

## **EconoFact Chats: Why Do Banks Fail?**

**Jeremy Stein, Harvard University**

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### **Michael Klein**

I'm Michael Klein, executive editor of EconoFact, a nonpartisan, web-based publication of the Fletcher School at Tufts University. At EconoFact, we bring key facts and incisive analysis to the national debate on economic and social policies, publishing work from leading economists across the country. You can learn more about us and see our work at [www.econofact.org](http://www.econofact.org).

### **Michael Klein**

Silicon Valley Bank and Signature Bank failed in March 2023. First Republic Bank was seized and sold off by government regulators on the first day of May. The \$532 billion of assets of these three banks exceeds that of the inflation adjusted value of \$526 billion of the assets of the 25 banks that failed in 2008. There is a question of whether the failures of these three banks are only the first of other bank failures, or if the crisis can be contained. There are also concerns that, just as the 2008 bank crisis contributed to an economic downturn, these contemporary bank failures will also cause a recession. Why are banks subject to failure? Can policies help to make them more stable? And have they? To talk about these issues, I'm very pleased to be speaking today with Jeremy Stein. Jeremy is a professor at Harvard University. He was a member of the Board of Governors of the Federal Reserve from 2012 to 2014, and during the global financial crisis, served as a senior advisor to the Treasury Secretary, and on the staff of the National Economic Council. Jeremy, welcome to Econofact Chats.

### **Jeremy Stein**

Thanks, Michael. It's nice to be with you.

### **Michael Klein**

Jeremy, what happened at Silicon Valley Bank, and what does that tell us about bank fragility?

### **Jeremy Stein**

Well, the short story is that Silicon Valley Bank was vulnerable due to a combination of two factors. First of all, it had large losses on its holdings of long-term securities, think of basically treasuries and mortgage securities. And second, and importantly, virtually all, something like

92% of its deposits were uninsured. That is to say, they were not insured by the FDIC, which is highly unusual. So to see why you need both of these things kind of at the same time, note that sort of a more traditional bank with insured deposits – if its depositors are both sticky, that is to say they don't leave, and sleepy, that is to say they'll accept a close to zero interest rate on their deposit even as market rates rise – if you have those, the fact that you have market value losses on your securities or on your assets more generally need not be damaging because the value of the deposit franchise actually goes up when interest rates go up. In other words, it's a better deal to take deposits at zero and be able to reinvest them at 5% than it is to take deposits at zero and only be able to invest them at 1%. So the two tend to offset each other. One simple way you see this is historically, if you look at banks and you look at their net interest margins, those net interest margins tend to be quite stable even as market interest rates move around. So again, banks tend to be hedged, and the assets are not the whole story, but of course if the deposits can leave or reprice, then you've got a problem because then you have to actually sell the assets at their reduced market value and that's when you get the potential for a self-fulfilling run.

### **Michael Klein**

So I like those labels of sticky and sleepy depositors, not something you see in bank advertisements, although I guess it would really like them.

### **Jeremy Stein**

Well, of course, bank advertising is very, very geared towards – and the whole bank economic model – is really geared towards keeping your depositors sticky and sleepy. I mean, that's what makes the whole thing work. That's what differentiates a bank from a hedge fund. A hedge fund obviously has real problems if the market value of its assets fall, because all its liabilities are at market rates, and they're not at all sticky, but that's really kind of the key difference.

### **Michael Klein**

So is that why banks traditionally were built like small Roman temples – to make people confident and sticky and sleepy?

### **Jeremy Stein**

Yep. I mean, my 90-year-old mother is in a sense the perfect bank customer. She has a fair amount in her checking account at PNC Bank and she goes into the branch two or three times a week. She chats with the tellers. They help her do her stuff, and she'll happily take zero even as market rates go up. But I think for people like her, they've built, as you say, they banks spend 2% of their assets every year on bricks and mortar, and it works very well with people like my

mother. The question is how well it will work going forward, especially now that a bunch of these sleepers I think have been pretty rudely awakened by the events of the last couple of months.

**Michael Klein**

So your mother probably doesn't have more than \$250,000 in her account, although maybe she does, I don't know. But a lot of people at Silicon Valley Bank did. Why is that?

**Jeremy Stein**

I think most people, sophisticated and otherwise, assume that when you have a deposit in a bank, it's money good. And that assumption has been generally true. Even when banks fail, it has been – whether you like it or not – it is an empirical fact about the world that uninsured depositors with rare exceptions don't take losses.

