Red Cedar Investment Management

Money and Banking After Silicon Valley

March 5, 2024

Brandon F. Bajema, CFA, CPA
Senior Portfolio Manager

John L. Cassady III, CFA
Co-Chief Investment Officer

Three of the four largest bank failures in the history of the United States occurred in the spring of 2023, representing $550 billion combined total assets, the largest in a single year—ever. These bank failures, the events leading up to them, and the regulatory response to them represent a watershed moment in the history of banking. Events such as these have happened countless times in not only American history but in the history of fractional reserve banking globally, including at least four times in the last 40 years in the United States alone. Each crisis brings about changes in the ways banks are managed, organized, funded, regulated, and capitalized. We at Red Cedar Investment Management (RCIM) believe that understanding these changes will help us navigate the next crisis. In fact, oftentimes such changes lead directly to the next crisis.

Below, we present four questions that explore ways in which we believe the banking system has fundamentally changed.

1. **Has the proliferation of mobile banking and social media forever changed the nature of bank runs and the value of deposit franchises?**
   a. The proximate cause of the bank failures were concentrated deposit bases owing to large private wealth business
   b. Mobile banking and social media impacted the speed of the bank runs but were not the proximate cause of the runs
   c. If you had a funding profile similar to SVB's at the start of 2023, you no longer exist as a standalone bank in 2024

2. **Has the FDIC implicitly insured all depositors systemwide without limit?**
   a. The FDIC took a nearly $16 billion hit to insurance fund when it guaranteed $400 billion of deposits
   b. Not one depositor lost a single nickel, and the vast majority of the deposits were uninsured
   c. The tide toward systemwide depositor insurance has been moving in this direction for decades

3. **Did the Bank Term Funding Program (BTFP) change the Fed's function as lender of last resort?**
   a. The BTFP turned the old adage of lending freely against good collateral at punitive interest rates on its head
   b. Terms of the BTFP allowed banks to borrow well in excess of the fair value of the collateral they presented
   c. Interest rate terms on the BTFP were offered with zero spread to government rates

4. **What is meant by the regulatory term "well capitalized"?**
   a. All three banks reported to be well capitalized just weeks before their ultimate insolvency was revealed
   b. Historically speaking, the 2023 bank failures were not unique in this regard
   c. Banks are highly levered by their nature and their assets are not marked to market

RED CEDAR
INVESTMENT MANAGEMENT

1. HAS THE PROLIFERATION OF MOBILE BANKING AND SOCIAL MEDIA FOREVER CHANGED THE NATURE OF BANK RUNS AND THE VALUE OF DEPOSIT FRANCHISES?

On Wednesday March 8, 2023, Silicon Valley Bank (SVB) announced its intention to raise $2.25 billion of common equity to replenish losses the bank was realizing on the sales of agency mortgage-backed securities. The sales were required to cover deposit withdrawals that had begun a year prior, and up to that point, for all intents and purposes, they were "orderly." Almost immediately upon this announcement, a bank run began. On Thursday March 9, $42 billion of deposits were withdrawn and $100 billion was scheduled to be withdrawn on Friday March 10 before the FDIC intervened during the middle of the day.

To put the speed of this run into context, note that SVB reported $172 billion of deposits as of 12/31/2022, which means that approximately 82% of its deposit base fled or attempted to flee the bank in less than 48 hours. The largest bank failure in the history of the United States was Washington Mutual (WAMU), which failed during the Global Financial Crisis (GFC) in September of 2008. The FDIC took that same action after a nine-day bank run resulted in roughly $17 billion in deposits leaving, which represented approximately 10% of WAMU's deposits.

