growth or increased risk profile for an institution, for banks with assets of more than $50 billion.
- DFPI will continue to develop large bank supervisory plans in coordination with federal regulators for all banks with assets of more than $10 billion, with increased focus on timelines for corrective actions and allocating banking staff examination hours based on the risks identified in these supervisory plans.

Finding 3: Uninsured deposits

SVB's high level of uninsured deposits contributed to the run on SVB.

Next steps:

- DFPI will increase its focus on banks' uninsured deposit levels, in addition to continuing to monitor key indicators such as banks' concentration of uninsured deposits by industry.
- Banks with over $50 billion in total assets will be subject to heightened examination requirements regarding uninsured deposits.

Finding 4: Digital technology and social media

Digital banking technology and social media accelerated the volume and speed of the run on SVB and contributed to its ultimate collapse.

Next steps:

- Through the supervisory process, the DFPI will require banks to consider how to quantify and best manage existing and emerging risks posed by technology-enabled activities such as social media and real-time deposit withdrawals.

Background and Regulatory Framework

A. The U.S. dual banking system

The United States has a "dual banking system" referring to "parallel state and federal banking systems that co-exist" and operate in tandem.[3] The federal system involves a federal bank charter provided under federal law, with oversight by a federal supervisor. The state system involves a state charter based on state law, with oversight by a state supervisor in coordination with a federal primary regulator. Upon formation, a bank chooses whether to seek a federal charter or a state charter. A bank can convert from one charter to another, which requires application to and approval from the other chartering authority.[4]

The dual banking system is unique to the United States. Advocates of the dual banking system have noted that the system permits enhanced competition and efficiency in the financial system, which has led to the United States' long-standing leadership in financial services. For example, a bank that intends to operate only in a specific geographic footprint may be better served by a state charter, as the state regulator may better understand the local economic environment and business model of the bank. On the other hand, a bank that intends to operate on a national basis may choose to obtain a federal charter, which can best ensure that it is prepared for nationwide scale, but both federal and state-chartered banks can operate nationwide.

B. Federal charter

National banks are chartered by the Office of the Comptroller of the Currency (OCC), an independent bureau of the United States Department of Treasury. The OCC is the oldest federal banking regulator and was established in 1863. Federal law requires that national banks be member banks of the Federal Reserve System and be insured under the Federal Deposit Insurance Act.[5] The OCC is the primary regulator of national banks, with the Federal Reserve and the FDIC having secondary authority.

[3] *National Banks and the Dual Banking System*, Office of the Comptroller of the Currency (OCC) (Sep. 2003).
[4] *Id.*
[5] 12 U.S.C. § 222.

C. State charter

State banks are chartered by the appropriate state banking regulator. In California, the DFPI charters state banks.[6] California-chartered banks are insured by the FDIC.[7] The bank chooses whether to become a member of the Federal Reserve System, as membership is not a requirement under California law. A state bank that chooses to be a member of the Federal Reserve System is called a "state member bank." A state bank that chooses not to be a member of the Federal Reserve System is called a "state non-member bank."

California state banks are supervised by the DFPI and a primary federal regulator. For state non-member banks, the FDIC is the primary federal regulator. For state member banks, the Federal Reserve is the primary federal regulator, and the FDIC is secondary. The DFPI works with the appropriate primary federal regulator to supervise and examine California-chartered banks. SVB was a state member bank. Therefore, the Federal Reserve was SVB's primary federal regulator, and the FDIC was the secondary federal regulator.

D. DFPI and the history of banking supervision in California

Commissioner Clothilde V. Hewlett heads the DFPI, which operates under the California Business, Consumer Services & Housing Agency (BCSH).

The DFPI protects consumers, regulates financial services, and fosters responsible innovation in the State of California. The Department oversees the operations of state-licensed financial institutions, including banks, credit unions, money transmitters, and premium finance companies. The Department licenses and regulates a variety of financial businesses, including securities brokers and dealers, investment advisers, student loan servicers, deferred deposit originators (commonly known as payday lenders), and certain fiduciaries and lenders.

The DFPI also regulates the offer and sale of securities, franchises, and off-exchange

[6] Cal. Fin. Code §§ 1020, 1044.

[7] Cal. Code Regs. tit. 10, § 10.3520.

commodities. Under authority granted by the California Consumer Financial Protection Law (CCFPL) in 2020, the Department oversees previously unregulated providers of financial products and services, such as early wage access companies, debt collectors,[8] debt relief companies, among others.

The DFPI has a long history as a state banking regulator, dating back to the formation of California's first banking department over a century ago. The Department was renamed the DFPI in 2020 with the passage of the CCFPL. The DFPI continues to serve as the state's banking supervisor and to administer the state's banking laws.

Table 1: Timeline of California Banking Regulation

Early History
Starting in 1857, banking enterprises in California were granted charters under the General Corporation Laws. Savings banks were authorized under the provisions of an act passed in 1862.
The Board of Bank Commissioners (1878–1909)
In 1878, an act was passed creating a three-person Board of Bank Commissioners and placed under its jurisdiction "every savings bank and banking company incorporated under the laws of this state, or any other state or country doing business in this state." This marks the advent of banking supervision in California.
The State Banking Department (1909–1997)
In 1909, the Bank Act was passed, creating the State Banking Department with a Superintendent of Banks appointed by the Governor to a term of four years. In 1911 this changed to the Superintendent holding office "at the pleasure of the Governor." The Bank Act was revised in 1949 and was codified in 1951 as Division I of the California Financial Code. The Bank Act was again extensively revised in 1979 to bring it in line with General Corporate Law and Generally Accepted Accounting Principles.

[8]Debt collectors are included under the CCFPL, and the California Debt Collection Licensing Act, also passed in 2020, grants the DFPI licensing authority over debt collectors. (Cal. Fin. Code §§ 1000 – 2176).

The Department of Financial Institutions (1997–2013)

The State Banking Department, which regulated commercial banks, savings and loan associations, and trust companies, merged in July 1997 with part of the Department of Corporations, which regulated credit unions and industrial loan companies. The new entity was called the Department of Financial Institutions (DFI). For the first time, the responsibility for the safety and soundness of California's depository institutions was combined under one department.

The Department of Business Oversight (2013–2020)

In July 2013, the DFI merged with the remainder of the Department of Corporations (DOC), which regulated other financial companies, such as mortgage lenders, finance lenders, securities, broker-dealers, and investment advisors. They formed the Department of Business Oversight (DBO), which reported to a newly formed Business, Consumer Services & Housing Agency. With this merger, all of California's financial services and products were regulated by one department. The functions of the two former departments operated as divisions within the DBO.

The Department of Financial Protection and Innovation (2020–present)

The California Consumer Financial Protection Law (CCFPL) changed the Department's name from the Department of Business Oversight to the Department of Financial Protection and Innovation (DFPI). The CCFPL also provided expanded supervisory and enforcement powers to protect California consumers from financial harm. The legacy functions from the Financial Institutions and Corporations divisions (including banking) were combined into one division, while newer supervisory functions added in 2020 were aligned to a new consumer financial protection division. An innovation office was also created. The revamped Department continues to report to the Business, Consumer Services & Housing Agency.

E. Bank supervision

1. Overview

The broad objectives of bank supervision and regulation are to foster and maintain safe and sound banking conditions, as well as to protect the public interest. This includes fostering and maintaining sound and solvent individual banks run by competent management, who protect the depositors and adequately serve the needs of the community.

Although bank examination is the foundation of bank supervision, supervision covers a broader range of activities than examination alone. Supervision also includes the licensing process, which allows regulators to control entrance into the banking business by granting charters only where there is a demonstrated need for the bank and a reasonable promise of success; and it includes reviewing applications for new facilities, which allows regulators to control the expansion of banks through branching, mergers, and consolidations. In addition to the continuing supervision of existing licensees through regular, periodic bank examinations, the DFPI monitors various regularly reported financial data and ratios from its bank licensees.

Bank supervision does not involve oversight of day-to-day bank management. The responsibility for bank management and operation decisions rests with the bank's board of directors. When bank managers demonstrate an inability to effectively direct the activities of the bank or if the continued viability of the bank is threatened, supervision techniques are used by regulators to strengthen or replace management.[9]

2. The business of banking

Banks are privately-owned financial institutions that, generally, are chartered to accept deposits and make loans.

Banks earn money in three primary ways: (1) interest income based on loans,[10] (2) yield on investments,[11] and (3) service charges and fees, such as minimum balance fees, overdraft fees, and safe deposit box fees.

Banks cannot lend the entirety of the deposits they accept. Otherwise, they would not have funds to meet deposit withdrawals. Therefore, they maintain primary and secondary reserves. Primary reserves are the reserves required by the Federal Reserve System that a bank must maintain against its transaction accounts.[12] Secondary reserves are typically

[9]For example, the Department can issue an order under California Financial Code section 580 requiring the bank to retain and maintain competent management within a specified timeframe, subject to approval by the regulators.

[10]Banks often will pay interest on deposits. A bank will then lend out money using those deposits and charge a higher interest rate to borrowers. The difference between what the bank pays for deposits and what they charge on loans is what the bank earns as interest income.

[11]Banks will typically invest in securities as part of maintaining reserves and earn interest on those investments.

[12]U.S.C § 461; 12 C.F.R. § 204.

assets invested in marketable securities, such as government bonds, which may be pledged with the Federal Home Loan Bank or Federal Reserve Bank to draw a line of credit to meet short-term cash needs.

Federal law establishes requirements for the percentage of deposits a bank must maintain as primary reserves either at the local Federal Reserve Bank, a correspondent bank, or as vault cash.[13] Excess reserves are funds that a bank has after it meets its reserve requirement and can be lent out.[14]

The fractional-reserve banking system, which is in operation in most countries worldwide,[15] does not require banks to hold cash to cover all deposit liabilities in full. Under a fractional-reserve banking system, banks that take deposits only are required to hold a fraction of their deposit liabilities in cash or liquid assets.[16] Banks can lend on the remainder. If banks were required to maintain reserves equal to 100 percent of deposits, they would be severely limited in their ability to lend and would likely not be profitable. This system assumes that a large percentage of depositors will not attempt to withdraw all their deposits at the same time.

3. UFIRS and CAMELS

Banks chartered by the DFPI operate under a federally created evaluation system known as the Uniform Financial Institutions Rating System (UFIRS). In March 1979, the Federal Financial Institutions Examination Council (FFIEC) was created through the Financial Institutions and Interest Rate Control Act of 1978.[17] Its purpose is to prescribe uniform principles and standards for the federal examination of financial institutions by the OCC,

[13]The Federal Reserve Act authorizes the Federal Reserve Board to establish reserve requirements within specified ranges for purposes of implementing monetary policy on certain types of deposits and other liabilities of depository institutions. 12 U.S.C. § 461. On March 15, 2020, the Federal Reserve Board reduced reserve requirement ratios to zero percent, effective March 26, 2020. That zero percent requirement remains in effect.

[14]*I Noticed That Banks Have Dramatically Increased Their Excess Reserve Holdings. Is This Buildup of Reserves Related to Monetary Policy?*, FRBSF (Mar. 2010).

[15]Frederic S. Mishkin, Economics of Money, Banking and Financial Markets (10th ed. 2012).

[16]Fractional Reserve Banking: What It Is and How It Works, Investopedia (Mar. 28, 2023).

[17]Financial Institutions and Interest Control Act of 1978, Pub. L. No. 95-630, 92 Stat. 3641 (1978).

FDIC, Federal Reserve Board, Federal Home Loan Bank Board, and National Credit Union Administration and to make recommendations to promote uniformity in the supervision of these institutions. In 1979, the FFIEC recommended the adoption of UFIRS. In 2006, a state regulator seat was added to the FFIEC as a voting member representing the states.

The UFIRS rating system represents a comprehensive and uniform evaluation of an institution's financial condition, compliance with banking regulations and statutes, and overall operating soundness, and has been adopted by nearly every federal and state regulatory agency, including the DFPI.

The rating system provides a framework for evaluating all significant financial, operational, and compliance factors to assign a confidential summary supervisory rating. The specific areas of a bank that are evaluated include:

- Capital Adequacy
- Asset Quality
- Management
- Earnings
- Liquidity and Funds Management
- Sensitivity to Market Risk

These elements account for the use of the acronym CAMELS for a bank's rating. Each component is rated on a scale of 1 through 5 in ascending order of performance deficiency. Component ratings correspond with the following conditions:

1. Strong
2. Satisfactory
3. Less than Satisfactory or Fair
4. Deficient
5. Critically Deficient

Multiple factors are analyzed under each component and ratings decisions require comprehensive quantitative and qualitative analysis. When assigning ratings, examiners consider an institution's size and sophistication, the nature and complexity of its activities, and its general risk profile. Once a rating has been determined for each component, an overall rating is assigned. The overall rating is referred to as the composite rating. The composite rating is also based on a scale of 1 through 5 in ascending order of supervisory concern. In arriving at a composite rating, each component must be weighed and due consideration must be given to the interrelationships among the various aspects of a bank's operations.[18]

4. Banking supervision components

The following is a description of the CAMELS components and other areas evaluated by all state and federal banking regulators.

- Capital Adequacy
  - A bank primarily derives its capital by issuing stock and retaining earnings.
  - Capital serves several important functions: (1) It absorbs fluctuations in income, so a bank can continue to operate in periods of loss or negligible earnings; (2) it provides a measure of assurance to the public that the institution will continue to provide financial services, thereby maintaining confidence in individual banks and in the banking system; and (3) it supports growth yet restrains unjustified or imprudent expansion of assets.

- Asset Quality
  - A bank's assets typically include cash, securities investments, loans, and fixed assets.
  - Loans comprise a major portion of the asset base of most banks. Loans are the asset category which ordinarily present the greatest credit risk, and therefore, the greatest potential for loss to the bank.
  - The securities portfolio of a bank can also represent a significant portion of total assets. Some of the objectives of the securities portfolio are to: (1) provide the maximum yield on investments while maintaining quality in the portfolio; (2) provide a source of liquidity as protection against possible runoff of deposits or a sudden increase in loan demand; (3) fulfill pledging requirements for public deposits, trusts, and borrowings; (4) help manage interest rate risk; and (5) diversify asset risks and income sources.

[18]A bank's composite rating generally bears a close relationship to its component ratings. However, the composite rating is not derived by averaging the component ratings. Each component rating is based on a qualitative analysis of the factors composing that component and its interrelationship with other components. When assigning a composite rating, some components may be given more weight than others depending on the situation at an institution.

- Management
  - Management includes the board of directors and executive or senior officers. The board of directors is elected by the shareholders and has ultimate responsibility for the bank. Executive officers are appointed by the board of directors and involved in the policy-making functions of the bank and its day-to-day operations.
  - The capability of the board of directors and management to conduct the affairs of the bank with candor, personal honesty, and integrity, coupled with their establishment of a strong risk management framework is the most important component to the success of the institution.

- Earnings
  - Earnings represent a bank's first line of defense against capital depletion. The continued viability of a bank depends on its ability to earn a reasonable return on its assets and capital.
  - Earnings serve to absorb losses, augment capital, and provide the shareholders with a reasonable return on their investment.

- Liquidity and Funds Management
  - Liquidity is the measure of cash, liquid assets, and access to borrowing lines that a bank has available to quickly meet short-term business and financial obligations. Primary liquidity reserves include cash and balances due from depository institutions (cash held at other banks). Secondary liquidity reserves include short-term, readily marketable, unpledged securities and other negotiable instruments that can be converted into cash at little risk of loss.
  - Funds management is one core component of sound liquidity planning and management. This involves managing assets and liabilities and off-balance sheet instruments to maximize and maintain the spread between interest earned and interest paid while ensuring the ability to pay liabilities and fund asset growth.

- Sensitivity to Market Risk
  - Sensitivity to market risk addresses the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a financial institution's earnings or capital.
  - A bank must have the ability to identify, monitor, manage, and control its market risk, which typically relates to exposure to changes in interest rates.
  - Interest rate risk is the risk of reduction in, or loss of, capital and earnings caused by adverse changes in market interest rates. The impact of interest rate risk on earnings

is significant because reduced earnings or losses affect the adequacy of a bank's liquidity and capital.