**Michael Klein**

And in fact, that's what happened ex-post, right? The uninsured depositors were made whole.

**Jeremy Stein**

Absolutely.

**Michael Klein**

So depositors didn't have their eye on the ball; it turns out they didn't really have to, I guess, because ex-post, they were made whole. But shouldn't the management of Silicon Valley Bank have recognized the riskiness of their portfolio and hedged their exposure to prevent such a scenario from playing out?

**Jeremy Stein**

Well, yeah, of course. I mean, it's a terrible failure, not just on the part of management, but certainly a failure on the part of management. Just worth noting, you can sort of understand, not to excuse it, but you can kind of understand how they were goaded into that failure. You know, they're basically awash, as you said, in large deposits. They grew very, very quickly because they were getting huge deposits in many cases from people running tech firms. Now, what do you do when you're getting all these wonderful zero interest rate deposits? Well, in a world, if we had imagined counterfactually that interest rates on short-term securities were 5%, they could have

happily parked the zero deposits in 5% securities, done really well for themselves, and that would have been the end of it. Unfortunately, during much of this period, short-term interest rates themselves were near zero, and they have bricks and mortar to pay for, and other costs, and so they just couldn't cover their expenses without taking some interest rate risk. Again, not to excuse it, but I think the low interest rate environment was part of what goaded them into being what clearly was reckless in terms of their risk management.

**Michael Klein**

I've also heard that Silicon Valley Bank didn't have a risk manager in place for a very long time.

**Jeremy Stein**

Yeah, I don't know about that, but I suspect that even if you were trying to be a risk manager at a place like that, you might get overrun by the incentive, basically, they had to reach for some extra return, and of course they surely underestimated the damage that could do.

**Michael Klein**

Well, what about the government regulators? It seems that after 2008, they should have been more focused on bank fragility.

**Jeremy Stein**

Absolutely. As I said, in spite of the fact that a lot of blame goes to Silicon Valley Bank management, there's also quite a bit of blame to assign to the regulators. I think the one question that's not entirely clear, to me, at least at this point, is how much of it represents a regulatory failure in the sense of the rules on the books, as opposed to a supervisory failure going beyond the rules on the books and looking at what the management is actually doing. My guess is there will be some good opportunities for regulatory reform, but at the same time, I suspect that the supervisory failure is really front and center in this story. In fact, we know that the local supervisors inside the bank had raised a number of concerns and various memos, matters requiring attention, and so forth were raised. What seems to have happened, unfortunately, is that in spite of those memos, the process was just too slow and not strong enough, and really nothing was forced to change, even though some of the weaknesses were clearly spotted.

**Michael Klein**

As I mentioned at the outset, these banks had a lot of assets, and under prior rules, they would have been deemed systematically important financial institutions, SIFIs. SIFIs are subject to

greater scrutiny, but the threshold was changed from \$50 billion to \$250 billion in assets, so these banks [were] no longer under the rubric of being a SIFI. The regulators still had an opportunity to supervise these banks and look at the books, but do you think it was important that the SIFI threshold was changed and so they didn't automatically get supervised as much as they might have?

### **Jeremy Stein**

Well, look, I think the changing in the threshold was certainly symptomatic of a broader attitudinal change or swinging of the pendulum back towards a, maybe we might call it a slightly more relaxed attitude, which was unfortunate, and not a good thing. Whether some of the specific rules that they would have faced had they maintained the stricter stress testing and all, whether those would have made the crucial difference, is a little less obvious to me. So, for example, had they been stress tested annually, as they would have been under the prior rule, that would have unfortunately not made a difference because the Fed stress test did not contemplate a meaningfully higher interest rate scenario. Again, I absolutely buy the premise that there's going to need to be a fresh look at the whole set of regulatory tools applied to these guys. I think it's a little too easy to just say, oh, had we not had this 2018 rollback, things would have been okay. And again, I think you just need to be careful in assuming that regulation itself, no matter how well-intentioned or how well-written, is ever going to really be a full solution to the problems. You write a rule in stone, then you go away, then the banks have at it, and they optimize. There's no way a rule by itself is going to catch every contingency. Hence, the importance of really vigorous, active supervision that responds with a bit more agility to conditions on the ground. And I think one of the real stories of the last several years is not only regulatory, but it's the weakening, the disempowering of supervision.