The run at SVB quickly spread to other institutions, most notably Signature Bank of New York (SBNY), which was put into receivership on Sunday, March 12, and First Republic Bank (FRC), which closed a month and half later, both of which suffered massive withdrawals from their highly concentrated deposit bases. The differences in the speed of the bank runs between WAMU and SVB is staggering. We do not contend that the difference in the speed of the runs was due entirely to the proliferation of mobile banking and social media in the 15-year period between the two events. There are at least two other very important and related differences that account for at least some of the differences in the speed of the run. First and foremost, an estimated 89% of SVB's deposit base exceeded FDIC insurance limits, which is a powerful motivator for a depositor. Secondly, these large depositors were not only concentrated geographically (the Bay area) but were also concentrated in terms of sector of the economy (tech firms). Which meant that many of the depositors were not only impacted by similar macro events, they also knew each other personally and collaborated with one another. In one now infamous instance, many customers were in a group chat with a venture capital investor who advised a large group of customers to take their money out. Did the proliferation of mobile banking and social media accelerate this run? Unequivocally yes, but it is difficult to discount the clear weakness of having a related group of customers such as this constitute such a large percentage of a deposit franchise.

So, has digital and mobile banking forever impaired the value of a deposit franchise? The simple answer is yes as the value of a stand-alone, concentrated, uninsured deposit franchise will be correctly seen as a liability. However, there are several mitigating factors. First and foremost, most other banks in the U.S. do not have even remotely similar deposit franchises to that of SVB. The notable exceptions were SBNY and FRC, both of which also failed in 2023. If a bank had a weak deposit profile in 2023, it no longer exists in 2024.

To put it another way, the deposit franchises of what RCIM would consider to be "regional banks" are very different than the deposit franchises of the failed banks. For one, all the banks we consider to be regional banks were significantly less exposed to uninsured deposits as a percentage of their deposit bases then—and even less so now. But even the very nature of the uninsured deposits was different.

Take First Republic as an example. A simplified version of its business model went something like this: FRC would make non-conforming jumbo loans ($1million +) to high-net-worth individuals at below market rates of interest in return for the borrower keeping their primary deposit relationship with FRC and using FRC's wealth management products. It also gave white glove service to its bank customers that came into its branches that were concentrated in the Bay area and New York City. Does this sound like a typical regional bank business model? No, because it's not. For starters, regional banks have much larger geographic footprints than just serving the two wealthiest areas of the country, and their deposit bases are diversified between both commercial and retail (high net worth and not). Furthermore, the loans these institutions make are at market rates and do not serve as a loss leader to gather uninsured deposits and wealth management business. Finally, their commercial deposit relationships are typically part of deeper relationships, many of which span decades.

In summary, the bank runs in the spring of 2023 were unprecedented in their speed, which has rightly prompted the question of whether the value of deposit franchises has changed materially in the last 15 years since WAMU. We contend that the value of certain deposit franchises has materially changed, but that after the three bank failures last spring, these stand-alone, concentrated, uninsured deposit bases no longer exist and that comparisons between the failed bank deposit bases and those of remaining regional banks are dubious. A related observation from the bank failures is that despite the vast majority of the depositors being uninsured, no depositor lost a nickel. Which brings us to our next question…

2. HAS THE FDIC IMPLICITLY INSURED ALL DEPOSITORS SYSTEMWIDE WITHOUT LIMIT?

The three large bank failures in the spring of 2023 had combined total assets of roughly $550 billion and $420 billion in combined deposits. Critically, most of these deposits were not eligible for FDIC insurance as they were in excess of the $250,000 insurance cap.[1] Despite this, not one depositor lost a nickel. Meanwhile, the deposit insurance fund sustained losses in excess of $16 billion, which represented roughly 15% of its assets at the time. This series of events prompts an obvious question: Does FDIC deposit insurance extend to all deposit accounts at insured institutions—even those deposits that exceed the explicit $250K cap?

Our position is that yes, for all practical purposes there is an implicit systemwide deposit insurance scheme in the U.S. that covers all deposits in U.S. domiciled banks, even those in excess of the formal $250,000 cap. The FDIC proudly proclaims on its website that since its inception in 1934, not a single penny has been lost in an FDIC-insured account. We contend that the 2023 bailout of uninsured depositors at the primarily coastal elite banks (SVB/FRC/SBNY) marks a watershed event in U.S. banking, where politically it will be very difficult—if not impossible—to bail in any depositor going forward whether the bank is deemed systemic or not. However, given the nature of our existing political structure and regulatory apparatus, the authorities are highly unlikely to make this guarantee explicit.