- Bank Secrecy Act
  - The Financial Recordkeeping and Reporting of Currency and Foreign Transactions Act of 1970[19] is commonly known as the Bank Secrecy Act (BSA).
  - The BSA was designed to help identify the source, volume, and movement of currency and other monetary instruments transported or transmitted into or out of the United States or deposited in financial institutions. The statute achieves this objective by requiring individuals, banks, and other financial institutions to file currency reports with the U.S. Department of the Treasury, properly identify persons conducting transactions, and maintain a paper trail by keeping appropriate records of financial transactions. These records enable law enforcement and regulatory agencies to pursue investigations of criminal, tax, and regulatory violations, if warranted, and provide evidence useful in prosecuting money laundering and other financial crimes.
  - BSA examinations focus on a bank's compliance with the BSA and may be performed at the same time as safety and soundness examinations.

- Information Technology (IT)
  - IT examinations evaluate management and oversight of IT activities, compliance with the Gramm-Leach-Bliley Act (GLBA) including on financial privacy,[20] adequacy of the Vendor Management Program, adequacy of the scope and quality of a bank's internal audit of IT activities, review of cybersecurity policies, and enterprise-wide contingency planning.

5. Bank examinations

Banks regulated by the DFPI are examined for their safety and soundness at regular intervals. California Financial Code section 500 establishes the Department's authority to examine licensees. Each bank must be examined on-site at least once every 12 or 18

[19] 31 U.S.C. §§ 5311 - 5336.

[20] The GLBA, also known as the Financial Services Modernization Act of 1999, is a federal act that, among other things, includes a financial privacy rule that governs the collection and disclosure of a customer's personal financial information. (Financial Services Modernization Act of 1999, Pub. L. No. 106-102, 113 Stat. 1338 (1999)).

months depending on size, which mirrors the federal mandate for examination frequency.[21] In addition, the DFPI performs quarterly off-site monitoring, composed of reviewing call reports and the Uniform Bank Performance Report (UBPR), which include key financial data and ratios.

The purpose of periodic examinations is to determine the condition of a bank and to require that the bank's management take steps to correct weaknesses or unsafe and unsound conditions. With the findings from the field examination, the Department can determine whether the bank is operating in a safe and sound manner, prescribe necessary corrective actions, and formulate specific supervisory actions for the bank, if needed. The findings and recommendations of state and federal regulators are communicated to the bank's board of directors and senior management and then summarized in a confidential[22] Report of Examination (ROE) issued to the bank.[23]

6. Collaboration between federal and state regulators

The Department performs bank examinations independently and with federal regulatory agencies: primarily the FDIC and Federal Reserve. The examinations conducted with the FDIC and Federal Reserve involve each agency sharing in the completion of examination functions, including scoping, prepping, exam management and execution, vetting, and report writing.

State chartered banks with total assets of less than $10 billion and a composite CAMELS

[21]Certain small banks that meet specified criteria are only examined at least once every 18 months. (Cal. Fin. Code § 500(a)(4); 12 U.S.C. § 1820(d)(4)). As part of the issuance of a new charter, banks are generally examined in each of the first three years of operation.

[22]Cal. Fin. Code § 159.

[23]The Federal Reserve communicates recommendations using the terms Matters Requiring Attention (MRA) and Matters Requiring Immediate Attention (MRIA). MRAs are "a call for action to address weaknesses that could lead to deterioration in a banking organization's soundness." MRIAs are "a call for more immediate action to address acute or protracted weaknesses that could lead to further deterioration in a banking organization's soundness, may result in harm to consumers, or have caused, or could lead to, noncompliance with laws and regulations." Both MRAs and MRIAs are confidential and not publicly issued. (Federal Reserve Supervision and Regulation Report - November 2019, Board of Governors of the Federal Reserve System (June 21, 2022)).

rating of 1 (Strong) or 2 (Satisfactory) are examined independently on an alternating basis by their state or primary federal regulator.[24] This is referred to as an Alternating Examination Program (AEP). In other words, if the DFPI examines a bank in this category independently one year, the primary federal regulator will examine the bank independently the next year. The DFPI and federal regulator share their examination findings and reports with each other. Under the Alternating Examination Program, when it is the DFPI's turn to examine a bank independently, the DFPI will issue an independent report and share it with the federal regulator. The federal regulator will accept the report and not issue its own report for that examination cycle.

Banks with a composite CAMELS rating of 3 (Less than Satisfactory), 4 (Deficient), or 5 (Critically Deficient) are generally examined jointly by federal and state regulators each year and are subject to a visitation at six-month intervals in addition to the annual examination. Such banks are also likely under orders requiring them to submit quarterly progress reports on their remediation efforts.

7. Large bank supervision

In California, banks with total assets of $10 billion or more are supervised under the Department's Large Bank Supervision Program in coordination with federal regulatory agencies. Out of the 99 banks the DFPI supervises,[25] 9 are over the $10 billion threshold.

The Federal Reserve Large and Foreign Banking Organization (LFBO) program oversees banks with total assets of $100 billion or more.[26] As a bank grows above the $100 billion threshold, it generally receives increasing federal regulatory scrutiny and high-level oversight by the Federal Reserve Board of Governors in Washington, DC.

Under the DFPI's Large Bank Supervision Program, an examination team led by a Dedicated Examiner-in-Charge, Asset Manager, and Operations Manager is typically assigned to each large bank and a unique supervisory plan is prepared to address the risk profile of the individual bank. Currently, the supervisory plan is prepared by the primary federal regulator

[24]The Department has agreements with the FDIC and Federal Reserve to participate in an Alternating Examination Program (AEP). The purpose of the AEP is to promote effective and efficient supervision that is collaborative, inclusive, and appropriately limits regulatory burden.

[25]Of the 99 banks the DFPI supervises, 96 are commercial banks and 3 are industrial banks.

[26]*Large Financial Institutions*, Board of Governors of the Federal Reserve System (Dec. 18, 2020).

with input from the Department, and the Department then coordinates with the primary federal regulator to execute the supervisory plan. Going forward, the Department will continue to develop large bank supervisory plans in coordination with federal regulators for all banks with assets of more than $10 billion, and it will increase focus on timelines for corrective actions and allocating banking staff examination hours based on the risks identified in these supervisory plans. (See section V.B.2.)

A common supervisory plan for a large bank will call for various risk-specific target examinations throughout the year, followed by a comprehensive cycle-ending "roll-up" examination in which examination findings are consolidated and composite CAMELS component ratings are assigned. However, the supervisory plan may be adjusted or modified at any time depending on early warning indicators or changes in a bank's financial condition.

The Department's Large Bank Supervision Program also incorporates off-site monitoring, including reviewing up-to-date financial data and ratios from bank licensees and monthly board packages, which bank management submits directly to the dedicated examination team. Board package submissions include board meeting minutes and various internal reports from management. The dedicated examination team also reviews quarterly call reports and the UBPR, which include key financial data and ratios. This allows the Department to monitor its largest and most complex banks closely and continuously.

8. Enforcement actions

The condition of a bank will determine whether and what type of enforcement action is necessary to ensure the correction of any deficiencies identified in an examination or visitation.[27]

Enforcement actions may be taken independently or jointly with the primary federal regulator on a case-by-case basis, regardless of whether the examination was joint or independent.

Enforcement actions fall into two categories—informal and formal. Informal actions include board resolutions and memoranda of understanding. Formal actions include cease and desist orders and written agreements.

[27] Cal. Fin. Code § 580.

Generally, a bank with a CAMELS composite rating of 3, 4, or 5 is operating under some type of informal or formal enforcement action.

a. Informal enforcement actions

Informal actions are appropriate when regulators have identified deficiencies, but they have also determined that the licensee's executive management and board are committed to and capable of effecting correction with some direction but without the initiation of a formal corrective action. Informal actions are not publicly disclosed.

A board resolution is an informal commitment adopted by a licensee's board (often at the request of the Department) directing the licensee's personnel to take corrective action regarding specific noted deficiencies. A memorandum of understanding (MOU) is an informal agreement between a licensee and the Department, which is signed by both parties. The appropriate federal regulator may also be a party to the agreement.

b. Formal enforcement actions

Formal actions include cease and desist orders and written agreements. Both are legally enforceable[28] and are publicly disclosed.

An order is issued by the Department pursuant to statutory authority, typically under California Financial Code section 580, by which a licensee is directed to take affirmative actions to correct identified deficiencies. Issuance of an order under section 580 requires notice and a right to a hearing. However, the order is usually negotiated between the Department and the licensee, and the licensee will typically waive notice and the right to a hearing and consent to the order.

An agreement is a voluntary arrangement between the Department and a licensee that is intended to accomplish the same ends as an order without the requirement of a hearing right.[29] An agreement may be used in situations where an order would generally be required,

[28]*See generally* Cal. Fin. Code §§ 329, 580 (referencing ability to enforce written agreements between the Commissioner and licensees).

[29]Unlike an MOU, a voluntary agreement is a formal action, and failure to comply with such an agreement can subject a licensee to immediate further enforcement action, such as penalties under California Financial Code section 329, subdivision (b) or additional extreme regulatory action, such as closure. In contrast, failure to comply with an MOU will generally result in a formal action being issued.

but for various reasons, an agreement is acceptable. The benefit of an agreement for a licensee is that the licensee takes voluntary action in a situation where an order could be issued. An agreement does not preclude the Department from subsequently issuing an order directing remediation of the same deficiencies covered by the agreement if the Department determines that the agreement is not proving to be effective corrective action.

In general, a formal action will be issued if the Department determines an MOU is insufficient given the severity of the deficiencies, or the Department has determined that the licensee's management and board are not committed to or capable of effective corrective action without clear direction from the Department.

A bank's composite CAMELS rating is not the only factor the Department considers when determining whether to issue a formal action. If the Department finds any of the factors listed in California Financial Code section 580, such as unsafe or unsound condition, violation of applicable laws or regulations, or noncompliance with prior agreements, the Department can issue a formal action or order.

The Department monitors the bank's compliance with the actions, and the bank is required to submit progress reports detailing its compliance efforts. The Department has broad enforcement authority to tailor actions to a bank's specific condition. For example, the Department can amend actions, issue new actions to supersede prior ones, issue multiple actions concurrently, or issue a formal action to replace an informal one if the circumstances warrant it.

Summary of DFPI's Supervision of Silicon Valley Bank

A. Background

Silicon Valley Bank was founded in 1983 in Santa Clara, California, and operated as a regional bank with branches primarily in California. SVB established itself as the provider of banking products and services to the technology industry, including venture-backed tech startups. SVB self-reported it provided banking services to roughly 44 percent of venture-backed tech and health care Initial Public Offerings (IPOs) in 2022 and 55 percent in 2021.[30] The institution grew rapidly in recent years, from $50 billion in total assets in 2017 to over $100 billion in 2020 to over $200 billion in 2021.

> Note: Silicon Valley Bank Financial Group (SVBFG) was the holding company of SVB until March 10, 2023. As the holding company, SVBFG owned a controlling share in SVB and exercised control over management and company policies but did not offer banking services or run the bank's day-to-day operations.

B. Overview

As the chartering regulator of SVB, the DFPI worked with the FRBSF to examine the bank as a part of the state's Large Bank Supervision Program.

1. Growth of SVB's assets and deposits

Beginning in 2020, SVB and SVBFG experienced significant growth, primarily driven by increased deposit inflows from a rise in venture capital funding of companies in the technology industry, SVB's core customers. On June 30, 2021, SVBFG crossed the Regulation YY covered financial institution threshold, based on a four-quarter average of deposits, and therefore met the criteria for a Category IV firm.[31]

[30] *The Rise and Stunning Fall of Silicon Valley Bank*, Axios (Mar. 11, 2023).

[31] Regulation YY requires that entities with over $100 billion in deposits be subjected to higher prudential standards.

SVB's deposit growth continued in 2022. As of March 31, 2022, SVB's total deposits exceeded $200 billion, and SVB had reached $217 billion in total consolidated assets.[32]

Figure 1 below shows SVB's deposits and assets increases over time.[33]

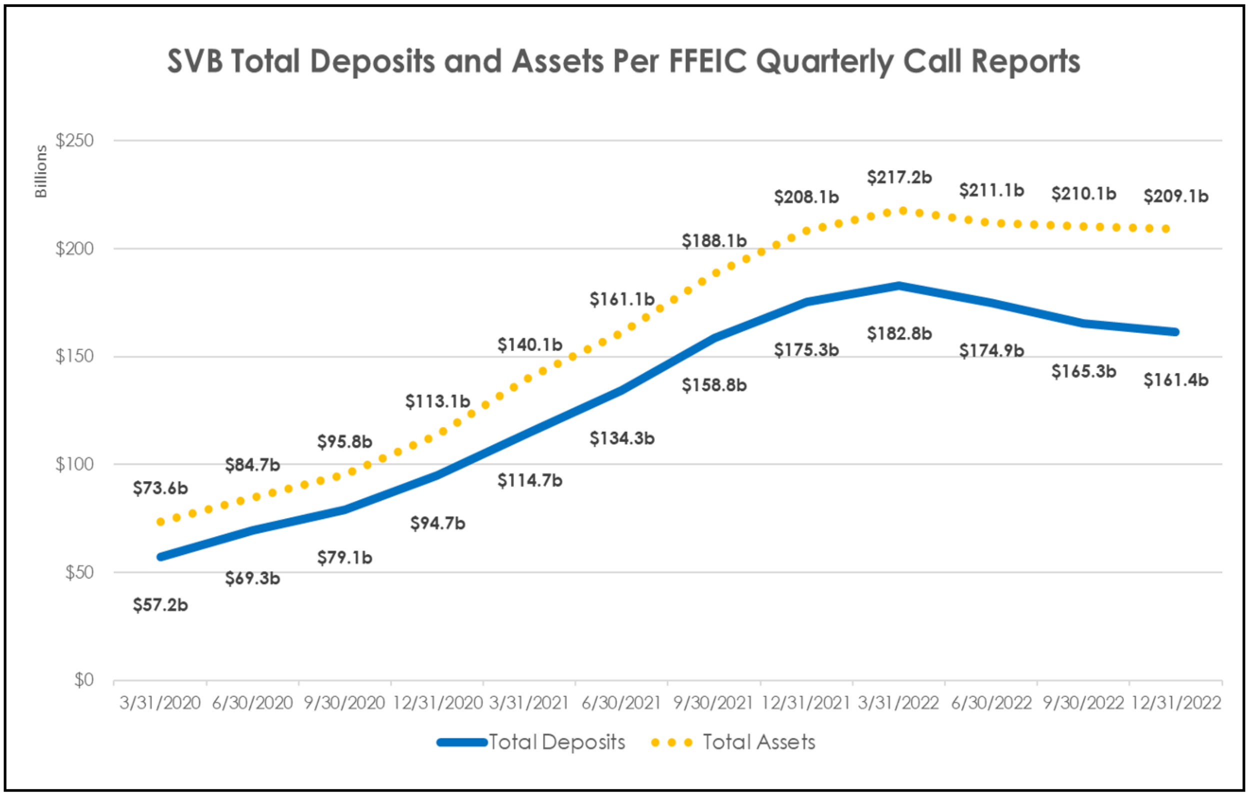

Figure 1: SVB's deposit and assets from March 31, 2020, to December 31, 2022

2. SVB's merger with Boston Private Bank & Trust in 2021

In addition to SVB's growth in deposits, the bank also grew with the merger of Boston Private Bank & Trust Company (Boston Private), a Massachusetts state-chartered bank. SVB

[32]Per the Federal Financial Institutions Examination Council (FFIEC) call report, as of March 31, 2022, balance sheet assets totaled $217,804,000,000 ($217 billion).

