

Exchanges at Goldman Sachs

All about bank(panic)s and the implications for policy

Daniel K. Tarullo, former Chairman, Federal Reserve Board's Committee on Supervision and Regulation

Thomas Hoenig, former President, Federal Reserve Bank of Kansas City, and former Vice Chairman, Federal Deposit Insurance Corporation

Gary Gorton, Professor, Yale School of Management

Allison Nathan, Senior Strategist,

Goldman Sachs Research

Recorded: March 28, 29 and April 6, 2023

Allison Nathan: The recent banking turmoil in the US and Europe, triggered by the failure of Silicon Valley Bank, the largest bank failure since the 2008 financial crisis, seems to have calmed. But questions remain about whether banking stress could re-surge and what policymakers can do to prevent that. I'm Allison Nathan, and this is Exchanges at Goldman Sachs.

On this special episode, we're breaking down our most recent Top of Mind report, now available on GS.com. We speak with former banking regulators and experts who have lived through banking crises: Dan Tarullo, former

chairman of the Fed's committee on supervision and regulation; Tom Hoenig, former president of the Federal Reserve Bank of Kansas City and vice-chairman of the FDIC; and Gary Gorton, professor at Yale University, who's written extensively on bank panics.

We first asked about the nature of the crisis and whether it differed at all from past crises. As our bank analysts have described on recent podcasts, banks faced deposit outflows last year as companies found it more difficult to raise cash in an environment of sharply rising interest rates. To meet those outflows, Silicon Valley Bank sold long-term treasuries it held on its balance sheet at a loss, since the value of those securities had plummeted as interest rates rose. A capital raise to cover those losses failed, and a significant run on deposits occurred, causing the bank to fail. And indeed, Tarullo describes the recent crisis as a textbook bankrupt. Here he is.

Dan Tarullo: In broad terms, there was nothing unusual about this bank run. That is, the bank run proceeded exactly as textbooks suggest bank runs proceed. There's a question raised with some piece of information provoking the question or the uncertainty on the part of

some depositor. And the depositor says, “You know what? I'm going to get my money out first, and I'm going to ask questions later.” And other depositors have a similar reaction.

Here, instead of other depositors seeing their fellow depositors lined up outside the bank waiting for their money, here we had venture capitalists calling all the firms in which they had investments, saying, “If you've got any money in Silicon Valley Bank, get it out.” And we had social media. So it was a much accelerated process, but the dynamic was eminently familiar, which is, on the basis of some information, it is rational for depositors to pull their money out. And that happened in small deposit amounts with banks in the 1920s and '30s and now it of course happens with the uninsured deposits.

Allison Nathan: We then turned to Gorton for more context on why and how bank panics occur in the first place.

Gary Gorton: Banking panics and financial crises, synonymously, are due to bank runs. So banks are firms that issue short-term debt in various forms, and those

forms of short-term debt are vulnerable to withdrawals or failure to roll over the loan. And this problem exists in all market economies throughout history, in developed economies, emerging markets, economies with and without central banks, with and without deposit insurance.

And so there was a brief period in US history, 1934 to 2007, where we didn't see a bank panic, and that was because the dominant form of short-term debt was demand deposits, and that was insured. And starting in 2007-2008, we see that the system is morphed to be significantly more of a wholesale system.

So, for example, in 1984 or so, about 75% of all deposits were insured. And today, only about half are insured. And so uninsured deposits are vulnerable to runs, and this is no surprise -- except to the Fed, I guess.

Allison Nathan: We then dig into who or what was responsible for the recent crisis. Tarullo believes that the primary responsibility lies with bank management, but he also thinks it's apparent that the recent crisis was a failure of supervision. Who or what was responsible for this stress?

Dan Tarullo: Well, in the first instance, the responsibility lies with management. And from what we know, there was a very inadequate handling of the liability side of SVB's balance sheet. But beyond that, obviously, everyone is interested in the ways in which supervision and regulation fell short of anticipating the problems at SVB and then containing them at an early enough stage so that we didn't have the kind of contagion that the government appeared to fear was occurring.

