Remarks by Vice Chairman Travis Hill at the Mercatus Center on "Banking's Next Chapter? Remarks on Tokenization and Other Issues"

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Thank you to the Mercatus Center for having me today. I am going to devote most of my remarks to a discussion of tokenization and the future of our financial system, and then will conclude by briefly discussing a few discrete issues related to bank failures.

Tokenization

Money and payments have been evolving for as long as they have existed. From general commodities to precious metals[1] to cash to credit cards, the methods that society has used to store and transfer value have changed dramatically over time, and each major upgrade to the monetary architecture has introduced both new benefits and new risks. Similarly, our payment, clearing, and settlement infrastructure – the plumbing at the heart of the financial system – has evolved considerably over the past several decades.

As most of us are reminded daily, electronic and digital forms of money and payments now predominate. Credit card, ACH, and other noncash payments have increased rapidly in recent years,[2] and the share of households that utilize mobile banking as the primary method to access their accounts continues to rise.[3] Furthermore, the vast majority of what people generally think of as "money" is in reality ledger balances sitting on databases maintained by commercial banks.[4]

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[1] *See, e.g.,* ADAM SMITH, WEALTH OF NATIONS, p. 32 (1776) ("In the rude ages of society, cattle are said to have been the common instrument of commerce; and, though they must have been a most inconvenient one, yet, in old times, we find things were frequently valued according to the number of cattle which had been given in exchange for them. . . . Salt is said to be the common instrument of commerce and exchanges in Abyssinia; a species of shells in some parts of the cost of India; dried cod at Newfoundland; tobacco in Virginia; sugar in some of our West India colonies; hides or dressed leather in some other countries; and there is at this day a village in Scotland, where it is not uncommon, I am told, for a workman to carry nails instead of money to the baker's shop or the ale-house. In all countries, however, men seem at last to have been determined by irresistible reason to give the preference, for this employment, to metals above every other commodity.").

[2] *See* Board of Governors of the Federal Reserve System, *The Federal Reserve Payments Study: 2022 Triennial Initial Data Release* (finding that noncash payments totaled $128.5 trillion in 2021 and increased 9.5 percent per year from 2018 to 2021, more than twice the rate of increase from 2015 to 2018, while ATM cash withdrawals totaled $730 billion in 2021 and declined 10.1 percent per year from 2018 to 2021.).

[3] *See* Federal Deposit Insurance Corporation, *2021 FDIC National Survey of Unbanked and Underbanked Households*, p. 4 (July 2023) (showing that the percentage of "banked households that accessed their account in the past 12 months" through mobile banking increased from 15.1% in 2017 to 43.5% in 2021, dramatically higher than any other channel).

[4] *See, e.g.*, Bank for International Settlements (BIS), *Annual Economic Report*, p. 85 (June 2023) ("The advent of money in the form of book entries on ledgers overseen by trusted intermediaries opened the door to new financial instruments that bridged both geographical distance and the long lags between the delivery of goods and settlement of payments.").

Against this backdrop, I am going to focus on one specific innovation that has been the subject of a tremendous amount of research and development in recent years: tokenizing commercial bank deposits and other assets and liabilities.[5] At its most basic level, tokenization transforms the way ownership of assets is recorded and enables far-reaching new functions, as described further below. Although tokenized assets, including tokenized deposits, may reside on blockchains and other distributed ledgers, they should not be confused with blockchain-native bearer assets like Bitcoin and Ether (generally referred to as crypto-assets or cryptocurrencies). Instead, tokenization involves a representation of "real-world assets"[6] on a distributed ledger, including, but not limited to, commercial bank deposits, government and corporate bonds, money market fund shares, gold and other commodities, and real estate.[7]

Last year, the Bank for International Settlements declared that "the monetary system stands at the cusp of another major leap."[8] Many other organizations and commentators have similarly expressed optimism that tokenization may have a transformative impact on banking and payments.[9] This process is still in the early stages, with many open questions, but development is happening fast and occurring across the globe.

Potential Benefits, Challenges, and Risks

A number of financial institutions around the world have been actively exploring the possibility of tokenizing assets to improve the way we transfer value. Notwithstanding recent advancements, our payment and settlement systems remain slow and inefficient for many users, with delayed settlements for large classes of transactions (such as cross-border transactions and

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[5] Other nomenclature has been used to describe tokenized commercial bank money. *See, e.g.*, Office of the Comptroller of the Currency, OCC Chief Counsel's Interpretation on National Bank and Federal Savings Association Authority to Use Independent Node Verification Networks and Stablecoins for Payment Activities (Jan. 4, 2021) (Interpretive Letter #1174) (using the term "stablecoins"); Board of Governors of the Federal Reserve System, Supervisory Nonobjection Process for State Member Banks Seeking to Engage in Certain Activities Involving Dollar Tokens (Aug. 8, 2023) (SR 23-8) (using the term "dollar tokens"). I will use the term "tokenized deposits," which appears to be the most widely used term for this universe.