[33]Data were obtained from publicly available FFIEC quarterly call reports, under Schedule RC—Balance Sheet. Data for total deposits: see line 13a—Deposits in domestic offices. Data for total Assets: see line 12—Total assets.

was a wholly-owned subsidiary of SVBFG. Boston Private was a wholly owned subsidiary of Boston Private Financial Holdings, Inc. Both banks were members of the Federal Reserve. Thus, SVB needed approval from both the Federal Reserve and the DFPI to complete the merger.

On February 23, 2021, SVB applied for approval from the Federal Reserve and the DFPI. The DFPI reviewed the merger to determine if it met the standards for approval specified in California Financial Code section 4885. To approve, the DFPI must find that the merger will not result in a monopoly or substantially lessen competition within the state, that the shareholders' equity of the surviving bank will be adequate, that the financial condition and directors and executive officers of the surviving bank will be satisfactory, that the surviving bank affords a reasonable promise of successful operation and will be operated in a safe and sound manner, and that the merger will be fair, just, and equitable and in compliance with applicable laws.

Balance sheets submitted with the merger application indicate that Boston Private's total asset size prior to the merger was approximately $10 billion and that SVB's asset size was $113.8 billion. Thus, the merger with Boston resulted in an approximately nine percent increase in SVB's total assets.

While SVB had outstanding Matters Requiring Immediate Attention (MRIAs) and Matters Requiring Attention (MRAs) at the time of the merger application, these issues were primarily related to IT, lending controls, internal credit review, and enterprise risk management controls monitoring. These concerns did not mandate a finding that the bank would be unable to operate in a safe or sound manner, especially since the bank was actively working to address them. Thus, the Department applied the administrative standard and approved the merger.

3. SVB's high uninsured deposit ratio

In addition to SVB's deposit base being highly concentrated in the technology industry, SVB had a significant level of uninsured deposits. As of year-end 2022, SVB had $151.6 billion in uninsured deposits representing 93.8 percent of the bank's total deposits.[34] This was the highest ratio of uninsured deposits to total deposits of any U.S. bank with $50 billion or more in total assets as of December 31, 2022.[35]

Figure 2 shows SVB uninsured deposits levels compared to the five largest U.S. banks by assets size as of December 31, 2022. Figure 3 shows the uninsured deposits of the five largest California banks by assets size, including SVB, as of December 31, 2022.[36]

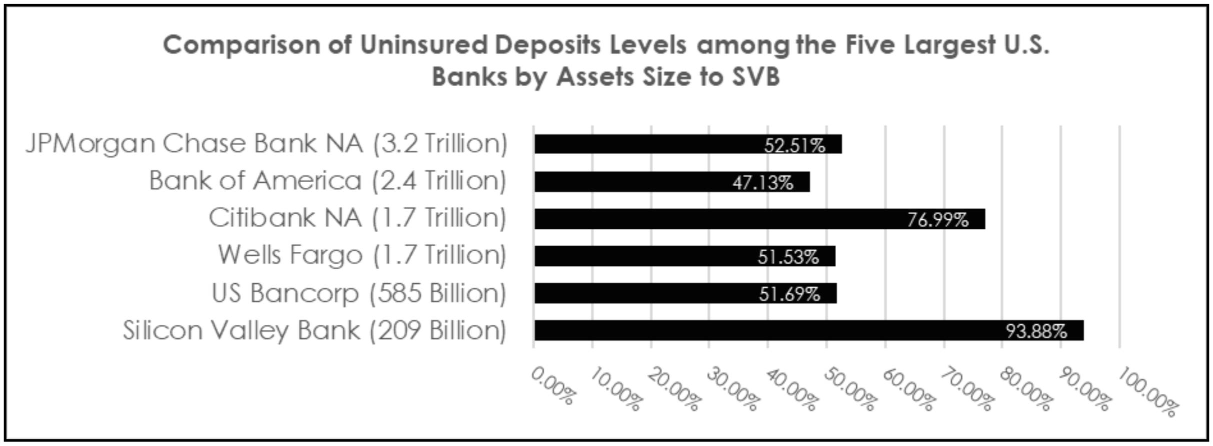

Figure 2: SVB uninsured deposits levels compared to the five largest U.S. banks by assets size as of December 31, 2022

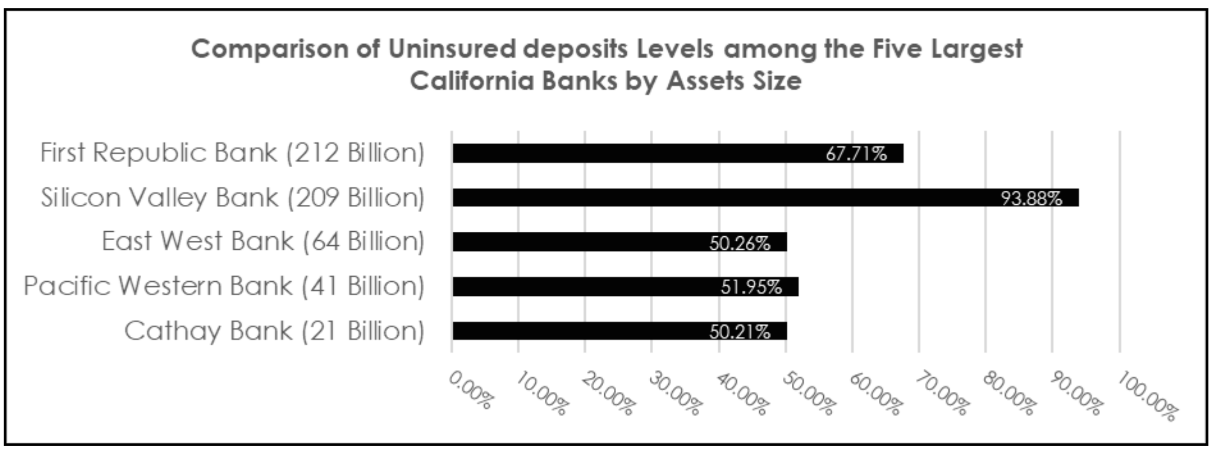

Figure 3: Uninsured deposits of the five largest California banks by assets size, including SVB, as of December 31, 2022.

[34]*SVB, Signature Racked up Some High Rates of Uninsured Deposits,* S&P Global Market Intelligence (Mar. 14, 2023).

[35]*Id.*

[36]Data were obtained from publicly available FFIEC quarterly call reports. Data for total deposits: see Schedule RC—Balance Sheet line 13a (Deposits in domestic offices). Data for total uninsured deposits: see Schedule RC-O—Other Data for Deposit Insurance and FICO Assessments line M.2. These are estimated amounts of uninsured deposits in domestic offices of the bank and in insured branches in Puerto Rico and U.S. territories and possessions, including related interest accrued and unpaid.

Historically, bank examiners have not viewed a high ratio of uninsured deposits to total deposits as a significant risk factor. In fact, historically, fully insured brokered deposits[37] have exhibited higher volatility[38] because these depositors tend to chase high yields and therefore have less loyalty to any bank. For this reason, federal regulators have published significant guidance about how banks should best manage the risks associated with brokered deposits.

One common source of uninsured deposits are large corporations and businesses that maintain balances over $250,000 in their operating accounts to cover payroll, collect money from vendors, and pay for day-to-day expenses. Moving operating accounts from one bank to another poses logistical challenges, which incentivizes businesses to stay with one bank for a long time. Given this is standard for business accounts, examiners would not ordinarily consider these deposits to be volatile even though they are uninsured. However, given that SVB's uninsured deposits were concentrated in one industry, they posed a heightened liquidity risk to the bank.

C. Examinations

The DFPI is responsible for conducting bank examinations to ensure that banks are operating in a safe and sound manner and are complying with applicable laws and regulations. These examinations are designed to assess a bank's financial condition, risk management practices, and compliance with regulatory requirements. From 2009 until its collapse in March 2023, SVB was examined jointly by the DFPI and the FRBSF.

Due to its asset size and complexity, SVB was examined on a continuous basis and monitored by the DFPI and the FRBSF examiners throughout the year.[39] The DFPI and the FRBSF had divided their responsibilities in such a way that oversight activities were led primarily by the FRBSF, with DFPI staff monitoring supervisory activities and collaborating with the FRBSF on discrete exams.

This section will provide an overview of SVB supervisory activities during the 2021 and 2022 supervisory cycles.

[37]Brokered deposits can be in any amount, i.e. under $250,000 and fully insured or over $250,000 with the portion above $250,000 being uninsured.

[38]Unsafe and Unsound Banking Practices: Brokered Deposits and Interest Rate Restrictions, 84 Fed. Reg. 2,366.

[39]The DFPI and the FRBSF monitored SVB under a continuous examination process after SVB transitioned to the FRBSF's Large and Foreign Banking Organizations (LFBOs) portfolio from the Regional Banking Organizations (RBOs) portfolio in February 2021.

1. The supervisory cycle and collaboration between FRBSF and DFPI

After SVB entered the Large and Foreign Banking Organization (LFBO) portfolio in February 2021, the FRBSF took the lead in examinations.

The FRBSF prepared supervisory plans with input from the Department, and the two regulators coordinated to execute the supervisory plans.

The regulators allocated staff based on the requirements of the supervisory plans and on their available resources. For the DFPI's part, a total of 12 DFPI examiners participated in supervising SVB, but only two were specifically dedicated to SVB. In contrast, the FRBSF had a team specifically dedicated to SVB that grew to approximately 20 examiners, with subject matter expertise examining large banks in excess of $100 billion in total assets.

During the 2022 examination cycle, the DFPI collaborated with the FRBSF on six of the 10 targeted examinations:[40] (1) Governance and Risk Management, (2) Bank Secrecy Act and Anti-Money Laundering Compliance, (3) CAMELS Roll-Up Examination, (4) Trust and Fiduciary Services, (5) Information Technology, and (6) Internal Audit.

The DFPI did not participate in the remaining four exams: (1) Model Risk Management ECM Review, (2) Third-Party Risk Management Horizontal Review, (3) LFBO Horizontal Cybersecurity Review (HCSR), and (4) LFBO Horizontal Capital Review (HCR).[41]

Table 2 below lists the examinations conducted in 2021 and 2022, including those in which the DFPI collaborated with the FRBSF.

[40]The 2022 supervisory cycle Asset Quality exam was incorporated in the CAMELS roll-up exam. Although it was not conducted separately as a target exam, the Asset Quality exam conducted covered the equivalent scope as a target exam.

[41]A horizontal review is an assessment that compares and evaluates the practices of multiple banks across the country, rather than focusing on a single institution. The purpose of a horizontal review is to identify common trends and risks by comparing information from a wide pool of institutions. Horizontal reviews require the comparison of confidential banking information from institutions across the country. The subjects and information used for horizontal reviews fall outside of the DFPI's jurisdiction, so the Department did not participate in the horizontal reviews of SVB. Although the DFPI did not participate in the exam work programs for three horizontal reviews, DFPI's DEIC and examiners attended meetings with SVB and the FRBSF and were kept apprised of the developments and findings.

Table 2: SVB's Examination History

Date	On-Site or Remote Supervisory Effort	DFPI's Role
4/26/2021	It Target Exam	The DFPI collaborated with federal regulators.
5/24/2021	Asset Quality Target Review	The DFPI collaborated with federal regulators.
7/26/2021	BSA/AML Target Exam	The DFPI collaborated with federal regulators.
8/16/2021	FRB Independent Liquidity Review	The DFPI did not participate this examination.
9/7/2021	FRB Independent Capital Review	The DFPI did not participate this examination.
10/2/2021	IT Target Exam	The DFPI collaborated with federal regulators.
3/14/2022	Governance and Risk Management Exam	The DFPI collaborated with federal regulators.
4/11/2022	BSA/AML and OFAC Exam	The DFPI collaborated with federal regulators.
4/25/2022	FRB Independent Horizontal Capital Review	The DFPI did not participate this examination.
6/13/2022	FRB Independent Horizontal Cyber Security	The DFPI did not participate this examination.
7/18/2022	FRB Independent Model Risk Management ECM Review	The DFPI did not participate this examination.
8/22/2022	FRB Independent Horizontal Third-Party Risk Management Review	The DFPI did not participate this examination.
8/22/2022	2022 CAMELS Rollup Exam and AQ review	The DFPI collaborated with federal regulators.
9/12/2022	Trust Target Exam	The DFPI collaborated with federal regulators.
9/12/2022	IT Target Exam	The DFPI collaborated with federal regulators.
10/3/2022	Asset Quality Target Internal Audit Target Exam	The DFPI collaborated with federal regulators.

2. The 2022 target exams in which DFPI participated

- Governance and Risk Management:

  The governance and risk management target exam focused on SVBFG's management effectiveness, board oversight, and risk management practices. The DFPI assisted with examining SVBFG's risk monitoring and reporting framework and provided support in drafting the conclusion memo.

- Bank Secrecy Act and Anti-Money Laundering (BSA/AML) Compliance:

  The DFPI assessed SVB's compliance with the Bank Secrecy Act and AML requirements, including its Bank Secrecy Act training program, governance and oversight, customer due diligence and risk rating, and Office of Foreign Assets Control (OFAC) risk. In addition, the DFPI provided support in drafting the conclusion memo.

- CAMELS Roll-Up Examination:

  The FRBSF was responsible for gathering the bulk of the information for the CAMELS Roll-Up Examination. In addition to handling the bulk of the specific CAMELS components, the FRBSF's routine continuous monitoring provided data key to the CAMELS roll-up examination and ratings. The DFPI only conducted an examination relating to SVB's asset quality, with a focus on its loan portfolio (credit risk management). Specifically, the DFPI examined the effectiveness of the Internal Credit Review (ICR) function, framework and governance, and the adequacy of Current Expected Credit Loss (CECL).[42] The DFPI did not assist with drafting the conclusion memo.

- Trust and Fiduciary Services:

  Trust and fiduciary services examinations typically involved reviewing compliance with relevant laws and regulations, earnings performance, management, operational controls, and faithful execution of a bank's trust and fiduciary functions.

  The DFPI examined SVB's internal controls, internal policy, and governing instruments. In addition, the DFPI provided support in drafting the conclusion memo.

[42]The 2022 supervisory cycle Asset Quality exam was incorporated in the CAMELS roll-up exam. Although it was not conducted separately as a target exam, the Asset Quality exam conducted covered the equivalent scope as a target exam.

- Information Technology:

  The DFPI evaluated SVB's IT systems, including SVB's information security management, risks associated with development and maintenance activities, and cybersecurity. The DPFI assisted with drafting the conclusion memo.

- Internal Audit:

  The DFPI assessed the effectiveness of SVB's Internal Audit execution but did not assist with drafting the conclusion memo.

3. DFPI Staffing

Beginning in March 2020, on-site examination functions were performed virtually due to the COVID-19 pandemic. This was a shift from prior to 2020, when DFPI staff examined the bank on-site during parts of the year. However, review of digital information was standard even before the pandemic. The DFPI and the FRBSF had been reviewing digital versions of SVB's documents for several years leading up to the pandemic. While this review was previously conducted on-site, all examination tasks could be performed virtually, and many tasks could be performed more efficiently and with equal thoroughness using filing sharing and virtual meeting platforms.

For the 2022 supervisory cycle, the DFPI allocated 3,066 hours to examining SVB and participated in six targeted examinations with the FRBSF, compared to 2,434 hours for the 2021 cycle and 1,750 hours for the pandemic-impacted 2020 cycle.[43] The DFPI examination team for SVB included one Dedicated Examiner-in-Charge (DEIC) assigned exclusively to SVB and one Asset Manager (AM). Twelve additional DFPI examiners were assigned to examine SVB at various times during the 2022 supervisory cycle, focusing on risk areas as needed and rotating through other non-SVB assignments as well.

The Dedicated Examiner-in-Charge oversaw the DFPI's supervision of SVB. While the Dedicated Examiner-in-Charge's responsibilities typically include developing the examination plan, assigning work to examiners, and communicating with bank

[43] A target exam is a full-scope exam on specific areas identified by the examiners. Typically, a target exam includes an entry letter, scope memorandum, and a conclusion memorandum with output supervision. It is a point-in-time assessment with a predefined exam scope and not an on-going process.

management and federal counterparts, the Dedicated Examiner-in-Charge assigned to SVB did not develop the examination plan. Instead, the Dedicated Examiner-in-Charge reviewed the examination plan developed by the FRBSF and provided feedback given the FRBSF's expertise and resource available.