And a good bit of the story, I think, remains to be understood, to be honest. But I do think a couple of things are already reasonably apparent. One, there was a supervisory failure of some sort. Any time a bank grows four-fold within just a few years, that should be a warning sign to the regulators because oftentimes rapid growth outstrips the risk management capacities of the institution.

The top ten depositors at Silicon Valley Bank had an aggregate of \$13 billion, with a b, in deposits. Under those circumstances, for that \$200 billion bank, 10 depositors accounting for 13 billion of uninsured deposits, it's not a stretch to say that's an unusual or an anomalous

situation. It's also not a stretch to say somebody should have noticed that beforehand and zeroed in on what kind of vulnerabilities had been created.

But it's important to note that there are multiple ways in which the supervisory process can fail. The most obvious is that the group of people at a particular reserve bank or a particular regional office of the OC fail to do the kind of job we expect them to do. They don't look at things they should look at. They are slow to react. Something of this sort.

The second kind of supervisory failure is one in which the overall supervisory policies that have been set in place by the agency as a whole -- in this case, the board of governors of the Fed -- themselves fall short of what's needed. And that could either be because of a message from the top to go a little easy on banks, or it could be because the supervisors hadn't yet identified some new vulnerabilities that the onsite teams needed to be looking for.

And the final kind of supervisory failure is one in which the dedicated supervisors do identify a problem, but then they

fail adequately and quickly enough to follow up to make sure the bank has taken appropriate remedial steps. So based on what we know to this point, it does seem as though that last form of supervisory failure was, at least to some degree, present. We know that the supervisory team from the San Francisco Fed did identify some of the very issues which clearly lay at the heart of the Silicon Valley Bank's failure, but it appears -- and I underscore "appears" -- that they may not have followed up quickly enough, given the magnitude of the problem and the fast-growing nature of Silicon Valley Bank.

Are there any of those other forms of supervisory failure present? I suspect that there is an element of direction from the board of governors over the last four or five years to pull back some on the supervisory process generally. And that general effort to relax the supervisory culture I think probably did play a role here.

Allison Nathan: Hoenig agrees that primary responsibility lies with banking management, followed by supervisory failures, but he also blames easy monetary policy.

Tom Hoenig: Ultimately, the bank management should have managed their organization appropriately, and had they done so, they would have had more capital, number one. Number two, the supervisors, in watching some of the hearings and in some of the reports, were aware that Silicon Valley Bank was at greater risk and did actually cite them for it. However, I think the questions that will follow is why wasn't there a written agreement signed? And why wasn't the board of directors put on notice through that written agreement that they had a high-risk problem?

I think monetary policy errors were also a major contributor to this scenario. You cannot have a monetary policy that has effectively a zero or very low interest rate for over a decade and then change the equilibrium from a zero rate environment across an economic system the size of the US or the complexities of the US economy and not have adverse consequences.

And so understand that we had a crisis in 2008.

Understand that. But in 2010, the Federal Reserve engaged in quantitative easing in a recovering economy. I understand that the pandemic, there was a major crisis

and therefore you intervene. However, following the crisis, for well over a year, you engaged in a zero interest rate policy and increasing the base money supply \$120 per month. And then you decide that you've got an inflation process, so you increase interest rates by a factor of 20 or more. You're going to get really bad outcomes, and we did. That was predictable, and that's a monetary policy error that we're now paying for.

Allison Nathan: Gorton, however, doesn't agree that the blame mostly lies with bank management. Instead, he blames a broad lack of understanding among academics and policymakers about financial crises and what causes them.

Gary Gorton: It's very easy to blame bank management. I don't think it is bank management as a general rule. Any time something happens at a financial firm, that's the answer. "The management was terrible and they engaged in moral hazard," end of story. That's not an explanation of anything.

Allison Nathan: So who is to blame for the recent stresses?