[6] However, tokenized assets can also be native to blockchain. *See, e.g.,* Byron Gillium, DAS London Preview: Tyrone Lobban on Tokenization, *Blockworks* (Feb. 28, 2024) ("...[W]hen we think about tokenized assets, we think about them representing the ownership rights to a legacy, traditional asset. Where this varies is when you have traditional, but digitally native assets. For example, if you're issuing a bond natively on a blockchain and there isn't an equivalent bond that's sitting in some custody account, then that bond truly is a new asset that lives on-chain.").

[7] *See, e.g.,* Francesca Carapella, Grace Chuan, Jacob Gerszten, Chelsea Hunter, and Nathan Swem, Tokenization: Overview and Financial Stability Implications, Board of Governors of the Federal Reserve System, p. 12 (Sept. 26, 2023).

[8] *BIS Annual Economic Report*, *supra* note 4, at 85.

[9] *See, e.g.*, Press Release, Federal Reserve Bank of New York, Research Study Examines Feasibility of Theoretical Payments System Designed to Facilitate and Settle Digital Asset Transactions, (July 6, 2023) (noting that a proof of concept using tokenized deposits "successfully simulated both the domestic and cross-border scenarios, identifying shared ledger technology as a potential solution to support payment innovation"); Alexandre Birry and Chuck Mounts, Toward a Tokenized Future, *S&P Global* (Jan. 13, 2023) ("Tokenization — the conversion of assets and rights into a digital token on a blockchain — will likely upend by 2030 the transaction methods of many well-established asset classes, tangible or intangible.").

bond issuances) and numerous intermediaries, each adding costs. Tokenization and distributed ledgers have the potential to overcome many of these obstacles by operating 24/7/365 and introducing settlement finality in real time. But tokenization offers much more than just a shiny version of Zelle or Venmo. In particular, it offers *programmability*, the ability to hard-wire on the ledger future transfers of value that automatically self-execute based on the occurrence of future conditions; *atomic settlement*, or the simultaneous exchange and settlement of payment and delivery, including among multiple parties;[10] and *immutability* of the shared ledger that can serve as a transaction record and reliable audit trail.[11]

We already see powerful examples of how tokenization is beginning to deliver tangible benefits, such as the introduction of intraday-repo[12] and dramatic increases in settlement times for multi-currency bond issuances.[13] While the existing use cases have focused on institutional customers, in the future, the benefits could expand to retail; to give one example, programmability may be able to simplify the home buying process by eliminating the need to place funds in escrow prior to closing.[14]

Similarly, atomic settlement introduces enormous efficiencies to the functioning of key markets. For example, settlement lags in the foreign exchange market – in which approximately $7.5 trillion in trading occurs each day[15] – could be eliminated,[16] and there is potential for lag

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[10] *See, e.g.,* Michael Lee, Antoine Martin, and Benjamin Miller, Federal Reserve Bank of New York, What is Atomic Settlement?, *Liberty Street Economics* (Nov. 7, 2022).

[11] *See e.g.,* Regulated Liability Network (RLN), Proof of Concept, *Business Applicability Report*, p. 10 (July 6, 2023).

[12] *See* Gillium, *supra* note 6 ("There's about $2 billion dollars of tokenized Treasurys and tokenized cash that are being exchanged in intraday-repo transactions on the Onyx Digital Assets (ODA) platform every day. That far exceeds any other tokenized real-world asset use case today. Repos are a very standard way of providing or accessing finance through the use of collateral, and now you can just do that in a better way.").

[13] *See* Press Release, HSBC Delivers World's First Multi-Currency Digital Bond Offering (Feb. 15, 2024) ("Digitally native issuances on the private blockchain of HSBC Orion means faster settlement times. The typical time for settling conventional bond issuance in Hong Kong is five days (T+5 settlement cycle). For this issuance, it was one business day (T+1 settlement cycle).").

[14] *See* Rodney Garratt and Hyun Song Shin, The Case for Tokenized Bank Deposits, *Project Syndicate* (June 12, 2023) ("The current escrow process requires an intermediary and the transfer of funds back and forth between different accounts, possibly at different banks. Yet this process could be automated using tokenized deposits and so-called smart contracts, cutting out the middleman and negating the need for a third-party account. The escrow funds could simply be locked in the buyer's account using a smart contract.").