Asset Managers are responsible for loan review, loan scoping, review of concentrations in credit (e.g., large loan concentration in a particular industry)[44] and review of the allowance for loan and lease losses. Typically, Asset Managers are focused on examinations related to asset quality.

Although an Operations Manager is typically assigned to examine large banks, an Operations Manager was not assigned to SVB because the DFPI did not initially anticipate needing one due to additional federal staff that had been assigned. From late 2021 through 2022, the Dedicated Examiner-in-Charge highlighted the need for additional resources to review SVB materials adequately, but examiners with the necessary experience and skill sets were already assigned to key roles in other bank examinations, which delayed the allocation of additional staff.[45]

[44]According to internal documents provided by SVB, as of December 31, 2022, SVB's total loan balances were approximately $74.4 billion, with approximately $28.1 billion, or 37.7% of the total loan balances, allocated towards technology-related loans. Out of the $28.1 billion amount, $10.7 billion was attributed to VC loans, which primarily served technologies companies. The remaining $17.4 billion was targeted towards SVB's preferred market for direct loans, which represents the demographic SVB was most interested in serving within the tech industry. Out of the $17.4 billion, $10.2 billion was allocated towards software applications development, $3.8 billion towards life sciences, and $1 billion towards hardware development, while the rest primarily supported energy efficiency businesses.

[45]Toward the end of 2021, the DEIC and the DFPI Financial Institution Manager assigned to SVB elevated the need to divert resources to SVB due to its complexity and large asset size. These discussions did not result in assigning additional staff or an Operations Manager being allocated to the DFPI exam team, as the DFPI determined that the FRBSF had already brought in more examiners and covered the reviews typically assigned to an Operations Manager. However, by early 2022, the Dedicated Examiner-in-Charge reported that, based upon the volume of SVB examination materials being generated, an Operations Manager continued to be needed. Management in DFPI's Banking Program agreed to begin the process of assigning an Operations Manager but competing staff demands, turnover, and employee development delayed the assignment. During a third quarter staff meeting in August 2022, the Dedicated Examiner-in-Charge again reported the inability to review the materials from SVB examinations and the need for additional resources. As noted in the text above, the DFPI allocated additional staff hours and planned to assign an additional full-time examiner prior to the collapse of SVB.

The need for additional oversight resulted in the DFPI Banking Division revisiting the allocation of hours for large institutions.

In August 2022, the banking team planned to increase the allotted examination hours for SVB to 6,000 for the 2023 examination cycle. The plan included assigning an additional full-time examiner to SVB's supervision. Staff would likely not have been available until mid-2023, and therefore, no additional staff were added to the team before SVB's collapse.

D. Supervisory response related to key risks

The DFPI and the FRBSF communicated deficiencies and weaknesses identified by bank examiners to SVB's executive management or its board through various channels. In general, SVB's board of directors and senior management were informed of examination findings and recommendations through joint exit meetings and supervisory letters that included Matters Requiring Attention (MRAs) and Matters Requiring Immediate Attention (MRIAs).[46]

Supervisory letters that identify MRIAs or MRAs require a written management response within a specified timeframe, usually 30 days. These responses from management typically include Management Action Plans (MAPs) outlining timeframes for remediation, steps to be taken, and responsible people charged with the plan's execution. Progress on MAPs is followed up on through interim reporting or at the next target review or examination.

During the 2021 and 2022 supervisory cycles, SVB received 16 supervisory letters, with five independently issued by the FRBSF. All others were jointly issued with the DFPI.

Additionally, the DFPI and the FRBSF worked with SVB executives, including SVB's Chief Financial Officer, to address issues during periodic conference calls. These periodic check-ins enabled bank examiners and SVB staff to synchronize and address any questions or concerns.

[46]Typically, the findings and recommendations are communicated to the bank's board of directors and senior management and then summarized in a Report of Examination (ROE) that is issued to the bank. For the 2021 supervisory cycle, the DFPI and the FRBSF issued a supervisory letter dated August 17, 2022, in lieu of a ROE, because it was combined with the holding company Report of Inspection (ROI) containing LFI ratings. For the 2022 supervisory cycle, a combined ROE and ROI was scheduled to be released in Q1 2023 in the form of a supervisory letter to reduce redundancy. The supervisory letter for the 2022 supervisory cycle was not issued before SVB's collapse.

Table 3 presents the findings related to corporate governance and enterprise risk management, liquidity risk management and positions, and interest rate risk. The discussions of these findings are elaborated on sections 4 through 7.

Table 3: Supervisory Actions

Section 4: Corporate governance and enterprise risk management supervisory letter (May 31, 2022)	
Matters Requiring Immediate Attention (MRIAs)	
MRIA #1	SVB's board effectiveness did not meet supervisory expectations because it failed to hold senior management accountable for executing a sound risk management program.
MRIA #2	SVB's risk management framework did not provide appropriate mechanisms to operate a fully integrated risk management program which impeded management's ability to identify emerging risks.
MRIA #3	SVB's internal audit department failed to establish sufficient methodology and programs to challenge management, provide the audit committee with adequate or timely reporting, or ensure timely analysis of critical risk management functions.
Section 5: Liquidity risk management supervisory letter (November 2, 2021)	
Matters Requiring Immediate Attention	
MRIA #1	FRBSF examiners identified weakness from SVBFG's liquidity risk management project plan.
MRIA #2	SVBFG lacked effective independent review oversight of its liquidity risk management framework.
Matters Requiring Attention (MRAs)	
MRA #1	SVB's internal liquidity stress test did not adequately address market and idiosyncratic risks.
MRA #2	SVB's deposit segmentation input failed to provide sufficient granularity to differentiate client outflows and depositor behavior during stress.
MRA #3	SVB's point-in-time metrics did not adequately account for specific liquidity risks.
MRA #4	FRBSF examiners identified three deficiencies with SVB's contingency funding plan, including: • A lack of quantitative evaluations of funding needs and capacity during a stress-event. • Failure to identify available funding amounts. • SVB's early warning indicators did not include metrics towards private equity and venture capital clients.
Section 6: SVB's liquidity position	
FRBSF examiners found that SVB's liquidity positions were considered adequate in Q1 2023, but modeling forecast showed potential issues at the three-months mark. SVB had sufficient liquidity to handle a $16 billion single day outflow.	
Section 7: Interest rate risk supervisory letter (November 15, 2022)	
Matters Requiring Attention	
MRA #1	SVB's interest rate risk (IRR) simulations were not reliable and required improvements.

1. Supervisory response related to corporate governance and enterprise risk management

The Federal Reserve uses the Large Financial Institutions (LFI) Rating System for examinations of bank holding companies with total consolidated assets of $100 billion or more.[47] While there are similarities in what is being assessed in the CAMELS Management component of a bank examination and the LFI Governance and Controls component of a bank holding company examination—essentially the ability of the board and management to identify, monitor, and control risk (i.e., risk management) and compliance with laws and regulations—the assignment of ratings is different. For the rating of CAMELS components, the delineating factor is the level and degree of problems and risk. If the bank's safety or soundness is in immediate threat, the Management component would typically be rated 4–Deficient.

In the LFI rating system, the ratings reflect how extensive the remediation needs to be. A "Conditionally Meets Expectations" rating for the Governance and Controls component means the remediation is not extensive, is not disruptive to operations, does not entail a major change in risk management and controls, and will not take a prolonged period to fix. A 1-Deficient rating means the fix is extensive and will take a prolonged period.

Due to the holding company's corporate structure, the FRBSF assigned LFI ratings to the holding company SVBFG, while CAMELS ratings were jointly assigned to its subsidiary SVB. During the 2022 supervisory cycle, the DFPI and the FRBSF conducted a joint Governance and Risk Management target examination of SVBFG that began March 14, 2022.[48]

As the exams conducted by the Federal Reserve to determine LFI ratings for a bank holding company can be used to feed into other ratings, such as CAMELS for subsidiary banks, the examination team leveraged the reviews of the bank holding company to revise its assessment of SVB's Management and Risk Management. This resulted in the findings being subsequently incorporated into the ratings of other areas, including the Management component of CAMELS for SVB, and the Governance and Controls component of the LFI rating system for SVBFG.

[47] *SR 19-3 / CA 19-2: Large Financial Institution (LFI) Rating System*, Board of Governors of the Federal Reserve System (Feb. 28, 2019).

[48] Regulators delayed the issuance of ratings for the 2021 supervisory cycle to evaluate the organization against more rigorous supervisory expectations imposed upon large banks designated as an LBFO.

The results of this examination contributed to the downgrade of the Management component of SVB's 2021 CAMELS rating from 2–Satisfactory to 3–Fair and the first LFI rating of Governance & Controls at the Holding Company level of 1-Deficient. At the time that SVB's Management rating was downgraded to 3–Fair, the DFPI and FRBSF did not perceive any imminent threats to the bank.

The Governance and Risk Management examination centered on SVBFG's board effectiveness and SVB's risk management program. To evaluate board effectiveness, the examiners reviewed SVB's board oversight and governance, which encompassed a review of the board's oversight and effectiveness in holding senior management accountable and maintenance of a capable board composition and governance structure. Additionally, the examiners reviewed risk oversight and governance across SVB's risk management program, which encompassed an evaluation of its risk monitoring and reporting and internal audit program to ensure that both the board and the risk management program were effective. The risk management framework that SVB was expected to follow was the industry standard of a "three lines of defense" framework.[49]

This examination concluded on April 8, 2022, and the DFPI and the FRBSF jointly communicated the supervisory findings to SVB through a supervisory letter on May 31, 2022. The assessment showed that SVB's governance and risk management practices were below supervisory expectations. The following MRIAs were issued and required to be completed by August 31, 2022:

- MRIA # 1 Board Effectiveness

  SVB's board did not meet supervisory expectations because it did not hold senior management accountable for executing a sound risk management program. The board lacked members with risk management experience commensurate with SVB's size. The board's lack of oversight was especially problematic with respect to second line internal audits and third line independent risk management as discussed in the following two MRIAs.

[49]Banking's three line of defense model is a risk management framework. The three lines include: First line: Management has the primary responsibility to own and manage risks associated with day-to-day operational activities. The first line also includes design, operation, and implementation of controls. Second line: The second-line function enables the identification of emerging risks in daily operation of the business through risk and compliance management. Third line: The third-line function provides objective and independent assurance, typically through internal audit. While the third line's key responsibility is to assess whether the first- and second-line functions are operating effectively, it is charged with reporting to the board and audit committee. (*Modernizing the Three Lines of Defense Model*, *Deloitte* (2020)).

- MRIA # 2 Risk Management Program

  SVB's risk management framework did not address foundational matters, was not comprehensive, and was not commensurate with SVB's size and complexity. Issues with the risk management framework caused an inconsistent approach to core risk management activities and inadequate risk reporting to management and the board. The risk management structure relied on non-board SVB executive business line committees. These executive committees were primarily focused on business and revenue issues. Ideally risk management decisions would be made by independent risk management committees, primarily focused on ensuring that risk management systems are operating effectively as opposed to a primary focus on business issues. These independent risk management committees provide a second line of defense with a primary focus on ensuring that risk is properly managed.

- MRIA # 3 Internal Audit

  SVB's internal audit was not effective at holding senior management accountable or providing sufficient information for the SVB's Audit Committee to fulfill its oversight responsibilities. In addition, SVB failed to subject known areas of weakness to the audit.

On August 17, 2022, the DFPI and the FRBSF issued a letter detailing supervisory ratings for the 2021 supervisory cycle. The letter was not issued until August due to the FRBSF transition of SVB from the Regional Banking Group to the LBFO group. Once entering this program, a new FRB team was installed and wanted to review more areas before issuing ratings.

The letter, among other topics, explained that SVB's failure to fully remediate its Governance and Control issues outlined in the May 31, 2022, supervisory letter was a major factor in SVB's first LFI Governance and Control rating being "deficient." The letter further explained that a Memorandum of Understanding (MOU) would be implemented to address the outstanding MRIAs regarding Board Effectiveness, SVB's Risk Management Program and SVB's Internal Audit Effectiveness. An MOU is a non-public action that bank regulators can take to obtain a commitment from the bank's board and senior management to correct for inadequacies by the bank.

On August 31, 2022, SVB provided a plan detailing the steps that it had taken to remediate the MRIAs that were first identified in the May 31, 2022, letter and that were reiterated in the August 17, 2022, letter.

On November 18, 2022, the FRBSF and the DFPI responded, noting that examiners recognized the changes SVB made, but they would be leaving the Board Effectiveness, Risk Management Program, and Internal Audit MRIAs open. Examiners left the MRIAs open because more time needed to pass for updated data to accrue, and such was necessary to evaluate the efficacy of SVB's remediation efforts.

A joint Internal Audit examination was conducted from October 3, 2022, to October 28, 2022. On December 27, 2022, the FRBSF and the DFPI sent a letter formalizing the results of the Internal Audit examination which rated SVB's internal audit processes as "not fully effective." Examiners found that the analysis driving the risk assessment was limited, lacking in transparency, and often informal. As part of SVB's internal audit processes, market risk, credit risk, and model risk were incorrectly designated as "not applicable" for SVB Capital[50] without further rationale or challenge. No new MRIA was issued, but the Internal Audit MRIA from the May 31, 2022, letter remained open to be addressed through continuous supervision.

2. Supervisory response related to liquidity risk management

The FRBSF took the lead role in the examination of issues regarding SVB's liquidity with a particular focus on Liquidity Risk Management.[51] On August 16, 2021, FRBSF examiners completed a liquidity target examination of SVBFG independent of the DFPI. The results were shared with the DFPI and, on November 2, 2021, the FRBSF issued a supervisory letter summarizing the findings of the August examination. As a result of the examination, SVB's liquidity risk management practices were deemed to be below supervisory expectations and the following MRIAs and MRAs were issued:

[50]SVB Capital is the venture capital and credit investing arm of SVB. (See *SVB Capital is Operating in the Ordinary Course*, SVB Capital (Apr. 27, 2023)).

[51]The 2021 and the 2022 Target liquidity exams focused on SVB's liquidity management. SVB's liquidity positions were examined independently by the FRBSF due to their expertise and resources available. A Horizontal Liquidity Review comparing SVB to other similar institutions was scheduled by the FRBSF to be conducted Q1 2023, but was not completed due to SVB's closure in March 2023.

- MRIA #1 Enhanced Liquidity Risk Management Project Plan

  Examiners noted that SVB "needs to enhance [its] Liquidity Risk Management project plan." Examiners directed SVB to "re-prioritize control frameworks such as Model Risk Management" after past de-prioritization, and "ensure it has appropriate data sources, while remediating weaknesses related to the [Contingency Fund Planning]."

  - Examiners also noted that the SVB's "governance and controls workstreams need to be clearly linked to liquidity risk management."

  - Examiners directed SVB to enhance its project plan and gap assessment for liquidity risk management by December 31, 2021, by updating the plan to address supervisory concerns in the letter and to ensure sufficient staffing and resources were allocated to execute the plan on established timelines.

- MRIA #2 Oversight and Challenge

  Examiners noted that SVBFG, the holding company for SVB, "lacks effective independent review oversight and challenge of its liquidity risk management framework." Importantly, examiners noted that "[with] the significant recent deposit inflows, concentrated in uninsured deposits, SVBFG's liquidity risk profile continues to evolve. The level of oversight by the independent review functions, however, have not kept pace."

  - Examiners identified multiple instances in which SVBFG's second-line financial and model risk management teams failed to challenge problematic approaches by SVB.

  - Examiners said that the consequence of these deficiencies were "undetected shortcomings in SVBFG's Internal Liquidity Stress Testing (ILST), limits framework and contingency funding planning." Examiners directed SVBFG to "immediately establish an effective process for reviewing and challenging liquidity risk management practices" by March 31, 2021.