There are three primary arguments against this position: First off, the FDIC explicitly guarantees $250K per account and expanding this explicit guarantee does in fact require an act of Congress, which is unlikely in the immediate future for a host of reasons. Secondly, the FDIC insurance fund is funded to the tune of some $125 billion, which is woefully inadequate in comparison to the size of the deposit base it intends to insure. Lastly, and perhaps most importantly, empirically speaking, uninsured depositors at numerous institutions have in fact lost money when their bank failed.

Let's take each of these points in turn starting with the lack of pending congressional action. While it is true that explicitly moving or removing the insurance cap would require congressional action and that congressional action looks highly unlikely in the current political environment, it is also true that the FDIC (in conjunction with the Federal Reserve (Fed) and Treasury) has the power to guarantee not only the deposits of insured institutions but also their debts under the systemic risk exemption (SRE) granted to them by Congress in 1991 on the heels of the Savings and Loan (S&L) crisis. Ironically, the SRE was granted because the FDIC was seen to have bailed out too many depositors during the S&L crisis. The SRE was supposed to be used sparingly and critically only when all three bodies—FDIC, Fed, and Treasury—agreed that bailing in depositors could trigger a systemic crisis. Fast forward to the GFC and regulators explicitly removed the cap on all non-interest-bearing transaction accounts for a period of one year from October 2008 through October 2009, without congressional action, citing the SRE powers. But the regulators did not stop there; they actually extended this guarantee to certain newly issued unsecured debt of qualifying banks, a guarantee that ultimately covered in excess of $300 billion through 2012. Fast forward to the bank failures of 2023 and the regulators once again bailed out all depositors, citing the SRE.

The next argument is that even if the regulators cite the SRE and try to bail out the depositors, the deposit insurance fund simply does not have the assets to cover its potential liabilities under an unlimited account framework. It is true that the assets in the FDIC deposit insurance fund ($125 billion or so) are woefully inadequate to insure systemwide deposits based on committed assets alone. However, it's important to note that the strength of the deposit insurance fund is and always has been its ability to assess member institutions and not its funded status, which has always been inadequate relative to its potential liabilities. Regulators already guarantee all deposits at the GSIBs through the orderly liquidation authority granted to the Fed as the result of the Dodd-Frank Wall Street Reform and Consumer Protection Act. To extend this insurance to the regional banks and even community banks is not a stretch. So, to compare the assets of the fund with the size of the deposits it insures totally misses the mark.

[1] 85%, 90%, and 68% of SVB, SBNY and FRCs deposits, respectively, were uninsured as of 12/31/2022.

Lastly, since 2007, there have been 37 bank failures where depositors in excess of the cap lost money, so empirically speaking there has not been a systemwide unlimited depositor guarantee. Upon further scrutiny, however, there is some context that needs to be applied to this statement. The FDIC closed a total of 541 banks since 2007, 504 of which resulted in all depositors being protected, insured or not. Most of those bank failures occurred during the GFC and were covered by the FDIC's Transaction Account Guarantee (TAG) program, which insured all non-interest-bearing deposits of insured institutions regardless of size for a one-year period. The majority of the 37 failures where depositors lost money occurred in 2007 and 2008—prior to the TAG program being implemented.

Of the 37 failures where depositors took losses, most of them were community banks with the one large exception being IndyMac, which failed in the summer of 2008. But even in that case, the FDIC worked extremely hard to limit losses, even retroactively applying the insurance cap increase from $100K–$250K to IndyMac depositors despite the legislation not passing until December 2008. IndyMac's total assets immediately prior to failure totaled roughly $32 billion while the total depositor losses were only $94 million. Obviously cold comfort to those people with funds on deposit at IndyMac in July 2008, but it certainly frames which way the tide was heading, and that was nearly 16 years ago.

More to the point, we are not arguing that FDIC deposit insurance was unlimited in the past, rather, we are making the case that 2023 represented a watershed moment for banking in the U.S. on several different levels, including the FDIC now implicitly insuring all depositors systemwide. While ambiguity exists due to the lack of congressional action, it is perfectly clear that the FDIC wanted all depositors to **believe** they were backed by the FDIC and this continued lack of congressional leadership has essentially freed the executive branch and consequently the FDIC to do what it wants to do. Granted regulatory and political frameworks are constantly evolving and changing but under the current apparatus it is exceedingly hard to believe that if a bank of any material size fails in the United States that its depositors would not be taken care of in the same manner that the depositors of the three coastal elite banks were in 2023.