[15] *See* BIS, OTC foreign exchange turnover in April 2022, *Triennial Central Bank Survey* (Oct. 27, 2022).

[16] *See, e.g.*, *BIS Annual Economic Report*, *supra* note 4, at 99 ("Another important use case is the mitigation of settlement risk in the multi-trillion dollar FX market. Existing netting and payment-versus-payment (PvP) mechanisms help to mitigate settlement risk, but do not fully eliminate it, not least as existing PvP arrangements are at times unavailable, unsuitable for some trades or deemed too costly by market participants. Atomic settlement around the clock, instead, could eliminate settlement lags."); *but see* CLS, *Atomic settlement: Counting down to zero* (July 21, 2023) ("In FX, atomic settlement – in the sense of simultaneous settlement – is not a novel concept. Systems like CLSSettlement, running on proven technology, successfully provide PvP functionality on a vast scale every business day.").

times in the trade finance industry – which typically relies on document exchanges among a large number of entities – to be greatly reduced.[17]

Of course, as with most things, there are also challenges and risks. On the technological and operational side, there remain many open questions. For example, if tokenization plays a central role in our future financial system, will there be a small handful of unified ledgers on which all transactions occur, or will many institutions maintain their own blockchains? To what extent will these platforms be interoperable with one another, so that customers using different blockchains can transact seamlessly with each other in a safe and secure manner? From a legal perspective, what additional work is needed to clarify the extent to which ownership and other rights associated with a given asset attach to and move with the token?[18]

These and many other critical questions will be answered – one way or another – as financial institutions, developers, regulators, and other stakeholders continue developing the technology. Meanwhile, global standards are being established, directly or indirectly, and with many non-U.S. jurisdictions actively engaged in this area,[19] the United States risks ceding influence at this critical stage.

When it comes to risks, as the resolution authority, we at the FDIC are always focused on bank runs and resolvability. Instant settlement has the potential to further increase the speed and intensity of runs.[20] Programmability may make it easier for customers to automatically remove funds following negative news about a bank, which could exacerbate runs. We also need to consider how to ensure that some form of "off switch" exists to ensure tokens stop moving immediately at the point of a bank failure.

On the other hand, tokenization can also mitigate a range of risks. Atomic settlement reduces the risk of loss in the time between payment and delivery,[21] and the risk that transactions do not occur altogether because a party lacks trust that delivery will occur after payment, risks

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[17] *See, e.g.*, HSBC, Cross-border Letter of Credit Blockchain Transaction (describing a blockchain-based letter of credit transaction completed by HSBC Hong Kong in 24 hours that would take 5 to 10 days using paper-based documents); *see also* Sanne Wass, Trade finance industry remains hopeful on blockchain despite failed projects, *S&P Global Market Intelligence* (Oct. 27, 2022).

[18] Although the 2022 amendments to the Uniform Commercial Code, including the new Article 12 governing "controllable electronic records," address certain legal questions, they have not yet been adopted by every jurisdiction across the United States. *See* Uniform Law Commission, 2022 Amendments to UCC.

[19] *See, e.g.*, *BIS Annual Economic Report*, *supra* note 4, at 91 (describing tokenization projects involving, among others, the Bank of France, Swiss National Bank, Hong Kong Monetary Authority, Monetary Authority of Singapore, Reserve Bank of Australia, and South African Reserve Bank); *see also* Financial Conduct Authority, FCA welcomes industry report on fund tokenization (Nov. 24, 2023).

[20] *See* Travis Hill, Recent Bank Failures and the Path Ahead, note 11 (April 12, 2023).

[21] *See, e.g.*, Lee, Martin, and Miller, *supra* note 10 ("A canonical example is the case of Herstatt Bank, a German bank active in foreign exchange (FX) markets that went bankrupt in 1974. German regulators closed the bank after it had received payment of Deutsche Marks from its counterparties but before it released the U.S. dollars that it owed, leaving the counterparties with a loss."); Michael Junho Lee, Antoine Martin, and Robert M. Townsend, Zero Settlement Risk Token Systems (Jan. 2024).

that can be magnified during market breakdowns.[22] Programmability can allow a bank to respond to liquidity stresses immediately and automatically, moving liquidity when and where it is needed. And a more resilient IT infrastructure can significantly reduce payment errors.[23]