- MRA #1 Internal Liquidity Stress Testing Design

  Examiners found that "scenario design elements in ILST do not adequately address both market and idiosyncratic risks." Specifically, examiners raised concerns that SVB's risk model incorporated assumptions based upon "incomparable peer benchmarks," noting specifically that "SVBFG's historical analysis was based off other banks largely with a retail deposit base subject to FDIC insurance coverage, while SVBFG's deposit base is largely commercial deposits without FDIC insurance coverage."

Examiners also stated that "scenario design contains assumptions tailored to capital stress testing rather than the more immediate impact of a liquidity stress." Examiners stated that the risk with SVB's flawed assumptions was that it might cause SVB to have an insufficient liquidity buffer. SVB was given until June 30, 2022, to enhance its ILST scenario design and directed that the design should be subject to review and challenge "by an independent function."

- MRA #2 Deposit Segmentation

  Examiners found that the deposit segmentation input assumptions used for SVB's models did "not have sufficient granularity to differentiate client outflows during stress." In other words, the data about deposit makeup that SVB used in its liquidity testing was insufficiently granular, leading SVB to assume all depositors will behave similarly under stress.

  Examiners noted that assuming all deposits will behave "similarly is unrealistic and potentially understates outflows under stress," and that these flawed assumptions could lead SVB to have an insufficient liquidity buffer. SVB was given until June 30, 2022, to enhance the deposit segmentation inputs for its stress testing model.

- MRA #3 Liquidity Limits Framework

  SVB's point-in-time metrics did not account for the firm's specific liquidity risks or how they would absorb losses under stressful conditions. The business side of the firm was able to draw from funds to a degree that is not linked to SVB's overall liquidity risk appetite.

  By June 30, 2022, SVB was required to develop a comprehensive liquidity and monitoring framework to better anticipate demands on available liquidity sources in stress.

- MRA #4 Contingency Funding Plan (CFP)
  - Examiners noted three deficiencies with SVB's CFP:
    - The plans did not include a quantitative evaluation of expected funding needs and funding capacity during a stress event and lacked realistic assessments of how funds providers would behave under stress.

    - SVB identified contingent funding sources but did not identify available amounts based upon active contracts or internal firm limits. This led to unrealistic assumptions about funding capacity. For example, funding sources such as brokered CDs and discount window access were not tested, and SVB assumed more funding capacity than available for some of the tested sources.

    - SVB's "Early Warning Indicators" (EWIs) were not tailored to its liquidity risk profile. Examiners noted that SVB's EWIs "do not have any specific metrics oriented towards private equity and venture capital despite the firm's business model centered on these types of clients."

- Examiners noted that "ineffective CFP negatively affects management's ability to assess whether the firm is under liquidity stress, what funding is available in varying levels of stress, and its ability to respond quickly to a real stress event." Examiners directed SVB to make improvements to its CFP by June 30, 2022. As remedial measures, examiners directed SVB to:

    - Include a quantitative projection and evaluation of expected funding needs and capacity under stress.

    - Accurately identify and test alternative sources of liquidity to ensure access to contingent funding sources.

    - Enhance the Contingency Funding Plan by tailoring their Early Warning Indicators to include metrics oriented toward private equity and venture capital.

On December 1, 2021, SVB responded to the November 2, 2021, supervisory letter and provided a Management Action Plan. SVB took numerous steps to address MRIA #1. Actions taken included hiring consulting firm Ernst and Young to provide an independent risk management assessment and hiring a new head of liquidity risk management.

On December 29, 2021, SVB submitted a follow-up letter to demonstrate that it believed its actions satisfied the requirements to update its project plan and gap assessment and ensure sufficient staffing and resources were allocated to execute the plan by the December 31, 2021, due date. While a new plan and staffing were in place, MRIA #1 would remain open until regulators could determine whether the plan and the staffing were effective. The risk management plans and the staffing to implement them required testing over a longer period of time to identify their response to changes in the market.

On March 31, 2022, SVB requested and was granted an extension to October 31, 2022, to fully remediate MRIA #2. According to a May 4, 2022, letter from the FRBSF to SVB, the FRBSF did not object to the extension, partly due to SVB's management taking prompt action and submitting materials that showed progress towards remediation.

On August 17, 2022, the DFPI and the FRBSF issued a letter detailing supervisory ratings for the 2021 examination period. The letter, among other topics, addressed SVB's failure to fully remediate the liquidity issues, stating that SVB's liquidity was assessed as "conditionally meets expectations" due in part to the outstanding November 2, 2021, MRIAs and MRAs. Furthermore, SVB was notified that an MOU would be initiated reflecting the outstanding Liquidity Target Examination MRIAs.

Through the continuous monitoring process, SVB kept the FRBSF and the DFPI apprised of its continued efforts to remediate the MRIAs and MRAs from November 1, 2021, and discussed in the August 12, 2022, letter. In internal discussions leading up to the 2022 CAMELS ratings, SVB's progress toward remediating the MRAs and MRIAs was described as "positive" by the FRBSF.

3. SVB's liquidity position

The 2021 Target liquidity exam focused on SVB's liquidity management. SVB's liquidity positions were examined independently by the FRBSF due to its expertise and available resources. Based on the information the FRBSF shared from its examinations, the DFPI assessed that SVB's liquidity positions were considered adequate and posed no short-term risk. A Horizontal Liquidity Review comparing SVB to other similar institutions was scheduled to be conducted Q1 2023 by the FRBSF but was not completed due to SVB's closure in March 2023.

In Q1 2023, SVB had sufficient liquidity to cover its short-term needs. However, SVB's modeling and forecasting showed potential issues at the three-month mark. This issue was identified by regulators through stress-testing requirements they had placed on SVB.

Although the data reviewed by the DFPI showed that the cash burn rate of SVB's depositors was more concerning in Q1 2023, SVB had ample liquidity to address its regular deposit outflows. Prior to its collapse, SVB had sufficient liquidity to handle a $16 billion single day outflow. Put in context, the largest short period outflow ever seen in a U.S. bank failure was Washington Mutual's collapse in 2008, which involved approximately $16.7 billion over 10 days.

Under typical liquidity stress testing scenarios, SVB's liquidity position would have enabled it to survive. However, on March 9, 2023, SVB experienced a $42 billion single day outflow and was unable to survive. One reason the failure of SVB was different from that of Washington Mutual is the differences in technological processes between then and now. In 2008, the utilization of mobile devices to withdraw funds from banking applications, social media, and work-based communication platforms had yet to materialize. The advance of that technology contributed to a digital bank run on SVB that could not have occurred in any prior era of banking.

4. Supervisory response related to interest rate risk

In November 2022, the FRBSF, which was in the lead due to its expertise in this area, alongside the DFPI found that SVB's Interest Rate Risk (IRR) simulations were not reliable and required improvements.[52] Specifically, earnings, changes in Net Interest Income (the difference between the income from interest-bearing assets and expenses from its interest-bearing liabilities), and Net Interest Margin (the difference between the Net Interest Income and outgoing interest payments to depositors) were inconsistent with SVB's projections and IRR simulations, calling into question the reliability of SVB's IRR modeling and the effectiveness of its risk management practice. SVB's model predicted that its assets would generate more earnings in a rising interest rate environment, which turned out to be the opposite of what occurred. The bank examiners observed that these unreliable results were caused by flawed assumptions in SVB's model.

In a supervisory letter dated November 15, 2022, the FRBSF and the DFPI issued an MRA to SVB regarding these deficiencies and required SVB to submit a written response within 45 calendar days. In addition, SVB was required to perform other specified actions related to IRR by June 30, 2023. These findings resulted in the DFPI and the FRBSF determining to issue a downgrade to the Sensitivity to Market Risk component of CAMELS to 3 -Less than Satisfactory from 2 - Satisfactory. The DFPI and the FRBSF planned to release the 2022 CAMELS ratings in Q1 2023 with the LFI ratings.[53]

[52]A bank must have the ability to identify, monitor, manage and control its market risk, which typically relates to exposures to changes in interest rates. Interest rate risk is the risk of reduction in, or loss of, capital and earnings caused by adverse changes in market interest rates. The impact of interest rate risk on earnings is significant because reduced earnings, or losses, have an impact on the adequacy of a bank's liquidity and capital. These safeguards are typically monitored in the safety and soundness exams in which bank examiners review a bank's risk assumptions, financial condition, operational controls, and compliance with banking regulations.

[53]CAMELS ratings for the 2022 supervisory cycle were never formally issued. The DFPI and the FRBSF planned to release the CAMELS ratings along with the LFI ratings in Q1 2023 to avoid redundancy, which did not occur, due to the demise of SVB.

On December 22, 2022, SVB submitted its response, which included a detailed Management Action Plan to remediate the identified IRR MRA. SVB recognized and accepted the regulators' assessment that its Interest Rate Risk simulations were not reliable and required improvements, as evidenced by inconsistencies noted between internal projections and actual results during periods of material interest rate changes.

Although SVB had begun to correct the IRR-related deficiencies by devising a series of key actions, deliverables, and milestones under its MAP, SVB did not complete them before its failure in March 2023.

5. Supervisory response related to other issues

In addition to the supervisory responses discussed above, the DFPI and the FRBSF jointly participated in supervisory activities relating to the Bank Secrecy Act and Anti-Money Laundering Compliance, Trust and Fiduciary Services, Credit Risk Management, and Information Technology. The examinations and supervisory letters related to these examinations likely did not play a direct or material role in SVB's failure.

6. SVB's removal of its Chief Risk Officer

SVB employed a Chief Risk Officer (CRO) for almost six years from 2017 to April 2022. The DFPI was notified in February 2022 that SVB intended to terminate the CRO's employment in April, but the Department was not informed that they remained at SVB in a transition role until October.

The DFPI does not know the circumstances that led to their termination or continued employment in a transition role. As discussed above, issues with risk management and the board's failure to hold senior management accountable for executing sound risk management plans were the basis for MRIAs, MRAs, and ratings downgrades. The DFPI and the FRBSF were kept apprised of SVB's progress on filling the position and, in the interim, SVB established an office of the CRO to perform the CRO function by committee. SVB's new CRO was hired in December 2022 and remained in that position until SVB's failure.

E. Actions preceding the run on SVB

On March 8, 2023, SVB issued a press release announcing that it sold $21 billion worth of securities at a $1.8 billion loss and the holding company planned to raise $2.25 billion by selling a mix of common and preferred stock.[54] Banks routinely monitor their investment portfolios and make adjustments, including sales of their investments, as needed. These adjustments are business decisions and determined by criteria established in a bank's internal policies.

As part of the examination function, the DFPI reviews the adequacy of the policies and the bank's adherence to its own policies. However, banks, including SVB, do not need prior approval to sell investments, absent a directive otherwise, such as an order, which was not the case for SVB. Similarly, SVB's holding company did not need DFPI approval for its proposed stock offering. Not only was that a business decision, but the California Banking Law regulates only the sale of securities offered by a bank itself, not the sale of securities by a holding company. State or federal securities laws govern sales by holding companies. In this instance, federal securities laws governed and SVB Financial Group (SVB's holding company) filed a Form 8-K with the Securities and Exchange Commission (SEC) on March 8, 2023, announcing the proposed public offering of common and preferred stock.[55]

The DFPI first became aware of the sale and the stock offering from SVB's public press release. The next day, March 9, 2023, SVB received withdrawal requests for approximately 25 percent of its total deposits. On March 10, 2023, the DFPI closed SVB.

1. Purchase of bonds and mortgage-backed securities

Senior officers and the board are responsible for the overall management of a bank's investment portfolio, and the purchase or sale of individual securities are considered business decisions.[56] During examinations, bank regulators evaluate the existing and potential risk associated with a bank's investment portfolio, including risks that may affect the value or marketability of investments, and the ability of management to identify and manage those risks. The DFPI and the FRBSF were not provided with, and were not required

[54]*SVB Press Release, SVB Financial Group Announces Proposed Offerings of Common Stock and Mandatory Convertible Preferred Stock*, SVB (Mar. 8, 2023).

[55]*SVB Financial Group Announces Proposed Offerings of Common Stock and Mandatory Convertible Preferred Stock*, U.S. SEC (last visited May 3, 2023).

[56]California Financial Code section 1510 limits the amount a bank can invest in the securities issued by a person to 15 percent of the sum of shareholders' equity, allowance for loan and lease losses, capital notes and debentures of a bank. However, this restriction does not apply to investments in U.S. government and U.S. agency bonds and obligations such as those purchased by SVB.

to be provided with, specific data showing the securities purchased by SVB and when the securities were purchased. The graph below was compiled using data obtained by the DFPI staff in their efforts to evaluate the events that led to SVB's failure.

Figure 4 below illustrates the total amount of bonds purchased by SVB against the federal funds rates. The data suggests that most of the U.S. Treasury bonds and Agency mortgage-backed securities were purchased during a period of low federal funds rates.[57]

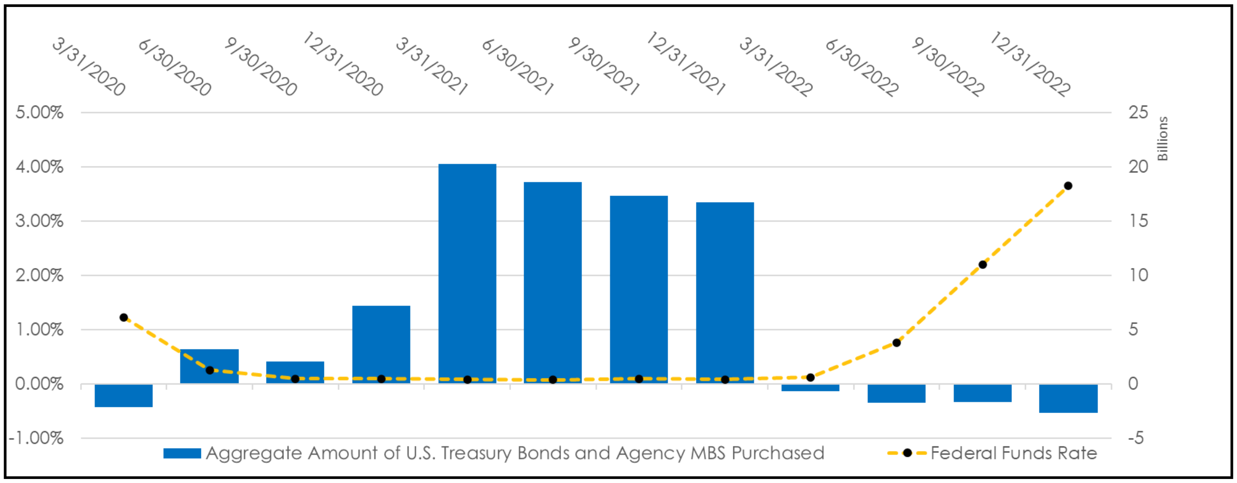

Figure 4: SVB's U.S. Treasury and Agency Mortgage Back Securities Growth from 2019 to 2022

2. Sale of hedges

DFPI bank examiners did not review the sale of the interest rate hedges for the Available for Sale Securities (AFS) securities. In preparing this review, the DFPI was unable to pinpoint the date that SVB's AFS hedges were purchased and sold.

For the 2022 supervisory cycle, the FRBSF was responsible for the evaluation of SVB's hedging activities due to its expertise in reviewing market risk and conditions. SVB's hedging activities were evaluated under the "Sensitivity to Market Risk" component of CAMELS.

[57] The DFPI conducted an analysis of SVB's securities growth with a focus of its AFS portfolio as a retrospective effort. Figure 4 displays a graph showing the net securities purchase from March 2020 to December 2022. The bar in the graph represents an aggregate of three types of securities, including U.S. Treasury bonds, pass-through Residential Mortgage-Backed Securities (RMBS), and other Commercial Mortgage-Backed Securities (CMBS) issued or guaranteed by Government-Sponsored Enterprise (GSE) securities. The data were obtained from publicly available FFIEC quarterly call reports. The federal fund rates data used in the figure were obtained from the FDIC extranet application, "IRRSA."