In what circumstance could we be wrong? As hinted at above, invoking the SRE in the case of small community banks (less than $10 billion in assets) might be challenging. But even then, it seems like a huge political risk to not cover these deposits after what was done with SVB/FRC/SBNY. After bailing out the wealthy venture capitalists and tech bro depositors of the Bay area and NYC, it would be politically untenable to allow a depositor bail-in to occur at a small community bank. In other words, for all intents and purposes, unlimited deposit insurance is here to stay.

3. DID THE BANK TERM FUNDING PROGRAM (BTFP) CHANGE THE FED'S FUNCTION AS LENDER OF LAST RESORT?

The classical concept of a central bank's (CB) role during a financial panic is to act as a lender of last resort by lending freely to banks against good collateral at punitive interest rates. This concept is often attributed to British financial journalist Walter Bagehot and dates to the late 19th century. Prior to the Fed's roll out of the BTFP, it was the Fed's discount window that served this purpose. So why was the BTFP necessary? It was because the banks refused to use the discount window for several reasons.

When a bank utilizes the discount window, the loan must be overcollateralized. In other words, there will be a haircut applied to the collateral and the bank will receive less money than fair value of the collateral. This is a problem when the fastest Fed rate hike cycle in history has just produced the worst return ever for the Bloomberg U.S. Aggregate Bond Index. Indeed, the Index was down 13% in 2022. Put another way, the collateral that a bank would present at the discount window was worth far less in the spring of 2023 than it was at the beginning of 2022. In some cases, this meant that some banks simply did not have enough collateral to tap the amount of liquidity that they needed. Another reason banks refuse to use the discount window is that there is a stigma associated with banks that use the discount window—the scarlet letter of the banking industry so to speak—even though the Fed does not disclose the borrowers until years after the fact. Still another reason that banks do not use the discount window is that the Fed charges 100 basis points over the Fed Funds rate, which, although we would argue is not punitive, the banks thought was too much. In fact, banks were so loath to use the discount window that it has been reported the three banks that failed (and hence clearly needed liquidity) didn't even know how to go about using it from a practical standpoint. Rather, they were busy trying to secure funds from the Federal Home Loans Bank (FHLB), which does not have the same stigma attached to it but was not intended to, nor designed to, deal with bank runs.

To address the shortcomings of the discount window, the Fed created a whole new program called the Bank Term Funding Program, which was designed to address each of the three points above. First, as a new program it would hopefully sidestep the negative stigma associated with tapping the discount window. Secondly, the BTFP would not require over collateralization like the discount window did. The BTFP did not even require full collateralization, instead lending to the banks at the par value of posted collateral, which in the spring of 2023 would likely have been materially higher than the fair market value of the collateral. The analogy would be an individual getting a loan for 120% of the value of their brokerage account. And finally, the funds were made available to the banks at the one-year SOFR rate, with no spread and no pre-payment penalty. These terms were so advantageous that banks with no liquidity issues began to draw on the BTFP in size as an arbitrage. Since the yield curve was deeply inverted, a bank could borrow from the Fed at the one-year BTFP rate and simply loan those same funds back to the Fed through the reverse repo facility and pocket 50 basis points or more in arbitrage profits. The terms of BTFP were changed in January of 2024 due to the terrible optics of bankers arbitraging an emergency program that put taxpayer money at risk to bail those very same bankers out.

The old adage of lending freely against good collateral at punitive interest rates has now been completely turned on its head. Although the BTFP is widely expected to expire (with no fanfare) later this month, its rollout did set a precedent for the Fed's reaction function with respect to bank runs: it will lend freely against bad collateral—and at advantageous terms. Even though the BTFP has been shut down, it is not lost on us that it was dreamed up over a long weekend in March 2023 and similar programs can be dreamed up again. As it was being shut down, the groundwork for requiring banks to regularly use the discount window is being laid by the Fed. We suspect that future discount window borrowings will look a lot more like the BTFP than they will what Walter Bagehot was prescribing.