Illicit finance presents another set of challenges that many are currently working to address. For example, to comply with existing "know your customer" and related obligations, it may be possible to embed a "whitelist"[24] within a token (*i.e.*, only authorize the token to be transferred to pre-approved wallets), or, on a permissioned ledger, to restrict access at onboarding. In addition, the transparency and immutability of the ledger can help regulators and law enforcement agencies obtain accurate and verifiable data on past transactions, and seize assets from criminals.[25]

Regulatory Approach and Need for Clarity

Another challenge is the regulators. In 2021, the banking agencies developed and published a roadmap for providing clarity to the public on a range of legal and policy questions related to digital assets.[26] The objective was to set policy across the board in a consistent manner. Staff members across the three agencies made meaningful progress in late 2021 and early 2022, but nothing was ever released publicly, and instead, the agencies established processes under which institutions must engage with their regulator on an individual basis before engaging in any activities related to digital assets.[27] At the FDIC, this process applies not just to

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[22] *See, e.g.,* MOHAMMAD EL-ERIAN, THE ONLY GAME IN TOWN: CENTRAL BANKS INSTABILITY, AND RECOVERING FROM ANOTHER COLLAPSE, p. 46 (2016) (describing the "erosion of trust in the payments and settlement system" following the failure of Lehman Brothers, comparing it to a fast food drive-through where customers are unwilling to pay at the first window because they do not trust the restaurant to complete delivery at the second window); Michael J. Fleming and Kenneth D. Garbade, Federal Reserve Bank of New York, When the Back Office Moved to the Front Burner: Settlement Fails in the Treasury Market After 9/11, *FRBNY Economic Policy Review*, p. 45 (Nov. 2002) ("[D]aily average fails jumped from $1.7 billion during the week ending Wednesday, September 5, to $190 billion during the week ending September 19.")

[23] *See, e.g.*, RLN, Proof of Concept, *Business Applicability Report*, *supra* note 11, at 10 (noting reconciliation issues and payment rejections across traditional payment systems due to inconsistent data).

[24] *See, e.g.*, Coinbase, What is a crypto whitelist?

[25] *See, e.g.*, Dani Haston, Chainalysis, Cryptoasset Realization: How Cryptocurrencies Are Frozen, Seized, and Forfeited, (Apr. 29, 2022) ("Governments have seized billions of dollars in cryptocurrency since Bitcoin's creation. American agencies have seized at least $7.1 billion; London Metropolitan Police has seized half a billion; and law enforcement agencies in Latin America, Europe, and Asia–Pacific have collectively made cybercriminals forfeit billions more.").

[26] *See* Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Joint Statement on Crypto-Asset Policy Sprint Initiative and Next Steps (Nov. 23, 2021).

[27] *See* Federal Deposit Insurance Corporation, Notification of Engaging in Crypto-Related Activities (Apr. 7, 2022) (FIL-16-2022); Board of Governors of the Federal Reserve System, Engagement in Crypto-Asset-Related Activities by Federal Reserve-Supervised Banking Organizations (Aug. 16, 2022) (SR 22-6); Office of the Comptroller of the Currency, Chief Counsel's Interpretation Clarifying: (1) Authority of a Bank to Engage in Certain Cryptocurrency Activities; and (2) Authority of the OCC to Charter a National Trust Bank (Nov. 18, 2021) (Interpretive Letter #1179); *see also* Federal Reserve, SR 23-8, *supra* note 5.

"crypto," but also includes "participating in blockchain- and distributed ledger-based settlement or payment systems, including performing node functions."[28]

I appreciate the need for regulators to be deliberative and careful in approaching these issues. We should do our homework and make sure we understand the implications of new technologies that can reshape banking. And I recognize the value in being cautious regarding the extent to which the FDIC-insured banking system engages with the crypto economy.

But there are significant downsides to the FDIC's current approach, which has contributed to a general public perception that the FDIC is closed for business if institutions are interested in anything related to blockchain or distributed ledger technology. The confidential nature of the existing process means there is little public information on what types of activities the FDIC might be open to, if any. I have heard of some cases in which requests submitted by institutions have gone unanswered for long periods of time, while other institutions have spent months responding to a long stream of information requests, diverting attention away from developing new technologies and systems. While the largest banks are able to hire consultants and staff in Washington, D.C. to read the tea leaves to discern what might be approved, the message being heard by the vast majority of the industry could be interpreted as *don't bother trying*.