In its April 28, 2023 report on SVB, the Federal Reserve noted: "In April 2022, SVBFG made counterintuitive modeling assumptions about the duration of deposits to address the limit breach rather than managing the actual risk."[58] Further, "over the same period, SVBFG also removed interest rate hedges that would have protected against rising interest rates."[59]

As discussed in the Federal Reserve's report:

- "In early 2022, at a time when rates were rising rapidly, SVBFG became increasingly concerned with decreasing [Net Interest Income (NNI)] if rates were to decrease, rather than with the impact of rates continuing to increase. This was based on observed yield curve inversion that could be an indication of an impending recession and a subsequent decrease in rates. The bank began positioning its balance sheet to protect NII against falling interest rates but not rising ones. SVBFG was very focused on NII and profits and the NII sensitivity metrics were showing that NII was exposed to falling rates. Rising rates were seen as an opportunity to take profits on hedges, and the bank began a strategy to remove hedges in March 2022, which were designed to protect NII in rising rate scenarios but also would have served to constrain NII if rates were to decrease. Protecting profitability was the focus."[60]

- "This strategy of removing hedges extended the duration of the securities portfolio and caused the [Economic Value of Equity (EVE)] metric to worsen throughout 2022. . . . SVBFG was expecting the deposit duration lengthening[61] would be an offset to the increasing investment portfolio duration,[62] but this only provided temporary

[58] *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, Board of Governors of the Federal Reserve System 3 (Apr. 28, 2023).
[59] *Id*.
[60] *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, Board of Governors of the Federal Reserve System 63 (Apr. 28, 2023).
[61] "In April 2022, SVBFG made a poorly supported change in assumption to increase the duration of its deposits based on a deposit study conducted by a consultant and in-house analysis." *(Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank,* Board of Governors of the Federal Reserve System 63 (Apr. 28, 2023)).
[62] Duration is a measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates. In general, the higher the duration, the more a bond's price will drop as interest rates rise (and the greater the interest rate risk). *(Duration Definition and Its Use in Fixed Income Investing,* Investopedia (Apr. 6, 2023)).

relief from the EVE metric breaching limits. Instead, rates rose, investment portfolio duration lengthened, deposits shifted from non-interest bearing to interest bearing, and liability duration fell. This mismatch of durations on the asset and liability sides of the balance sheet caused the EVE metric to worsen and breach SVBFG's EVE limits once again. Importantly, there was no evidence that management made the full board aware that the EVE metric was breaching limits for years."[63]

3. Sale of bonds

SVB's securities portfolio was experiencing an increase in unrealized losses as the Federal Reserve increased the federal funds effective rate seven times in 2022. As SVB anticipated additional interest rate increases by the Federal Reserve, it aimed to cap its losses by selling bonds.[64] As noted above, SVB was not required to notify or seek the DFPI's approval for the bond sales.

In the third quarter of 2022, SVB's estimated unrealized losses within the AFS portfolio totaled $1.9 billion.[65] The DFPI and the FRBSF were aware of the amount of estimated unrealized loss in SVB's AFS portfolio and Held-to-Maturity (HTM) portfolios prior to SVB's collapse.[66]

SVB previewed to the FRBSF and the DFPI that it foresaw the need for some kind of balance sheet restructuring, but SVB did not say specifically when this would occur or how it would be implemented (e.g., through government bond sales, securities sales, or a capital raise).

[63] *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, Board of Governors of the Federal Reserve System 63-64 (Apr. 28, 2023).

[64] For context, when the federal funds rates increase, the value of existing bonds with lower rates decreases. This is because the rate on the existing bond is lower than the interest rate on newly issued bonds, and thus investors at current market are willing to pay less for the lower-interest bonds.

[65] *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, Board of Governors of the Federal Reserve System 89 (Apr. 28, 2023).

[66] A bank's securities portfolio should consist of assets that are classified into three categories, namely, held-to-maturity (HTM), available-for-sale (AFS), and held-for-trading. These categories determine the appropriate accounting treatment for each asset. A security is categorized as HTM when it is purchased with intent and ability to hold the security until maturity. A security is categorized as AFS if bank management intends to sell the security at some point during an indefinite future period.

The DFPI did not become aware of the bank's sale of bonds until SVB's press release on March 8, 2023. SVB was not required to inform or seek approval from regulators about the holding company's plan to raise capital.

As this sale was standard practice, examiners would likely have not objected if informed, but any capital raise would have been discussed extensively with the bank and reviewed by examiners in the next target examination. In other words, although the sale of securities and the holding company's plan to raise capital did not require regulatory approval from the DFPI, examiners would have thoroughly evaluated the securities sales and capital raise in the context of the bank's overall capital planning, asset-liability management, and risk management framework were it not for the bank's failure two days later.

4. Stock offering

SVBFG's plan to raise capital by selling stock was a permissible and ordinary activity that other banks' holding companies have often undertaken. Therefore, SVBFG was not required to notify or seek the DFPI's approval of its plan to raise $2.25 billion by selling a mix of common and preferred stock. The California Banking Law requires a bank organized under California law to apply for and obtain a stock permit prior to offering or selling its securities.[67] That law does not apply to a bank's holding company because other securities laws cover those transactions appropriately, and the Federal Reserve has supervisory authority over the activities of holding companies.

F. Run on SVB and role of digital technology

The run on deposits experienced by SVB on March 9, 2023, was an extraordinary event in which fears about SVB's solvency resulted in a large number of uninsured bank depositors unexpectedly withdrawing their funds over the course of approximately eight hours.[68] State and federal bank supervision is predicated on the assumption that depositors will not withdraw their deposits at the same time. However, within the span of eight hours on March 9, SVB received deposit withdrawal requests of approximately $42 billion,[69] which at the time, represented nearly 25 percent of SVB's approximately $166 billion in total deposits.

[67]Cal. Fin. Code § 1201.

[68]See *SVB, Signature Racked up Some High rates of Uninsured Deposits*, S&P Global Market Intelligence (Mar. 14, 2023) (93.8 percent of SVB's total deposits were uninsured as of the end of 2022).

[69]Approximately $36 billion was withdrawn with approximately $6 billion left in queue for processing when the bank was closed.

To put this into perspective, the largest U.S. bank run prior to SVB occurred during the 2008 financial crisis at Washington Mutual.[70] At the time, bank regulators considered a loss of around two percent of deposits in a day to represent a stress scenario.[71] At the peak of the bank run at Washington Mutual, it lost $2.8 billion in deposits in a single day, which is approximately 15 times smaller than the $42 billion withdrawn from SVB.[72]

While underlying factors inside the bank, including the high level of uninsured deposits largely concentrated in one industry, made SVB susceptible to a bank run, both social media and digital banking technology played a role in increasing the unprecedented volume and accelerating speed of the deposit outflows experienced by SVB.[73]

Following the bank's announcement on March 8, 2023, regarding its $1.8 billion loss on the sale of securities and the holding company's plan to raise capital, there was a surge in messages on social media as well as private message boards and apps about a bank run, with many of SVB's venture capital customers suggesting companies withdraw their deposits from SVB.[74]

Furthermore, digital banking advancements such as real-time self-service money management tools allowed the movement of funds at a faster speed than ever before.[75]

[70]See Johnathan D. Rose, *Old-Fashioned Deposit Runs*, Board of Governors of the Federal Reserve, 30 (Nov. 18, 2015) ($18.7 billion, representing 10.1 percent of deposits, flowed out of Washington Mutual over a 16 day period).

[71]*Id*.

[72]*Remarks by Vice Chairman Travis Hill at the Bipartisan Policy Center on the Recent Bank Failures and the Path Ahead*, FDIC (Apr. 12, 2023).

[73]See Anthony J. Cookson, Corbin Fox, Javier Gil-Bazo, Juan Felipe Imbet & Christopher Schiller, *Social Media as a Bank Run Catalyst*, SSRN (Apr. 18, 2023) (employing comprehensive Twitter data in the context of the SVB collapse to conclude that preexisting exposure to social media predicts bank stock market losses in the run period even after controlling for bank characteristics related to run risk (i.e., mark-to-market losses and uninsured deposits), and that social media amplifies these bank run risk factors). See also *Statement by Michael S. Barr, Vice Chair of Supervision, Board of Governors of the Federal Reserve System, Before the Committee on Banking, Housing, and Urban Affairs*, U.S. Senate 4 (Mar. 28, 2023); *Statement of Martin J. Gruenberg, Chairman of the Federal Deposit Insurance Corporation Before the Committee on Banking, Housing, and Urban Affairs*, U.S. Senate 6 (Mar. 28, 2023).

[74]*Regulators Blame Social Media for SVB's Rapid Collapse: "Complete Game Changer*," Yahoo Finance (Mar. 28, 2023); See also *Bank Runs Used to be Slow. The Digital Era Sped Them Up*, Associated Press (Mar. 15, 2023).

[75]*Regulators Blame Social Media for SVB's Rapid Collapse: "Complete Game Changer,"* Yahoo Finance (Mar. 28, 2023).

The first fully functional banking app was launched in 2011, years after the last financial crisis. Given that the largest liquidity failures of the last financial crisis took weeks[76] and SVB's liquidity failure occurred in one day, the DFPI believes that social media and digital banking technology pose new systemic risks to financial institutions.[77] As FDIC Chairman Martin Gruenberg testified to the Senate Committee on Banking, Housing, and Urban Affairs, "One clear takeaway from recent events is that heavy reliance on uninsured deposits creates liquidity risks that are extremely difficult to manage, particularly in today's environment where money can flow out of institutions with incredible speed in response to news amplified through social media channels."[78]

G. Closure of SVB

As deposit withdrawals accelerated from the morning into the afternoon of March 9, the DFPI Banking Program was notified by the bank of the run on deposits, likely funding shortfalls, and the potential inability to meet the demands of depositors. SVB's attempts to pledge collateral with either the Federal Home Loan Bank (FHLB) or the Federal Reserve in time to access additional lines of credit that day were unsuccessful. By the close of business, the bank had a negative cash balance of $958 million and was insolvent.

The DFPI coordinated with federal regulators throughout Thursday evening and into the night and early morning of the following day. At 8:39 a.m. Pacific Time on Friday, March 10, 2023, in coordination with the FDIC and the Federal Reserve, the DFPI took possession of SVB by issuing an Order Taking Possession of Property and Business pursuant to California Financial Code section 592. The DFPI simultaneously issued an Order of Liquidation pursuant to California Financial Code section 603 and appointed the FDIC as receiver by issuing a Tender of Appointment pursuant to California Financial Code section 620. Copies of the orders were provided to the bank's Chief Executive Officer. At this point, the Department relinquished jurisdiction over the institution.

[76]Johnathan D. Rose, *Old-Fashioned Deposit Runs*, Board of Governors of the Federal Reserve 30 (Nov. 18, 2015).

[77]*Regulators Blame Social Media for SVB's Rapid Collapse: "Complete Game Changer*," Yahoo Finance (Mar. 28, 2023); See also Anthony J. Cookson, Corbin Fox, Javier Gil-Bazo, Juan Felipe Imbet & Christopher Schiller, *Social Media as a Bank Run Catalyst*, SSRN (Apr. 18, 2023).

[78]*Regulators Blame Social Media for SVB's Rapid Collapse: "Complete Game Changer,"* Yahoo Finance (Mar. 28, 2023).

H. Events following SVB's closure

By mid-morning Friday, March 10, 2023, the DFPI no longer played a decision-making role with respect to SVB, and the FDIC unilaterally determined the necessary steps to protect SVB's depositors. The DFPI's understanding of events that took place after the Order of Liquidation and removal of the Certificate of Authority is based on public statements made by the FDIC. The FDIC transferred all SVB's insured deposits to Deposit Insurance National Bank of Santa Clara, created by the FDIC to temporarily provide insured depositors with continued access to their funds. On Sunday, March 12, 2023, after a systemic risk determination with the United States Treasury Department and the Federal Reserve System as required by law, the FDIC chartered the Silicon Valley Bridge Bank, N.A. and transferred all deposits and substantially all assets of SVB to the Bridge Bank. The DFPI played no role in the determination of the use of the systemic risk determination.

The Silicon Valley Bridge Bank was created to provide the FDIC time to stabilize SVB and provide prospective purchasers of the bank time to determine and submit appropriate offers. The SVB board and the most senior executives were removed. The Silicon Valley Bridge Bank opened for normal business activities on Monday, March 13, 2023.

Bridge banks are temporary, and the FDIC's stated goal was to return SVB to private control as quickly as possible. Potential bidders were notified on March 11, 2023, and three bids were received on March 12, 2023. The FDIC was responsible for reviewing bids and the DFPI does not play any role in reviewing such bids. The FDIC kept the bidding open until March 24, 2023, and reviewed all bids on March 25, 2023.

On March 26, 2023, First-Citizens Bank & Trust Company, a North Carolina state-chartered, non-member bank (First Citizens), was approved as the successful bidder to acquire Silicon Valley Bridge Bank.

On March 27, 2023, the former Silicon Valley Bridge Bank reopened as First Citizens.

I. Timeline of significant events

Table 4 below is a timeline of significant events related to the supervision of SVB from November 2020 to March 2023.

Table 4: Timeline of SVB Events

Date	Event	
Nov. 30, 2020	SVB Joint IT Part 2 Target Review. IT components Management, Support & Delivery, and the Composite rating were all downgraded to 3, less than satisfactory. • Findings communicated to management Jan. 29, 2021. • Supervisory letter issued Feb. 11, 2021. • Formal response from SVB management Mar. 12, 2021.	A
Nov. 30, 2020	Joint Roll-Up Examination. Focused on the Development and Acquisition and IT Audit Components, which were ultimately rated satisfactory. Follow-up on remediation of outstanding MRIAs and MRAs. • Findings communicated to management Feb. 4, 2021. • Full report transmitted May 3, 2021. • Formal response, along with detailed action plans, from SVB received June 2, 2021.	B
Feb. 2021	SVB transitioned into the Fed's Large Banking Organization (LBO) portfolio and was subjected to the "Large Financial Institution" Rating System.	C
Feb. 11, 2021	Joint supervisory letter issued regarding Nov. 30, 2020, SVB Joint IT Part 2 Target Review. (See A)	D
Mar. 12, 2021	Formal response from SVB bank management regarding Nov. 30, 2020, SVB Joint IT Part 2 Target Review. (See A)	E
Apr. 26, 2021	• SVB Joint IT Part 1 Target Review. Review focused on the Development and Acquisition and IT Audit Components, which were ultimately rated satisfactory. No new MRIAs or MRA issued as a result of this review. 3 MRAs identified at the November 2020 IT Target were closed while 4 MRIAs and MRAs remained open.Findings communicated to management June 11, 2021. • Supervisory letter issued Aug. 6, 2021. • No formal response required.	F
May 3, 2021	Nov. 30, 2020, Joint Roll-Up Examination report transmitted to SVB. (See B)	G

May 24, 2021	SVB Joint Asset Quality Target Review. Review focused on asset quality and credit risk management practices and evaluated management action plans developed in response to two MRAs issued in the 2020 full-scope examination report that remain open. Two new MRAs issued regarding loan risk rating granularity and governance for lending procedures. • Findings communicated to management Aug. 10, 2021. • Supervisory letter issued Aug. 17, 2021. • Formal response, along with detailed action plans, from SVB received Sept 16, 2021.	H
June 2, 2021	Formal response, along with detailed action plans, from SVB regarding Nov. 30, 2020, Joint Roll-Up Examination report. (See B)	I
Aug. 6, 2021	Supervisory letter regarding Apr. 26, 2021, SVB Joint IT Part 1 Target Review. (See F)	J
Aug.16-17, 2021	SVBFG Liquidity Target Review conducted independently by the FRBSF. This review resulted in two MRIAs and four MRAs regarding liquidity risk management practices which would ultimately impact the Liquidity rating for SVB.	K
Aug. 17. 2021	Supervisory letter issued regarding May 24, 2021, SVB Joint Asset Quality Target Review. (See H)	L
Sept. 7, 2021	CAMELS Exam and LFI Ratings Examination conducted, but ratings not formally issued.	M
Sept. 16, 2021	Formal response, along with detailed action plans, from SVB regarding May 24, 2021, SVB Joint Asset Quality Target Review. (See H)	N
Oct. 12, 2021	SVB Joint IT Part 2 Target Review. Review evaluated and issued ratings for the IT components of Management and Support and Delivery, which were downgraded to 3-Less than Satisfactory along with the IT composite rating. The review also evaluated progress on outstanding four MRIAs and five MRAs. • Findings communicated to management Jan. 27, 2022. • Supervisory letter issued Feb. 18, 2022. • Formal response, along with detailed action plans, from SVB received Mar. 18, 2022.	O
Nov. 2, 2021	Supervisory Letter - MRIAs and MRAs issued based on findings in the August 2021 Liquidity Target Examination. (See K)	P