Gary Gorton: I think there's just a lack of clarity on what a financial crisis is and what causes the event. But it's not complex. It's short-term debt. That's simple. Go find it. That's the hard part.

Allison Nathan: All that said, these events have pushed the Dodd-Frank regulatory framework that came out of the global financial crisis into the spotlight. In particular, they've raised the question of whether recent exemptions of smaller banks from some of the stripped federal oversight that Dodd-Frank required contributed to the recent crisis. But Gorton, for his part, believes that Dodd-Frank never had a chance of preventing the recent crisis because it didn't address bank runs. Here he is again.

Gary Gorton: Dodd-Frank might have had some good things but had nothing to do with bank runs. The fact of the matter is uninsured deposits are vulnerable to runs. It's that simple.

Allison Nathan: Hoenig believes that Dodd-Frank was generally more form than substance but doesn't think the recent changes made in 2018 had much to do with the

recent crisis.

Tom Hoenig: Dodd-Frank legislation was a substitute for what I'll call good market practices, which would have required substantially more capital in the banking industry and therefore left the industry weaker than it otherwise would have been. And in place, it put, for example, provisions requiring living wills of the largest institutions, including regional institutions, which are exercises in what I'll call, at best, contingency planning but turned out to be a very substantial paper exercise which were in fact thousands of pages long. Dodd-Frank was meant to check a box, and therefore I think left a lot of issues not dealt with. And therefore, we ended up with more form than substance, and I think the stress tests, while valuable, were thought to be more useful than understanding that we cannot predict where problems come from.

So what Dodd-Frank did was give you a false sense of security that you have a new regulation rather than a substantive change which would have required substantially more capital of the industry. And I think would have slowed the growth, for example, in a couple of the recent banks that did fail and might have given them a

stronger base to survive the stresses that they had to encounter. But there's nothing in the changes that were made in 2018 that keeps bank examiners or their supervisors from looking at the quality of bank assets, requiring more capital should the asset be higher risk, and there's nothing that kept the bank supervisors, when Silicon Valley Bank's unrealized losses were mounting and they were reported in the June 2022 reports, the size of the unrealized losses, for them to say, "Hey, we have a potential issue here. You need to be thinking about your capital accounts and strengthening those."

There's nothing that kept the supervisors from doing that, and therefore I think that is a red herring.

Allison Nathan: Tarullo, who actually opposed Bill S 2155 that made the 2018 exemptions, also doesn't see a strong direct connection between it and the failure of Silicon Valley Bank. Some observers have argued that these events were the result of the 2018 rollback of Dodd-Frank in exempting some of the smaller institutions from strict federal oversight. You opposed that rollback. What's your response to that? Do you think that played a factor here, and could it have prevented these events?

Dan Tarullo: At first, you rightly note that I was opposed to S 2155 as it stood on the eve of passage. I thought it went way too far in raising the threshold for banks that would get special kind of regulation. 250 struck me then and strikes me now as too high. And indeed, I think one could say that the legislation was based on the false premise that banks of between 100 and 250 billion dollars of assets as a group are not systemically important. And indeed, the recent events have proven the point that, as a group, they are systemically important.

So the legislation I think was ill advised, and it may have contributed to a kind of sense that the regulators, "Gee, we should ease up on the banks between 100 and 250 billion in supervisory and regulatory terms."

Having said that, I myself don't see a strong direct connection between S 2155 and Silicon Valley Bank's failure. And I say that because, first, based on prevailing metrics -- and they may need to be changed -- it appears as though Silicon Valley's capital and liquidity coverage ratios may have been well within acceptable range had they been subject to full requirements for the liquidity coverage ratio.

Secondly, even had they been required to be in the stress test a year earlier, which they would have been under the old system, the nature of the Fed's stress test over the last couple of years would not have uncovered their vulnerabilities. The Fed moved to a single scenario stress test. And last year, that scenario posited a reduction in interest rates. And so the kinds of stress to which Silicon Valley was subject, as the Fed raised interest rates, would not have shown up in the results last year.