I recognize that sometimes it can be difficult for regulators to issue broadly applicable policy in areas where the technology is evolving quickly, but I think our goal should still be to provide as much clarity as is feasible regarding what is permissible and what we consider safe and sound. To the extent that we need to maintain a bank-by-bank approval process, it is critical that we provide feedback to institutions in a timely way. Even if the answer is "no," it is better to give institutions a clear answer with an explanation than to leave them in indefinite limbo when there is no prospect of a "yes" answer. I also think it is important that we allow experimentation and testing – in particular in cases where there is no material risk to the institution – without requiring a lengthy approval process.

Furthermore, it would be helpful to provide certainty that deposits are deposits, regardless of the technology or recordkeeping deployed, and if there are reasons to distinguish some or all tokenized deposits from traditional deposits for any regulatory, reporting, or other purpose, the FDIC should, following an opportunity for public comment, explain how and why. And finally, the agencies need to distinguish between "crypto" and the use by banks of blockchain and distributed ledger technologies. I do not think banks interested in the latter, insofar as it simply represents a new way of recording ownership and transferring value, should need to go through the same gauntlet as banks interested in crypto.

Custody

[28] FDIC, FIL-16-2022, *supra* note 27. *See also* Federal Reserve, SR 22-6, *supra* note 27 (defining "crypto-asset" as "any digital asset implemented using cryptographic techniques"); OCC Interpretive Letter #1179, *supra* note 27 (covering "cryptocurrency, distributed ledger, and stablecoin activities").

On a related note, in March 2022, the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin 121 (SAB 121), which provides that an entity that safeguards crypto-assets should recognize such an asset on its balance sheet as both an asset and a liability.[29] This treatment sharply departs from how custodians account for all other assets held in custody, which are generally held off-balance sheet and treated as the property of the customer, not the custodian. On-balance sheet recognition triggers the full panoply of capital, liquidity, and other prudential requirements *only* for bank custodians, which makes it prohibitively challenging for banks to engage in this activity at any scale. It is worth asking whether it is in the public interest for one crypto exchange to provide custody services for most of the market in approved Bitcoin exchange-traded products, while highly regulated banks are effectively excluded from the market.[30] Additionally, the SEC's definition of "crypto-asset" is extremely broad and could be read to capture not just blockchain-native assets but also tokenized versions of real-world assets.[31] I think this is a clear example of why it is generally constructive for agencies to seek public comment before publishing major policy issuances, and at a minimum believe it would be helpful to clarify that SAB 121 does not apply to the wider universe of tokenized assets beyond blockchain-native assets.

Tokenization Coda

In 1958, after a number of other banks had tried and failed to introduce similar products, Bank of America famously launched its first credit card in Fresno, California, and within a year had distributed cards to "every nook and cranny in California."[32] This initial effort was disastrous, and Bank of America suffered substantial financial losses, along with reputational damage.[33] But the bank persevered and was making money on the business by 1961,[34] while credit cards would go on to revolutionize how millions of Americans pay for things. But it is worth asking – would regulators today ever allow a bank to work through those types of setbacks in developing a new way for customers to make payments?

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[29] Securities and Exchange Commission, Staff Accounting Bulletin No. 121 (Mar. 24, 2022).

[30] *See* Coinbase Global, Inc., Form 10-K, p. 10 (February 15, 2024); *see also* https://twitter.com/brian_armstrong/status/1758531949331927217?s=20 (noting that Coinbase provided custody services for "around 90% of the ~$37B in Bitcoin ETF assets").

[31] *See* SAB 121, *supra* note 29 ("For purposes of this SAB, the term 'crypto-asset' refers to a digital asset that is issued and/or transferred using distributed ledger or blockchain technology using cryptographic techniques."). SAB 121 does not define the term "digital asset."

[32] JOE NOCERA, A PIECE OF THE ACTION: HOW THE MIDDLE CLASS JOINED THE MONEY CLASS, p. 29 (1994).

[33] *See id.* at 30 ("What had gone wrong? It's hard, in hindsight, to think of anything that didn't go wrong. The bank's frantic effort to push credit cards out the door had degenerated into a small catastrophe.").

[34] *See id.* at 32 ("It took well over a year for the BankAmericard program to right itself, but gradually it did. In his 1960 report to shareholders, [CEO Clark] Beise predicted that the BankAmericard would soon become a 'significant source of earnings.' By the following April, the card had turned a profit.").

We should certainly be humble[35] when it comes to making any sorts of predictions about what the future financial system will look like, but as financial institutions and developers around the world continue to develop blockchain and distributed ledger technologies, a poor regulatory approach to these issues presents substantial opportunity costs for bank customers and the U.S. economy, discourages institutions from investing in the future, and cedes influence to non-U.S. jurisdictions.