### **Michael Klein**

What about contagion? Signature Bank failed soon after Silicon Valley Bank and after Silvergate Bank self-liquidated. Some people argue that Signature Bank was a victim of contagion; concerns were ignited by the failure of these other banks, and it was swept up in this pessimistic wave. But an FDIC report from the end of April said that its collapse was due to poor management. What's your view of what happened with Signature Bank?

### **Jeremy Stein**

Well, I think there's always some degree of contagion in the sense that even when a very weak bank gets run on, it's not clear exactly when it's going to happen or what the trigger will be. So two things can simultaneously be true. It can be true that the banks that are run on, you can really see it in the fundamentals. Again, the common fundamental in all of these cases is large losses

due to interest rate increases on their books of securities, and a relatively large fraction of uninsured deposits. That's a real fundamental. Now the timing is not coincidental. Once it happens to one, then people start looking very carefully at others who have a similar profile. So there's contagion in that sense, but it shouldn't be taken to mean that if the first one hadn't failed, the others were all just totally fine.

### **Michael Klein**

So you talk about fundamentals. Was that true for First Republic as well? It was the second largest bank failure in US history.

### **Jeremy Stein**

Yeah, I mean, again, I think all of these guys had this common profile to some extent, of large losses, just simply due of nothing else to rising interest rates, as well as a large fraction of uninsured deposits. Basically, if you wind banks up on those two metrics together, it's going to be the interaction of the two that gives you a very good sense of who's vulnerable.

### **Michael Klein**

So as you mentioned, people withdrew their money from these banks because the deposits were in excess of the \$250,000 insured level. But all the depositors were made whole when regulators invoked the systemic risk exception. Do you think it was a good idea to protect depositors in this way?

### **Jeremy Stein**

Well, look, there's always going to be some discomfort, and it's completely understandable, of course, to see very wealthy people made whole when they weren't supposed to, in some sense, be made whole. I think with the benefit of hindsight, you can see very clearly the dilemma that the Fed and the FDIC were in, which is exactly that there are other banks exposed, there's been real concerns about contagion. I think they were unfortunately backed into a corner and had really little choice. That doesn't mean you don't want to do things going forward that make it less likely that you get backed into this corner. I think one thing we've learned, again, for better or for worse, I'm not putting a value judgment, but for better or for worse, uninsured depositors tend to get taken care of. If you just take that as a fact about the world, it makes you ask, well, should we limit the extent to which banks can have large fractions of either uninsured or total deposits relative to their assets? For example, you could imagine, in addition to having a capital requirement, banks of this size, much like larger banks, should have long-term debt requirements. In other words, you could imagine, just as an example, 10% of your capital

structure is equity, but another 20% is long-term debt, so total deposits can never be more than 70%. The difference is, of course, long-term debt can't run because it's long-term, and therefore, it's credible to impose losses on it in a way that's harder to do with runnable deposits. I'm not saying we should affirmatively go out and insure all deposits, but policy has to be robust to the reality that, in fact, when push comes to shove, it's very difficult to impose losses on any depositor.

### **Michael Klein**

Not everyone fared as well as depositors, I guess, nor should they. People who held the stocks and bonds of these banks found their holdings wiped out, managers lost their jobs, but perhaps there were some golden parachutes. Is it appropriate that these people suffered financial losses the way they did?

### **Jeremy Stein**

Yes, absolutely. And you just, you know, my previous comment is just to say we need more of that in the capital structure, so there's more loss-absorbing sources of finance and, therefore, more protection if nothing else for the taxpayer in cases like these.

### **Michael Klein**

So I'm very sensitive to economists not wanting to make predictions. I myself try to avoid it, but I'm going to put you in the uncomfortable position now of asking a prediction. Do you have a sense whether this will be it, or if the problems common to these three banks, four if you count Silvergate, are widespread and we'll continue to see bank failures?

### **Jeremy Stein**

Well, a couple of points. I would like to hope that the sort of short-run run dynamics are largely behind us. I think that's likely. It's not a sure thing. In 2008, the FDIC had a much bigger bazooka. They were able to insure, to blanket insure, all transactions deposits in the entire banking system. That's an authority that they no longer have, that Congress took away from them. Now the only way to insure all deposits in the banking system would have to go through Congress. So there is an ongoing vulnerability to this sort of run risk, because really now the only way they have to protect depositors is to invoke the systemic risk exemption after the fact, after the bank has already been run on. So I think there is still some residual uncertainty, but I'm modestly optimistic that the run stuff is behind us. Now having said that, I don't think the broader problem is behind us at all. Even with no runs, even if you had complete insurance of this sector, there's a real problem with the economics, which is if deposits reprice more rapidly than they