But that's not to say that the supervisory gap is not very problematic. And it's also not to say that there may have been a need to change regulations, to apply them in a more discriminating way to certain kinds of banks within a particular size and group of banks. And the Fed had a lot of authority to do that, and it basically chose not to exercise that authority.

Allison Nathan: So what regulatory changes could strengthen the health of the banking sector and prevent recent events from repeating? Tarullo advocates for more robust stress tests, a review of liquidity rules, and more mark-to-market requirements for bank asset portfolios.

Here he is again.

Dan Tarullo: I do think that it's a way better system if we have every bank with over \$100 billion in assets participating in the Fed's stress test every year and if that stress test has multiple scenarios to test for different kinds of vulnerabilities. I don't know whether banks would need to have higher capital levels. I'm just saying that they ought to be subject to a more rigorous assessment of their capital positions. So that's number one.

Number two, we need to look at liquidity regulations. I'm for that regardless of Silicon Valley Bank. I've been worried about the impact of the liquidity regulations not just on midsized banks but on larger banks as well. We want to make sure that those regulations both protect the banks and the public and allow the banks to perform their intermediating role.

The other thing I think is pretty clear is we have to do something about the absence of mark-to-market requirements for these big portfolios of securities that larger banks hold. It seems to me it's something close to a no-brainer to say that any securities in the available-for-

sale portfolio need to be mark to market. There doesn't seem to be any good reason why an available-for-sale portfolio of securities shouldn't be marked.

I think it's a somewhat more difficult question to decide what to do about the hold-to-maturity portfolio. And I think if you had asked me five years ago, I probably would have said, sure, we ought to mark that one as well. The only thing that gives me some pause here is the continuing concerns about the health and robustness of the treasury trading markets. And so I just think we need to pause a bit before we say let's mark everything in the hold-to-maturity book because, if that turns out to be a significant disincentive for large banks to hold treasuries, we may be exacerbating this issue that the InterAgency Group and many academics and market participants have been concerned about for some years now.

Allison Nathan: Should there be more blanket guarantees of deposits?

Dan Tarullo: I think it's important for us, before we start talking about raising the deposit limit or de-guaranteeing all deposits, to do two things. One, to get a

better handle on what the deposit profiles of other banks are. And that requires more than just looking to see how many uninsured deposits they have because you need to know the distribution of them. You need to know what the nature of those deposits, are they used by a company that needs a bank because they're paying people? Whatever it is, we need to have a better sense of that, number one.

Number two, especially in light of the FDIC's revelation about the concentration of deposits at Silicon Valley Bank, we shouldn't delude ourselves that raising the deposit limit to \$500,000, for example, is going to do anything about the kinds of runs we're worried about. Which means that, if you're talking about deposit protection as the, quote, answer, closed quote, you're really taking on a much bigger change in the nature of the government's relationship to the financial system. And unless legislators are willing de facto to have a substantial public subsidy of the insured depository institutions, something has to go up. The premiums charged by the FDIC would have to go way up. The capital requirements imposed by the banking agencies in order to offset the fact that depositors really won't care anymore about the condition of the bank. Something will have to change substantially unless Congress is prepared

to provide a public subsidy to the banks.

So I think this is a very important debate, and it seems to me as though there are likely to be multiple ways of addressing the problem of a large concentration of highly runnable uninsured deposits. And that full deposit insurance is only one of those.

Allison Nathan: Hoenig, for his part, thinks higher capital requirements that focus on different ratios would better prepare banks for unexpected problems.

Tom Hoenig: Today, we talk about the banking industry being extremely well capitalized. I wish that were true, but saying it doesn't make it so. And these banks are still 6% capital to assets. And remember in the Great Financial Recession, the industry lost 6% of its capital. So I consider that better but not necessarily adequate to the risk of this highly leveraged industry that it encounters.

Allison Nathan: And so what would be adequate?