Bank Failures

I am now going to pivot and briefly discuss a few other topics. As we consider the changing landscape of banking and payments, we should remain mindful of our core mission of minimizing the risk and severity of disorderly bank failures. In that vein, I'm going to pose three questions for policymakers to consider:

1. Should External Auditors Issue "Going Concern" Opinions About Banks?

Under U.S. auditing standards, the external auditor of a company is generally required to assess the company's future prospects as a going concern, and publicly disclose if it concludes it is more likely than not that the company will be unable to meet its obligations when they come due over the next year.[36] But unlike any other industry, to an unparalleled degree, because of the economic and social costs of bank failures, the U.S. has built an enormous apparatus to minimize the risk of banks failing[37] and a special resolution regime to maximize the likelihood that such failures occur in an orderly way. Meanwhile, a public going concern opinion is often described as the "death knell" for an institution and the "nuclear option" for the auditor.[38]

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[35] *See, e.g.*, Emily Price, The iPhone Turns 10: Here's What Skeptics First Thought About It, *Fast Company* (Jan. 9, 2017) ("Steve Ballmer in 2007 while he was CEO of Microsoft: 'There's no chance that the iPhone is going to get any significant market share. No chance. It's a $500 subsidized item. They may make a lot of money. But if you actually take a look at the 1.3 billion phones that get sold, I'd prefer to have our software in 60% or 70% or 80% of them, than I would to have 2% or 3%, which is what Apple might get.'"); Paul Milo, Flying Car Dreams Take Off -- Again, *Forbes* (May 4, 2010) ("Responding to an apparently skeptical reporter, Henry Ford in 1940 said: 'Mark my words. A combination airplane and motorcar is coming. You may smile. But it will come.'").

[36] *See* Public Company Accounting Oversight Board, AS 2415: Consideration of an Entity's Ability to Continue as a Going Concern; American Institute of Certified Public Accountants, AU-C Section 570: The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern; *see also* Financial Accounting Standards Board, ASC 205-40: Presentation of Financial Statements—Going Concern.

[37] This includes, for example, deposit insurance, a central bank that serves as lender of last resort, and thousands of on-site bank examiners spread across many federal and state supervisory authorities.

[38] *See, e.g.,* Michael Kapoor, Pressure Mounts for Tougher Audit Warning on Troubled Companies, *Bloomberg Tax* (Oct. 28, 2019) ("'It's hard for auditors to qualify the going concern statement because it would be the death knell for the company,' Babington said. 'It's the nuclear option.'"); Nicola M. White, Rite Aid Didn't Flag Going Concern Risk Before Bankruptcy Filing, *Bloomberg Tax* (Oct. 16, 2023) ("'The issue is it's the death knell,' Walworth said. 'You really are sealing the fate of the company once you issue the going concern warning, and therein lies the trepidation.'").

Today, auditors of stressed banks face a Sophie's Choice-like dilemma. Auditors do not want to repeat the perceived errors of Silicon Valley Bank (SVB) and Signature Bank, in which an auditor issued clean audit opinions shortly before their failures[39] and is now subject to lawsuits.[40] But auditors also appear to recognize the impact that publicly issuing such an opinion can have on public confidence in a bank, and do not want to be blamed as the proximate cause of the bank's failure. So perhaps unsurprisingly, over the last year, we've had numerous examples of auditors discussing issuing going concern opinions behind the scenes, and no examples[41] of going concern opinions actually being issued.[42] The fundamental problems are that bank failures are generally hard to predict up until the very end,[43] and publicly predicting them can be a self-fulfilling prophecy.

2. To What Extent, if Any, Should Poorly-Rated Banks Have Reduced Access to the Discount Window?

The Federal Reserve fulfills its lender-of-last-resort function by offering ongoing liquidity to banks through the discount window, under terms consistent with the famous Bagehot

[39] *See* SVB Financial Group, Form 10-K, p. 92 (February 24, 2023) ("In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission."); Signature Bank, Form 10-K, p. 95 (March 1, 2023) (available for download at, https://efr.fdic.gov/fcxweb/efr/index.html) ("In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.").

[40] *See, e.g.,* City of Hialeah Employees' Retirement System, et al. v. Becker, et al., No. 3:23-cv-01697 (N.D. Cal. 2023) ("Additionally, KPMG's audit report was silent as to whether—pursuant to Public Company Accounting Oversight Board AS 2415—there was 'substantial doubt about [SVB's] ability to continue as a going concern for a reasonable period of time.'"); In re SVB Fin. Grp. Sec. Litig., 3:23-cv-01097-JD (N.D. Cal. Nov. 30, 2023).