Nov. 16, 2021	Internal supervisory discussions between DFPI and FRBSF determine that CAMELS ratings from the September examination should not be formally issued until first half of 2022 exam cycle to provide more time to perform analysis of underlying issues.	Q
Nov. 2021	The FRBSF informally raised concerns with SVB that it was not ready to operate under the LFBO program and asked what SVB was doing to slow its growth.	R
Feb. 18, 2022	Supervisory letter regarding Oct. 12, 2021, SVB IT Part 2 Target Review. (See O)	S
Mar. 18, 2022	Formal response, along with detailed action plans, from SVB regarding Oct. 12, 2021, SVB IT Part 2 Target Review. (See O)	T
Aug. 2022	Total DFPI exam hours on SVB increased from 3,000 to 6,000 for 2023.	U
May 31, 2022	Supervisory Letter - FRBSF and DFPI examiners found that SVB's governance and risk management practices were below supervisory expectations.	V
Aug. 17, 2022	Supervisory Letter - CAMELS and LFI ratings were issued for the 2021 exam cycle. Supervisory letter notes that MRIAs and MRAs from the November 2021 letter remain open and SVB is notified that an MOU is being initiated.	W
Oct. 2022	DFPI and FRBSF examiners noted concerns regarding the amount of unrealized losses for SVB's available for sale securities (AFS). As of September 30, 2022, the unrealized loss in AFS was $2.8 billion.	X
Oct. 2022	As SVB continued to address issues in their predictive models, SVB informed FRBSF that it intended to reposition themselves to address possible liquidity needs appearing in their new predictive models.	Y
Nov. 15, 2022	Supervisory Letter - SVB's Interest Rate Risk assumptions for its forecast model was unreliable.	Z
Dec. 22, 2022	SVB filed an action plan in response to the November 15, 2022, supervisory letter.	AA
Late 2022	SVB's assets eclipsed the $200 billion threshold.	BB
Mar. 8, 2023	SVB announces in an SEC 8-K filing that it sold a bond portfolio at a $1.8 billion loss and was seeking to raise $2.25 billion in capital.	CC
Mar. 9, 2023	Commissioner Hewlett and DFPI staff notified that SVB failed to make its cash letter payment and was insolvent.	DD

Mar. 10, 2023	Despite attempts overnight to find liquidity, SVB remained insolvent. DFPI took possession of SVB and appointed FDIC as receiver in the early morning. FDIC creates Silicon Valley Bridge Bank.	EE
Mar. 12, 2023	Federal Reserve, Treasury Department, and FDIC announced that depositors will have access to all deposits starting Monday, March 13.	FF
Mar. 26, 2023	FDIC entered into a purchase and assumption agreement for all deposits and loans of Silicon Valley Bridge Bank, National Association, by First-Citizens Bank & Trust Company, Raleigh, North Carolina.	GG

Key Findings

The DFPI has reviewed and will continue to review the events surrounding SVB's failure in order to better understand how the DFPI can protect the public from future economic destabilization.

Even with the benefit of hindsight, it is difficult to identify any one action or set of actions that regulators could have taken that would have been guaranteed to prevent SVB's collapse. As the Federal Reserve noted in its SVB report in evaluating the bank's failure, [it is a challenge to determine] "how much weight to put on the decisions of SVBFG's board and management, the design of the Federal Reserve's supervision and regulation, the execution of that supervision and regulation, and the specific combination of environmental factors that materialized in 2022 and early 2023. This type of causal decomposition is quite difficult from a single event."[79]

Despite this difficulty, the DFPI has made the following key findings, which it will leverage to improve its internal processes and to better assess and confront banking challenges in the digital age.

[79]*Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank*, Board of Governors of the Federal Reserve System 15 (Apr. 28, 2023).

Finding 1: Speed of remediation

Prior to SVB's collapse, the DFPI and the FRBSF identified deficiencies in SVB's risk management, liquidity, and interest rate risk simulations and had initiated supervisory actions in these areas. Although SVB had initiated remediation efforts, the regulators did not take adequate measures to ensure SVB did so with enough speed.

The DFPI has committed to undertaking supervisory enhancements that will reduce the chances of future bank failures. (See section V. below.)

In particular, the DFPI will coordinate with federal regulators to develop stronger and more effective systems to remediate deficiencies promptly. (See section V.B.1.) The DFPI will add additional levels of supervisory review to elevate issues identified in examinations and expedite action as appropriate. (See section V.B.4.)

Finding 2: Rapid growth and DFPI's role in supervision

SVB's unusually rapid growth was not sufficiently accounted for in risk assessments. In particular, SVB did not promptly remediate deficiencies identified in joint supervisory letters. The DFPI will improve its processes to escalate concerns, including potential allocation of additional staff to support joint supervision of larger banks.

The DFPI has committed to revising its supervisory approach to escalate issues with its depositories and address supervisor staffing deficiencies more quickly. (See section V.) The DFPI will review its internal staffing processes to ensure that additional staff is assigned in a timely manner for banks with assets of more than $50 billion, commensurate with accelerated growth or increased risk profile for an institution. The DFPI will continue to develop large bank supervisory plans in coordination with federal regulators for all banks with assets of more than $10 billion, increasing focus on timelines for corrective action (both ensuring timelines are appropriate and that banks adhere to them), and will allocate banking staff examination hours based on the risks identified in these supervisory plans. (See section V.B.2.)

Finding 3: Uninsured deposits

SVB's high level of uninsured deposits contributed to the run on SVB. The DFPI will increase its focus on banks' uninsured deposit levels, in addition to continuing to monitor key indicators such as banks' concentration of uninsured deposits by industry. (See section V.B.3.)

Finding 4: Digital technology and social media

The run on SVB accelerated at a rapid pace, due, in part, to digital technology and social media.

The DFPI will continue to evaluate these risks through its exam processes. Going forward, the DFPI will require banks to consider their susceptibility to real-time deposit withdrawals and reputational risk posed by viral social media posts in general, or from short sellers in publicly traded scenarios. (See section V.B.6.)

Next steps: DFPI improvements underway

The events involving SVB have underscored the need for the DFPI to evaluate and refine its monitoring and examination processes for banks and other financial institutions. These efforts are ongoing.

A. Immediate enhanced monitoring to prevent further failures

Immediately following SVB's closure, DFPI staff conducted a review of DFPI-chartered banks and credit unions to identify any other institutions that could face liquidity failures or other severe risks. The DFPI identified certain metrics that could be indicators of risk, including a high composite CAMELS rating, a high CAMELS liquidity rating, a high percentage of uninsured deposits or high volume of uninsured deposits, and high levels of unrealized securities losses.

Based on these and other factors, the DFPI identified institutions requiring increased monitoring and has already implemented more frequent monitoring for them.[80]

The monitoring efforts range from gathering reports on an hourly, daily, weekly, or monthly basis, to monitoring through the Department's regular offsite framework and examination process. DFPI banking and legal staff provide regular briefings on these developments to

[80]This report will not discuss actions taken as to individual active financial institutions since such particulars are confidential supervisory information not subject to disclosure.

the Commissioner and the DFPI's Senior Management.

The Department has been coordinating more closely with its federal partners and with these financial institutions to ensure that the institutions take corrective actions as appropriate.

B. Supervisory enhancements in progress

In addition to the immediate enhanced monitoring the DFPI has undertaken, the DFPI is in the process of implementing further enhancements to its examination processes, particularly for its largest banks.

Globally, the DFPI shares the goals set forth by the Federal Reserve in its April 28, 2023 report.[81] The DFPI recognizes the need to engage with its federal regulatory partners—as well as with other state and federal policymakers and stakeholders—regarding how to best effectuate these objectives and balance competing priorities to reduce the risk of future bank failures.

In addition to continued engagement with federal and state partners, DFPI has identified concrete steps that it can undertake immediately using its existing resources and authority.

1. Coordinate with federal regulators to develop stronger and more effective systems to promptly remediate deficiencies

The DFPI will engage with its federal regulatory partners to discuss the speed and effectiveness of the current regulatory framework and to identify where regulators can make improvements to achieve timely remediation of deficiencies by supervised institutions.

In its April 28, 2023, report on SVB, the Federal Reserve suggested, "A simpler and stronger oversight program and tailoring framework could be both more efficient and more effective."[82] Specifically, the Federal Reserve proposed that supervisors pursue "greater clarity on portfolio expectations, well-defined internal governance over ratings, an explicit

[81]The Federal Reserve identified four broad areas to consider in improving supervisory oversight: (1) enhance risk identification, (2) promote resilience, (3) change supervisor behavior, and (4) strengthen processes. Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank, Board of Governors of the Federal Reserve System 96 (Apr. 28, 2023).

[82]*Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank,* Board of Governors of the Federal Reserve System 98 (Apr. 28, 2023).

supervisory plan for firms transitioning between portfolios, and reduced complexity of the regulatory structure" and that supervisors "systematically elevate focus on long-dated, material issues to promote more rapid remediation."[83]

The DFPI believes these suggestions warrant careful consideration and will continue to work with its federal partners on how to implement changes that will best ensure strong supervisory processes and swift remediation of issues.

2. Review supervisory plans and staffing processes for large banks with assets above $10 billion, with focus on banks with assets above $50 billion

The DFPI will mandate completion of large bank supervisory plans for all banks with over $10 billion in total assets in coordination with federal regulators as part of its examination process.[84]

These supervisory plans will be used to identify risks and prioritize which areas to reallocate existing banking staff examination hours and personnel. Allocations will be based on bank size, risk, and complexity as determined in the supervisory plan.

This step will enhance the robust discussions during DFPI's collaborations with the primary federal regulator during the exam cycle planning stage.

Such plans will allow the Department to allocate resources in a way that both equips it to be a strong partner to its federal counterparts and allows it to take independent action where appropriate, thus maximizing the benefits of the dual regulation system.

To best effectuate this plan, the DFPI will review its internal staffing processes to ensure that additional staff is assigned in a timely manner for banks with assets above $50 billion commensurate with accelerated institution growth or increased risk profile.

The DFPI will make this change by reallocating existing resources and will continue to evaluate future resource needs through the state budget process.

[83]*Id.*

[84]In certain situations, a state banking regulator such as the DFPI may be more nimble or responsive than a federal regulator. State banking regulators can also offer a unique "local" perspective because they may be more familiar with the regional environment, economy, and other financial issues that impact the state.

3. Heightened management of uninsured deposits for large banks

The DFPI will increase its focus on banks' uninsured deposit levels, in addition to continuing to monitor key indicators such as banks' concentration of uninsured deposits by industry. DFPI will review requirements for California-chartered banks and take steps to require these banks to provide the DFPI with a plan for more proactive management of uninsured deposits, and will make them subject to enhanced testing, in closer collaboration with the DFPI's federal partners.

In particular, for banks with assets over $50 billion, the DFPI will review the circumstances in which these banks must provide a written assessment evaluating their management of uninsured deposits, including their historic and projected levels, whether these deposits are concentrated in a specific depositor or industry group, and the bank's plan to mitigate any liquidity risk associated with such concentration.

The DFPI will also update its training procedures and exam manuals to emphasize risks from uninsured deposits.

4. Add an additional level of supervisory review for exam reports prior to issuance to elevate issues identified in the exam and expedite action as needed

The DFPI will add another level of supervisory review to exam reports before they are issued. Supervisors will assess the exam reports to ensure that the examiner has identified risks appropriately and that concerns are escalated if necessary. This will allow the DFPI to ensure it is identifying as many risks as possible and will help to ensure timely remediation of concerns. Additionally, this step will help state examiners in holding bank management to swifter action.

5. Implement changes to Early Warning System Module

The DFPI uses an internal program to perform offsite monitoring of banking licensees which are in between examinations. This program includes an Early Warning System module that uses quarterly financial data to trigger red flags or Early Warning Indicators for analysis and follow up by the DFPI's Portfolio Managers.

The DFPI will assess the appropriateness of current early warning triggers and recommend changes to existing thresholds or addition of new metrics to include in the module. The DFPI will also evaluate the availability of other tools to augment its existing Early Warning System module.

6. Address existing and emerging risks from technological changes, including social media and real-time deposit withdrawals

The DFPI will continue to require banks to assess risks from social media and digital banking technology as part of its examination processes and it will make enhancements to spotlight these concerns.

Going forward, the DFPI will require banks to consider their susceptibility to real-time deposit withdrawals and reputational risk posed by viral social media posts or from short sellers in publicly traded scenarios. Examiners will discuss with bank management what kind of social media monitoring a bank is conducting and how the bank intends to confront reputational and public relations concerns in the digital age.

Banks must consider how they evaluate and quantify their reputational risks and whether it is appropriate to hold more liquidity or capital to mitigate potential risk. This analysis will be included in the bank's risk assessment and will be considered in the evaluation of the management component.

Expectations around this assessment should be commensurate with the size and complexity of the bank.

The DFPI will also conduct additional training to ensure its examiners remain aware of and informed about these risks.

Appendix 1: Objective and Scope and Methodology

A. Objective

California Financial Code section 500 authorizes the DFPI to examine the operations of banks subject to the DFPI's supervision. In March 2023, the DFPI initiated an investigation into the DFPI's supervision of SVB after the failure of SVB. The primary objective of this report is to provide the public insight into the DFPI's oversight and regulation of SVB. As part of its commitment to transparency, this report contains assessments of confidential supervisory information (CSI) prepared by, on behalf of, or for the use of the DFPI. By sharing CSI, the DFPI aims to communicate to the public an accurate and transparent overview of what occurred.

This report also includes next steps the DFPI will take to enhance financial regulation and help prevent future bank failures. By implementing these measures, the DFPI intends to strengthen the financial regulatory system, promote the stability of the banking sector, and enhance risk management practices of banks. These steps will increase the resilience of banks to weather future market volatility and contribute to the overall sustainability of the banking sector.

B. Scope and methodology

The scope of this report includes an analysis of supervisory activities relating to SVB from 2018 until its failure on March 10, 2023.

Within days of SVB's failure, the DFPI began reviewing examination-related materials produced by FRBSF and DFPI examiners to assess the DFPI's past oversight of SVB. These materials included:

- Policies and manuals
- Correspondence
- Supervisory letters
- Reports of examination
- Internal communications

- Documentation and responses by SVB
- Information produced by DFPI staff after SVB's failure

Additionally, the DFPI reviewed and relied on publicly available information to gain a comprehensive understanding of the causes and consequences of SVB's failure, including:

- SVB SEC reports
- Independent research
- News articles
- Internet sources

The DFPI conducted interviews with DFPI examiners and managers to better understand decisions made regarding their supervisory approach to SVB and to clarify information contained in reports and correspondence. During the interview process, the DFPI asked detailed questions to cross check information and followed up with interviewees to clarify any inconsistencies or gaps in information.

The DFPI produced this report on a tight timeframe. Necessity required that the DFPI staff conducting the report rely heavily on the information and explanations provided by DFPI financial institution examiners and managers. The DFPI believes it is important to recognize these limitations but believes that the report produced achieves the goal of informing the public and policymakers about the factual circumstances leading to SVB's failure as expeditiously as possible.

Finally, it is important to note that some of the findings presented in this report were derived from materials produced exclusively by federal regulators.