Tom Hoenig: Various studies suggest a range. I have said in the past at least 10% equity to assets. Preferably,

the studies show somewhere in the neighborhood of 15%. The Brown-Vitter bill that was proposed following the Great Recession, which never went anywhere, said 15%. And, yes, that raises the capital requirements, but it also raises the safety of the industry.

And while there is an argument that I know the industry makes that that would slow loan growth, on the other hand, there's an argument that suggests that reduces the cost of capital because you have a safer industry, number one. And number two, on balance, it actually gives you more staying power when the economy goes into a recession, which it inevitably does. And it also, on the margin, when you have to charge a higher rate to cover your capital costs, you actually discipline out the very highest risk activities and therefore reduce the likelihood of a crisis. And so there's evidence that suggests 10-15% is a more appropriate number.

Allison Nathan: Do you think we should be focusing on equity capital ratios instead risk-weighted capital?

Tom Hoenig: It's no secret that I have issues with risk-weighted capital. I think it misleads. For example,

there's really no capital necessary to fund your growth in government securities. The risk weight is at zero or very low. And in the case of Silicon Valley, for example, had you required more capital in terms of the simple leverage ratio - equity to asset -- it would have had a slowing effect on their growth because, for every dollar that they'd want to grow, they'd have to fund it with some of their own money, up to 10 or 15% if you had higher numbers. And that would, of course, give you a safer industry overall for the regional banks, for example, and for the larger banks. So I just think it's focus on the leveraged ratio, focus on how much equity you have to absorb the unexpected, and it's always the unexpected that becomes the crisis problem, whether it's subprime loans and everyone thought they were just great or government securities and duration risk that people did not think would see a major increase in rates, up to almost 5% in a year.

So those are the sorts of things that people don't anticipate. And that's why you have strong capital. And that's why they need strong capital going forward because there are going to be, I suspect, other problems that surface. You have roughly \$23 trillion of banking assets in the United States, and you had one bank of 200 billion that

caused this kind of disruption. So it's reasonable to expect that there are other weak points among the remaining 23 trillion of assets that you need to be mindful of. So the industry has to consider should we strengthen our capital so that, on these uncertain times, we're better prepared for the unexpected?

Allison Nathan: Gorton, though, argues that higher capital and liquidity requirements can't solve everything. Instead, he thinks that policymakers should consider insuring more uninsured deposits. Until that happens, he says more financial crises are likely.

Gary Gorton: You can't solve everything with more capital and tying up more high-quality assets. There's a huge demand for safe assets out there. And you say, well, every short-term thing has to be backed by a safe asset, but there's not enough safe assets for that and so we don't want that because we don't want to drive issuing short-term debt into the private market. That would not be good.

These solutions are not good solutions. And I don't think you want to adopt solutions that push the risk out of the banking system into the shadows. I think insuring the

uninsured deposits seems like something to take very seriously because the alternative is let's just have the risk of bank runs.

Bank crises have been the norm in American history. For most of American history, we just have a big financial crisis every ten years or so. And in that sense, I think the problems out there are problems that are going to lead to more financial crises. Stable coins, uninsured deposits, some new form of short-term debt, a variable denomination, floating rate notes. There's all sorts of things that could lead to a financial crisis. So the system is not as compact as it used to be, where the main thing was household deposits, we insure those, and then we just claim victory that there's never going to be another financial crisis. So that turned out to be wrong.

And the idea that we're going to have more capital requirements and more liquidity requirements and that's going to solve the problem, that's going to be wrong. The idea that we can seal off the banking system from crypto, that's going to be wrong. So why is the government doing so many wrong things? I think it's because they don't have clarity about what the problem is.

Allison Nathan: And so what do you think policymakers should do at this point?

Gary Gorton: I would do three things. I would seriously investigate insuring uninsured deposits with the caveat that we only want to insure the transaction component. So if it's not a transactions component, you're not going to put it in the bank deposit. That's the first thing I would do.

The second thing I would do would be to bring some crypto stuff into the regulatory arena, like OCC tried to do with fintech charters.