[41] As far as I am aware...

[42] To give one example, First Republic received a clean audit opinion 2 weeks before the SVB and Signature failures. *See* First Republic Bank, Form 10-K (Feb. 28, 2023). Following those failures, there was extensive discussion over whether First Republic would receive a going concern opinion, at a time when any consumer of First Republic's financial statements would have been well aware of the bank's condition. But no such opinion was ever issued, and the bank failed on May 1, 2023.

[43] To illustrate the unpredictability of bank failures, in recent years, the vast majority of banks that have found their way onto the FDIC's internal projected failure lists have not failed, while other banks fail suddenly and unexpectedly. As another example, since the beginning of 2021, there have been between 39 and 55 banks on the FDIC's Problem Bank List every quarter, while only 5 banks have failed during that time (and of those five, only one had been added to the problem bank list more than a few days before failure).

dictum to lend freely on good collateral at a penalty rate.[44] Banks with poor supervisory ratings,[45] very weak capital ratios, or otherwise deemed to not be in sound financial condition are only eligible to borrow from the discount window on secondary credit, which is typically overnight and applies a higher penalty rate and higher haircuts to collateral than primary credit.[46] According to the FDIC's post-failure report, the final nail in First Republic Bank's coffin was its shift to secondary credit, at which point the bank lacked sufficient liquidity to meet its obligations.[47] The knowledge that this was the potential consequence of a CAMELS downgrade was a regular topic of conversation in the weeks leading up to the bank's failure. In addition, more generally, just the potential that a bank might be limited to secondary credit, even if the institution is not actively borrowing from the window, can impact various assessments made by the bank's auditor, including the bank's ability to hold securities[48] and its prospects as a going concern.

Which banks get moved to secondary credit at times appears… curious. Some banks are poorly rated (and thus ineligible for primary credit) because of compliance or operational weaknesses, without any evidence suggesting a deterioration in financial condition. Perhaps at a minimum, either the Federal Reserve's presumption that 4- or 5-rated banks are ineligible for primary credit should only apply when the poor rating is a result of unsound financial condition,[49] *or* alternatively perhaps supervisors should only downgrade a bank to a composite 4

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[44] *See, e.g.,* Paul Tucker, The Repertoire of Official Sector Interventions in the Financial System: Last Resort Lending, Market-Making, and Capital, p. 5 (May 2009) ("Bagehot's famous dictum, in Lombard Street, was that, to avert panic, central banks should lend early and freely (ie without limit), to solvent firms, against good collateral, and at 'high rates'.").

[45] *See, e.g.,* Board of Governors of the Federal Reserve System, Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Office of Thrift Supervision, and National Credit Union Administration, The Use of the Federal Reserve's Primary Credit Program in Effective Liquidity Risk Management ("An institution's supervisory examination rating and capital status largely determine its eligibility for primary credit. . . . In general, depository institutions with composite CAMELS ratings of 1, 2, or 3 that are at least adequately capitalized are eligible for primary credit unless supplementary information indicates their condition is not generally sound.").

[46] Board of Governors of the Federal Reserve System, Discount Window Lending.

[47] Federal Deposit Insurance Corporation, FDIC's Supervision of First Republic Bank, p. 22 (September 8, 2023) ("The [CAMELS] downgrade shifted the bank's borrowing status with the Federal Reserve to Secondary Credit, which eliminated remaining capacity to meet liquidity demands due to additional collateral haircuts."). This should not be interpreted to suggest the bank would have survived but for the move to secondary credit.

[48] If a bank's auditor concludes the bank lacks the "positive intent *and ability*" to hold securities classified as held-to-maturity (HTM) to maturity, the bank must reclassify all HTM securities as available-for-sale (AFS), which means any unrealized losses are then reflected in Accumulated Other Comprehensive Income (AOCI) and tangible equity. *See* Financial Accounting Standards Board, ASC 320-10-25: Classification of Debt Securities. Furthermore, if a bank's auditor concludes the bank is more likely than not to need to sell AFS securities to meet liquidity needs, the bank will need to record the losses in earnings, rather than AOCI. *See* Financial Accounting Standards Board, ASC 326-30-35-15: Accounting after a Write-Down Resulting from an Intent to Sell or More-Likely-Than-Not Requirement to Sell. For most banks, this means losses previously not reflected in regulatory capital will suddenly be reflected in regulatory capital, even if the bank has no plans or immediate need to sell the securities and realize the losses.

[49] *See supra* note 45.

or 5 for reasons related to financial condition.[50] Meanwhile, in other cases, banks that are not poorly rated get moved to secondary credit, with little information available regarding how such decisions get made, but yet a distressed First Republic remained on primary credit for several weeks until its ratings downgrade.