Appendix 2: Table of Abbreviations

AEP	Alternating Examination Program
AFS	Available for Sale Securities
AM	Asset Manager
AML	Anti-Money Laundering
BCSH	California Business, Consumer Services and Housing Agency
Boston Private	Boston Private Bank & Trust Company
BSA	Bank Secrecy Act
CAMELS	Capital adequacy, Asset quality, Management, Earnings, Liquidity, Sensitivity to market risk
CCFPL	California Consumer Financial Protection Law
CECL	Current Expected Credit Loss
CFP	Contingency Funding Plan
CMBS	Commercial Mortgage-Backed Securities
Commissioner	Commissioner of California Department of Financial Protection and Innovation
CRO	Chief Risk Officer
CSI	Confidential Supervisory Information
DEIC	Dedicated Examiner-in-Charge
Department	California Department of Financial Protection and Innovation
DFI	California Department of Financial Institutions
DFPI	California Department of Financial Protection and Innovation
DOC	California Department of Corporations
ECM	Enhanced Continuous Monitoring
EIC	Examiner-in-Charge
EVE	Economic Value of Equity
EWIs	Early Warning Indicators
FDIC	Federal Deposit Insurance Corporation
FFIEC	Federal Financial Institutions Examination Council
FHLB	Federal Home Loan Bank
First Citizens	First-Citizens Bank & Trust Company
FRBSF	Federal Reserve Bank of San Francisco
GLBA	Gramm-Leach-Bliley Act
HCR	LFBO Horizontal Capital Review
HCSR	LFBO Horizontal Cybersecurity Review
HLR	LFBO Horizontal Liquidity Review

HTM	Held-To-Maturity
ICR	Internal Credit Review
ILST	Internal Liquidity Stress Testing
IOLTAs	Interest on Lawyers Trust Accounts
IPO	Initial Public Offering
IRR	Interest Rate Risk
IT	Information Technology
LBO	Large Banking Organization (Federal Reserve)
LBSP	Large Bank Supervision Program
LFBO Program	Large and Foreign Banking Organization Program
LFI Rating System	Large Financial Institution Rating System
MAP	Management Action Plan
MOU	Memorandum of Understanding
MRAs	Matters Requiring Attention
MRIAs	Matters Requiring Immediate Attention
NII	Net Interest Income
NOW	Negotiable Order of Withdrawal
OCC	Office of the Comptroller of the Currency
OFAC	Office of Foreign Assets Control
OM	Operations Manager
RBO	Regional Banking Organization
RMBS	Residential Mortgage-Backed Securities
ROE	Report of Examination
ROI	Report of Inspection
SEC	Securities and Exchange Commission
SV Bridge Bank	Silicon Valley Bridge Bank, N.A
SVB	Silicon Valley Bank
SVBFG	Silicon Valley Bank Financial Group
UBPR	Uniform Bank Performance Report
UFIRS	Uniform Financial Institutions Rating System
URSIT	Uniform Rating System for Information Technology

Appendix 3: Glossary of Terms

A

Alternating Examination Program (AEP)

The process by which state-chartered banks with total assets of less than $10 billion and a composite CAMELS rating of 1 (Strong) or 2 (Satisfactory) are examined independently on an alternating basis by their state or primary federal regulator. In other words, if the DFPI examines a bank independently one year, the primary federal regulator will examine the bank independently the next year. The DFPI and federal regulator share their examination findings and reports with each other. When it is the DFPI's turn to examine a bank independently, the DFPI will issue an independent report and share it with the federal regulator. The federal regulator will accept the report and not issue its own report for that exam cycle.

Asset Manager (AM)

A banking team member in charge of loan review, loan scoping, review of concentrations in credit (e.g., large loan concentration in a particular industry), and review of allowance for loan and lease losses.

Available-for-Sale Securities (AFS)

Securities which can be sold prior to maturity in order to meet liquidity needs or for any other reason.

B

Bank Secrecy Act (BSA)

The Financial Recordkeeping and Reporting of Currency and Foreign Transactions Act of 1970 is commonly known as the Bank Secrecy Act (BSA). The BSA was designed to help identify the source, volume, and movement of currency and other monetary instruments transported or transmitted into or out of the United States or deposited in financial institutions. The statute achieves this objective by requiring individuals, banks, and other financial institutions to file currency reports with the U.S. Department of the Treasury, properly identify persons conducting transactions, and maintain a paper trail by keeping appropriate records of financial transactions. These records enable law enforcement and regulatory agencies to pursue investigations of criminal, tax, and regulatory violations, if warranted, and provide evidence useful in prosecuting money laundering and other financial crimes. BSA examinations focus on a bank's compliance with the BSA and may be performed at the same time as safety and soundness examinations.

Brokered Deposits:

Deposits made to a bank through a third-party deposit broker.

C

CAMELS:

Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk.

Capital Adequacy

- A bank primarily derives its capital by issuing stock and retaining earnings.

- Capital serves several important functions: It absorbs fluctuations in income, so a bank can continue to operate in periods of loss or negligible earnings, (2) it provides a measure of assurance to the public that the institution will continue to provide financial services, thereby maintaining confidence in individual banks and in the banking system, and (3) it supports growth yet restrains unjustified or imprudent expansion of assets.

Asset Quality

- A bank's assets typically include cash, securities investments, loans, and fixed assets.
- Loans comprise a major portion of the asset base of most banks. Loans are the asset category which ordinarily present the greatest credit risk, and therefore, the greatest potential for loss to the bank.
- The securities portfolio of a bank can also represent a significant portion of total assets. Some of the objectives of the securities portfolio are to provide the maximum yield on investments while maintaining quality in the portfolio; provide a source of liquidity as protection against possible runoff of deposits or a sudden increase in loan demand; fulfill pledging requirements for public deposits, trusts, and borrowings; help manage interest rate risk; and diversify asset risks and income sources.

Management

- Management includes the board of directors and executive or senior officers. The board of directors is elected by the shareholders and has ultimate responsibility for the bank. Executive officers are appointed by the board of directors and involved in the policy-making functions of the bank and its day-to-day operations.
- The capability of the board of directors and management to conduct the affairs of the bank with candor, personal honesty, and integrity, coupled with their establishment of a strong risk management framework is the most important component to the success of the institution.

Earnings

- Earnings represent a bank's first line of defense against capital depletion. The continued viability of a bank depends on its ability to earn a reasonable return on its assets and capital.
- Earnings serve to absorb losses, augment capital, and provide the shareholders with a reasonable return on their investment.

Liquidity (and Funds Management)

- Liquidity is the measure of cash, liquid assets, and access to borrowing lines that a bank has available to quickly meet short-term business and financial obligations. Primary liquidity reserves include cash and balances due from depository institutions (cash held at other banks). Secondary liquidity reserves include short-term, readily marketable, unpledged securities and other negotiable instruments that can be converted into cash at little risk of loss.
- Funds management is one core component of sound liquidity planning and management. This involves managing assets and liabilities and off-balance sheet instruments to maximize and maintain the spread between interest earned and interest paid while ensuring the ability to pay liabilities and fund asset growth.

Sensitivity to Market Risk

- Sensitivity to market risk addresses the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a financial institution's earnings or capital.
- A bank must have the ability to identify, monitor, manage, and control its market risk, which typically

relates to exposure to changes in interest rates.

- Interest rate risk is the risk of reduction in, or loss of, capital and earnings caused by adverse changes in market interest rates. The impact of interest rate risk on earnings is significant because reduced earnings or losses affect the adequacy of a bank's liquidity and capital.

Composite Rating
The overall rating assigned to a financial institution, once a rating has been determined for each of the CAMELS components. The composite rating is based upon a scale of 1 through 5 in ascending order of supervisory concern. While a financial institution's composite rating generally bears a close relationship to its component ratings, the composite rating is not derived by averaging the component ratings. When assigning a composite rating, some components may be given more weight than others depending on a financial institution's situation.

Concentration
A significantly large volume of economically related assets or liabilities that an institution has advanced or committed to a certain industry, market sector, person, entity, or affiliated group. These assets or liabilities may, in the aggregate, present a substantial risk to the safety and soundness of the institution.

Confidential Supervisory Information (CSI)
Information that is prepared by, on behalf of, or for the use of financial regulatory agencies, including state or federal banking supervisors. CSI is typically confidential unless public release is specifically authorized. Examples of CSI include reports of examination, inspection, visitation, and related workpapers; confidential operating and condition reports; supervisory assessments; investigative requests for documents or other information; and supervisory correspondence or other supervisory communications.

Contingency Funding Plan (CFP)
A contingency funding plan is designed to ensure a bank has adequate sources of liquidity in place to fund normal operations under various contingent liquidity event scenarios.

D

Dedicated Examiner-in-Charge (DEIC)
A DEIC performs the same function as an EIC, but is dedicated to one institution—usually a large institution with total assets in excess of $10 billion. DEICs serve a minimum term of three years with a maximum term of five years.

E

Early Warning Indicators (EWIs)
A financial indicator that exceeds or falls below a predetermined threshold. These thresholds are based on various indicators derived from failed or troubled banks, are measured quarterly, and are calculated from the bank's quarterly call reports. EWIs are an internal tool used by the DFPI in its offsite monitoring of licensees.

Economic Value of Equity (EVE)
The cash flow calculation taking the current value of all asset cash flows and reducing it by the current value of all outstanding liability cash flows.

Examiner-in-Charge (EIC)

Banking examiner responsible for the overall examination and for completing the Report of Examination (ROE) and the work of all examiners assigned to an examination. EIC responsibilities include setting timelines for the completion of assignments, reviewing comments and conclusions from the examination team, serving as primary point of contact with bank management during the examination, and creating an organized environment in which the examination goals and objectives can be achieved.

F

Federal Funds Rate

The interest rate at which banks and other depository institutions lend money to each other, typically on an overnight basis. This rate is set by the Federal Reserve's Federal Open Market Committee (FOMC).

G

Governance Examination

The examination of the functionality of Board oversight over the affairs and operations of the bank.

H

Held-to-Maturity (HTM) Securities

Securities that companies purchase and intend to hold until they mature.

I

Insolvent

Insolvent means a financial institution has ceased to pay its debts in the ordinary course of business, or cannot pay its debts as they become due, or is insolvent within the meaning of the federal bankruptcy law.

Interest Rate Risk (IRR)

The potential that changes in market rates of interest will reduce earnings and/or capital. The risk that changes in prevailing interest rates will adversely affect assets, liabilities, capital, income, and/or expense at different times or in different amounts.

Internal Liquidity Stress Testing (ILST)

A financial institution's internally generated liquidity stress test, based on risks determined by the financial institution.

J

Joint Asset Quality Target Review

A review conducted jointly by the state and federal regulators of a segment of the bank's assets. If a bank has several different loan products, an asset quality target review would review one or more of those loan products and the surrounding policies and procedures.

Joint IT Target Reviews

A review, conducted jointly by the state and federal regulators, focused on a bank's information technology system and controls.

Joint Roll-Up Examination

A comprehensive cycle-ending examination in which examination findings are consolidated and composite and component CAMELS ratings are assigned. A joint roll-up examination is conducted jointly by the state and federal regulators, where both agencies agree on the findings, recommendations, and ratings, with one joint report of examination issued.

L

Large and Foreign Banking Organization (LFBO) Program

The Federal Reserve's LFBO program supervises large financial institutions with more than $100 billion in assets. Excluded from the LFBO program are eight of the biggest U.S. firms, which are supervised by a separate Federal Reserve program, the Large Institution Supervision Coordinating Committee (LISCC).

Large Banking Organization (LBO)

The Federal Reserve considers LBOs to be domestic financial institutions with total consolidated assets of at least $100 billion that are not included in the Federal Reserve's LISCC supervision program.

Large Bank Supervision Program

The DFPI's Large Bank Supervision Program (LBSP) supervises California banks with total assets of $10 billion or more, in coordination with federal regulatory agencies. Out of the 99 banks the DFPI supervises, 9 are over the $10 billion threshold.

Large Financial Institution (LFI) Rating System

The rating system used by the Federal Reserve Board to evaluate and communicate the supervisory condition of the following: (1) bank holding companies with total consolidated assets of $100 billion or more; (2) all non-insurance, non-commercial savings and loan holding companies with total consolidated assets of $100 billion or more; and (3) U.S. intermediate holding companies of foreign banking organizations with combined U.S. assets of $50 billion or more established pursuant to the Federal Reserve's Regulation YY.

LFBO Horizontal Capital Review (HCR

An annual review of capital position and risk-management practices of certain large financial institutions conducted by the Federal Reserve.

LFBO Horizontal Cybersecurity Review (HCSR)

An annual review of cybersecurity practices of certain large financial institutions conducted by the Federal Reserve.

LFBO Horizontal Liquidity Review (HLR): An annual review of liquidity position and risk-management practices of certain large financial institutions conducted by the Federal Reserve.

Liquidity: See the CAMELS definition above.

Loan Scoping: A process examiners perform to determine which loans will be reviewed during an examination.

M

Memorandum of Understanding (MOU)

An informal agreement between a licensee and the Department, signed by both parties. The appropriate federal regulator may also be a party to the agreement. MOUs are designed to address and correct identified weaknesses in a licensee's condition.

Matter Requiring Attention (MRAs)

A recommendation from the Federal Reserve to address a weakness that could lead to deterioration in a banking organization's soundness. The Federal Reserve considers MRAs to be important and the banking organization is expected to address the MRA over a reasonable period of time, but the timing need not be immediate.

Matter Requiring Immediate Attention (MRIAs)

A call for more immediate action that the Federal Reserve considers to be of significant importance and urgency and that banking organizations must address immediately. These include: (1) matters that have the potential to pose significant risk to the safety and soundness of the banking organization; (2) matters that represent significant noncompliance with applicable laws or regulations; (3) repeat criticisms that have escalated in importance due to insufficient attention or inaction by the banking organization; and (4) in the case of consumer compliance examinations, matters that have the potential to cause significant consumer harm.

Model Risk Management

An assessment of how bank management identifies, monitors, mitigates, and controls risk associated with using various models in their banking operation. For instance, if a bank uses an automated model to make credit decisions, the review of this model would fall under Model Risk Management.

N

Net Interest Income

A financial performance measure that reflects the difference between the revenue generated from a bank's interest-bearing assets and the expenses associated with paying on its interest-bearing liabilities.

Net Interest Margin

A measurement of the difference between the interest income generated and the amount of interest paid out to lenders.

O

Operations Manager (OM)

A banking team member focused on directing examiner review of earnings performance, capital contingency planning, liquidity, securities, earnings, etc.

P

Primary Federal Regulator
The federal regulatory agency tasked with being the primary federal supervising entity of a financial institution.

R

Regional Bank
The Federal Reserve considers regional banks to be those that have between $10 billion and $100 billion in assets.

Regional Banking Organization (RBO)
The Federal Reserve classifies RBOs as organizations with total assets between $10 billion and $100 billion.

Risk Management Program
A risk management program addresses, prevents, and manages potential risks that can impact a bank's finances and overall operations.

S

Stress Testing
Forward-looking quantitative evaluation of bank capital that demonstrates how a hypothetical economic or financial crisis (e.g., recession) would affect capital ratios.

Supervisory Letter
The means to communicate findings, deficiencies and recommendations identified at target reviews conducted in between roll-up examinations.

T

Target Examination
A full-scope examination on specific areas identified by bank examiners. Typically, a target examination includes an entry letter, scope memorandum, and a conclusion memorandum with output supervision. It is a point-in-time assessment with a predefined examination scope and not an ongoing process.

U

Uniform Bank Performance Report (UBPR)
An analytical tool for bank supervisory, examination, and management purposes. UBPR shows the impact of management decisions and economic conditions on a bank's performance and balance sheet composition.

Uniform Financial Institutions Rating System (UFIRS)
Commonly known as the CAMELS rating system, the UFIRS is a supervisory rating system that represents a comprehensive and uniform evaluation of an institution's financial condition, compliance with banking regulations and statutes, and overall operating soundness.

Unrealized Losses
An unrealized loss occurs when the value of an asset has decreased, but the asset has not yet been sold.

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EUREKA

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