And the third thing I would do is I would get serious about a central bank digital currency which is not going to be vulnerable to runs. And that would eventually run stable coins out of business. You've got to remember every country on Earth, 100, 150, 200 years ago decided that the government should have a monopoly on the production of circulating money.

Stable coins are the first time since before the Civil War

that we see privately produced money. And so why do we have to relearn everything? You know, I mean, there's a famous saying that knowledge in physics and chemistry is cumulative. Knowledge in economics is cyclical. We just have to relearn everything. So we're going to have to have a big financial crisis, and then everybody's going to go, "Why did we let these guys produce money? We shouldn't have been doing that."

Allison Nathan: Tarullo is similarly concerned about the possibility of another shoe dropping. He warns that regulators need to think seriously about where the banking system is headed, which mean bring a new set of challenges for the industry. Here he is again.

Dan Tarullo: None of us should be so bold as to foreclose the possibility of another shoe dropping. There are presumably other portfolios that haven't been marked to market, that have undergone the same impact from the Fed interest rate increases as SVB's was, particularly longer dated portfolios. So we really shouldn't foreclose that as a possibility.

But putting that possibility aside, I think that the

regulators, the treasury, the justice department, the administration, everybody, they all need to be thinking about where the financial system and the banking system specifically in the United States are headed. And what Silicon Valley Bank has done, I think, is to put front and center the question of the business model viability of banks between roughly \$50 and 250 or 300 billion.

To the extent that the an analysis suggests that business model may be vulnerable in some of the same ways that the community bank business model is vulnerable and that scale has become so important, then the policymakers are going to need to say, “What are our responses going to be? Are we going to say, oh, we better lighten up on these banks so that they don't have high regulatory costs so that they can continue to compete?” You can do that, but that brings along the kind of risks we've seen in the last several weeks.

Are we instead going to say, “No, we have to insure financial stability,” but as a result of that, the bank's medium-term prospects are just diminishing. And if the latter is going to be the case, what's going to be the attitude towards mergers and acquisitions? You can imagine

saying, “Gee, we're still worried about the multi trillion dollar banks acquiring other banks of even 100 or 200 billion in assets, the too big to fail goes to too bigger to fail.” But how do we feel about several of them merging? I think that set of issues about the dynamics of the industry needs serious thought before a lot of these policy questions are fully answered.

Allison Nathan: With questions about how banking stresses will evolve and the implications for policy sure to remain in focus, we'll continue to keep a close eye on it. I'll leave it there for now. If you enjoyed this show, we hope you follow on your platform can choice and tune in next week for another episode of Exchanges at Goldman Sachs. Make sure to like, share, and leave a comment on Apple Podcasts, Spotify, Stitcher, Google, or wherever you listen to your podcasts.

And if you'd like to learn more, visit [GS.com](https://www.gs.com) and sign up for Briefings, a weekly newsletter from Goldman Sachs about trends shaping markets, industries, and the global economy.

This transcript should not be copied, distributed, published, or reproduced, in whole or in part, or disclosed by any recipient to any other person. The information contained in this transcript does not constitute a recommendation from any Goldman Sachs entity to the recipient. Neither Goldman Sachs nor any of its affiliates makes any representation or warranty, express or implied, as to the accuracy or completeness of the statements or any information contained in this transcript and any liability therefor (including in respect of direct, indirect, or consequential loss or damage) are expressly disclaimed. The views expressed in this transcript are not necessarily those of Goldman Sachs, and Goldman Sachs is not providing any financial, economic, legal, accounting, or tax advice or recommendations in this transcript. In addition, the receipt of this transcript by any recipient is not to be taken as constituting the giving of investment advice by Goldman Sachs to that recipient, nor to constitute such person a client of any Goldman Sachs entity. This transcript is provided in conjunction with the associated video/audio content for convenience. The content of this transcript may differ from the associated video/audio, please consult the original content as the definitive source. Goldman Sachs is not responsible for any errors in the transcript.