3. To What Extent Should the Federal Home Loan Banks (FHLBs) Lend to Struggling Banks?

Anecdotally, it has seemed over the past year that the FHLBs have been quicker to restrict, and less predictable in restricting, lending to banks experiencing stress.[51] I appreciate that the FHLBs are poorly positioned to serve a lender-of-last-resort-type function,[52] and that there are deeper questions regarding the FHLBs' footprint that are worth asking, but I encourage policymakers to think holistically about the implications of cutting off banks from the FHLBs when stress occurs. The ultimate costs if the institution subsequently fails are likely to be borne by the FDIC rather than the FHLBs,[53] and it is worth remembering that once a bank has reached that stage, its options to meet liquidity needs are likely to be limited, with all the alternatives potentially also costly to the Deposit Insurance Fund (DIF).[54] In addition, unpredictability around FHLB access can present challenges for banks and supervisors, for example when establishing and assessing contingency funding plans.[55]

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[50] Note the agencies do have other tools outside of the composite CAMELS rating to address issues unrelated to financial condition. For example, the FDIC uses separate rating systems to assess consumer compliance and IT outside of the CAMELS ratings. *See* Federal Deposit Insurance Corporation, Consumer Compliance Examination Manual, Section II-13.1 ("The FDIC assigns consumer compliance ratings to institutions it supervises pursuant to the Uniform Interagency Consumer Compliance Rating System (CC Rating System) approved by the Federal Financial Institutions Examination Council (FFIEC) in 2016 and effective on March 31, 2017."); Federal Deposit Insurance Corporation, Risk Management Manual of Examination Policies, Section 1.1 ("IT operations are rated in accordance with the Uniform Rating System for Information Technology (URSIT), which is based on an evaluation of four critical components: audit; management; development and acquisition; and support and delivery.").

[51] *See also* Federal Housing Financing Agency, FHLBank System at 100: Focusing on the Future, p. 34-35, 107-108 (hereinafter "FHFA Report").

[52] Among other reasons, unlike the Federal Reserve, the FHLBs must issue debt in order to fund advances to banks.

[53] FHLB advances are fully collateralized, have "superlien" authority (*see* 12 USC § 1430(e)), and receive priority in bank failures (*see* 12 USC § 1821(d)(5)(D)(iii)). *See also* FHFA Report, *supra* note 51, at 22 ("The FHLBank System did not incur losses on its advances to [the banks that failed in 2023]. … The broader financial system, however, incurred losses because of these failures . . . Costs to the financial system of failed entities may be borne by the FDIC and the National Credit Union Administration (NCUA) when they pay off outstanding advances.").

[54] It is possible the alternatives may be limited to some combination of borrowing from the Federal Reserve (which also stands before the DIF in a resolution), brokered or listing service deposits (which are generally FDIC-insured), and selling off valuable pieces of the business (which can erode franchise value). Of course, if the risk of bank failures were to increase, that could significantly increase the expected costs to the DIF. That all being said, the FHFA's stated intent to study the practice of charging prepayment penalties to the FDIC after a bank fails was encouraging. *See* FHFA Report, *supra* note 51, at 36.

[55] *See, e.g.,* Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency, Addendum to the Interagency Policy Statement on Funding and Liquidity Risk Management: Importance of Contingency Funding Plans (July 28, 2023).

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Putting this all together, one can imagine a sequence of events like the following: a bank experiences an adverse event, resulting in its FHLB cutting off funding, resulting in its primary regulator downgrading its CAMELS ratings, resulting in the Federal Reserve moving the bank to secondary credit, resulting in the bank's external auditor concluding the bank lacks the capacity to hold its HTM securities to maturity, resulting in the bank's tangible common equity ratio plummeting, resulting in the external auditor issuing a public going concern opinion, which sparks a loss of confidence in the bank that leads to its abrupt and disorderly failure.[56] As a practical matter, this final outcome is often avoided because individuals along the line prioritize avoiding an unnecessary bank failure, but we should not assume that will always be the case.

If a bank is insolvent or does not have a viable future, authorities should move swiftly and decisively to put the institution into receivership. But weak banks can and often do survive and recover,[57] and we should be thoughtful in considering policy choices that may further cripple wounded institutions and reinforce the procyclicality of our current system.

[56] Of course, there are many possible permutations of this type of chain of events and various other events (such as downgrades from ratings agencies) that can also contribute to a downward spiral.

[57] *See supra* note 43.