have in the past – as I said at the beginning, the entire banking model is predicated not only on depositors staying, but on them accepting relatively low, below market rates of interest. But this has presumably woken up a lot of depositors. There's going to be more, I'm pretty sure there's going to be more deposit repricing than there has been in the past. If that is the case, even if they're not subject to runs, the banks may basically have quite a bit of damage done to their profitability, and there could be a gradual but pretty painful depletion of bank capital. Here I think one potential analogy to worry about is what happened to savings and loans in the late 80s when they had mostly insured deposits. So runs weren't the problem, but interest rate mismatch basically imposed very, very large hits to their profits, eventually ate up most of their capital and led to a bunch of bad decision making and ultimately pretty large costs to the taxpayer. So I think we may be dealing with problems in the banking system over this over a several year period, again, even if we don't have to worry so much about imminent run risk.

### **Michael Klein**

So Jeremy, what do you see as appropriate policy responses given what's happened, and also given what we learned from the savings and loan crisis, and what we learned from the great financial crisis in 2008?

### **Jeremy Stein**

So a couple of things. As I said, there's some reg reform kinds of things. Again, I think one has to take a very careful look at the supervisory process and see what went wrong and how that could be improved. I think there are going to be some natural changes or sort of some relatively low hanging fruit changes to regulation, one being what I mentioned before is the idea of having some long term debt in addition to equity in some of these institutions. You could imagine the FDIC changing its deposit insurance pricing so as to basically impose a bit of a tax, a bit of a Pigouvian tax on uninsured deposits to discourage the use of uninsured deposits and have a higher deposit insurance premium. So there's all of that. And then at the same time, I think the regulators are going to have to potentially contend with the longer run health of the banking system. And in this case, not necessarily the very biggest banks, but the regional and the smaller banks. At some point, we're going to get to a point where there needs to be new capital put into the system. But I think not only new capital, there's going to be a need for some consolidation because if deposits reprice more aggressively than they do, and if that's a feature, that may well be like work from home after the pandemic. Once you learn to do it, you kind of stay with it. So if that's true of the way deposits price, that does real damage to the economic model of a lot of these banks. And this is a harder problem to deal with because I think the short run temptation is going to be more of what you've seen, more reassurance that everything is okay. The banking system is sound, not a lot of appetite to do tough stress testing, that kind of thing. But at some point, I think that the need for that is going to become pretty pronounced.



**Michael Klein**

So that's a discussion of what's happening in the banking sector. What do you see as the consequences for the overall economy?

**Jeremy Stein**

Well, clearly, I think there's going to be some contraction of credit, particularly coming from the regionals and the smaller banks. So that is going to be something of a headwind to the economy. Of course, it's something that the Fed will, as the data comes in, take into account in their interest rate trajectory. So they can, you know, to the extent that the credit crunch is a headwind, the Fed can hike less than it otherwise would or pause. I'm not sure that it is something that has to cause, if it's properly adjusted for, has to cause big macroeconomic damage in the sense of unemployment, output loss. I worry about it more as an allocative issue. Again, you know, the bond market is going to be open. There are going to be a bunch of other things. But of course, that then favors big firms at the expense of small firms. Big firms will be relatively less hurt by a bank credit crunch because they can borrow in the bond market, they have other ways of raising money. This could be quite painful for smaller firms. Again, the Fed can undo some of the macroeconomic effect, but it's much harder to undo the allocative effect, the fact that some industries may consolidate as the big firms gain market share at the expense of smaller firms and all of that. So I think that would be my worry more so than that this is going to really ultimately change the trajectory for inflation and unemployment.

**Michael Klein**

But not 2008, 2009 seizing up of markets, the economy going into a deep downturn.

**Jeremy Stein**

I don't see that at this point. Again, I worry about this more as an SNL or maybe even a Japan kind of scenario where we have, you know, a set of zombie banks, bad lending decisions, a lot of micro distortions. But I think at this point, the overall system is strong enough, and of course the big banks are strong enough, there doesn't seem to be the kind of post Lehman in any way, the kind of post Lehman financial stress to the entire system that that we saw back then.

**Michael Klein**

Well, I always learn a lot in my conversations with you, Jeremy, and thank you very much for joining me today and talking about this really important issue.

**Jeremy Stein**

My pleasure. Thanks for having me.

**Michael Klein**

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