4. WHAT IS MEANT BY THE REGULATORY TERM "WELL CAPITALIZED"?

All three banks that failed in the spring of 2023 were reported to be "well capitalized" by regulatory capital standards for the period immediately prior to their resolutions. This prompts another obvious question: What exactly does "well capitalized" mean?

The layman can be forgiven for thinking that the answer to this question is a bank whose assets are sufficient to cover its liabilities such that, in an orderly liquidation, all liabilities can be reasonably expected to be paid off in full. Or in even simpler terms, a bank whose assets exceed its liabilities. However, the reality is that banks almost always report to be well capitalized in the immediate period prior to failure and they almost always have liabilities that exceed their assets. This was the case with all three of the large U.S. bank failures in 2023. It was also true in the largest U.S. bank failure in history, WAMU in 2008, and it was true in the case of Continental Illinois in 1984. And it will be true when the next large bank fails, whenever that inevitably occurs.

What gives? It's probably a little too cynical to say that regulatory capital means nothing other than whatever the regulators say it is. But it's important to remember that U.S. banks subject to these regulatory capital ratios at the very least have input into how these ratios are calculated and at the very worst have influenced the very regulators that write and enforce these regulations. Those banks are incentivized to lobby for two important and related things: number one, to limit the amount of equity they are required to hold against their assets, and number two, to ensure that their assets and liabilities are not marked to market.

The extent of leverage in the banking sector is one of those dirty little secrets that nobody in the industry wants to talk about. To be fair, it has improved since the GFC when some of the investment banks were notoriously levered 50:1, but banks in general are still extremely highly levered by any objective standard. For example, the minimum supplemental leverage ratio for a large U.S. bank is set at 5%. Or in other words 20:1. That's $20 in assets for every $1 in equity. This means that if a bank's assets drop in value by 5%, its entire equity base is wiped out. That is, if the assets are marked to market. Which brings us to the second dirty little secret of banking: regulatory capital ratios do not reflect assets marked to market. And they are not marked to market because the banks are so highly levered that any movement in interest rates or relatively small credit losses could easily wipe out the little equity that these banks hold against their assets.

Bringing it all together

There were numerous regulatory changes after the banking crisis of 2008 that were meant to make the system more stable than it otherwise would be. Some of these well-meaning regulations, however, lead directly to the bank failures of 2023.

For example, as part of the Dodd-Frank Act, banks were required to hold minimum levels of what the regulators deemed to be high-quality liquid assets (HQLA) to cover potential withdrawals in the event of funding stress and these HQLAs were granted favorable regulatory capital treatment. Agency mortgage-backed securities (MBS) was one of the assets that qualified because default risk was low and there is a very liquid and deep secondary market. Two of the three major 2023 bank failures were a direct result of losses on agency MBS portfolios (SVB/SBNY). Ironically, Barney Frank was a long serving board member of Signature Bank at the time it entered receivership.

Perhaps the most obvious regulatory misstep coming out of Dodd-Frank was the creation of the orderly liquidation authority (OLA), which created an explicit guarantee of all deposits (without limits) for those banks covered by the OLA. Of course, the OLA only covers eight U.S. financial institutions, which is exactly why deposits were growing and deposit costs were declining at those eight large financial institutions during the March 2023 bank run. Meanwhile the exact opposite was occurring at nearly every other bank in the country.

This begs the question: Which of the recent changes outlined above will contribute to the next crisis? Admittedly, our crystal ball is foggy as the next bank crisis is not likely in the near term, but we are keeping a close eye on two changes. First, empirically speaking, the expansion of deposit insurance has always contributed to long term instability of a banking system. Furthermore, non-stigmatized access to cheap central bank funding, whether in the form of the BTFP or the discount window, will incentivize banks to take on liquidity risks they otherwise would not. This is somewhat counterintuitive as we would certainly agree that the rollout of both unlimited systemwide deposit insurance and abundant cheap central bank funding was undeniably stabilizing to the system in the short term. How exactly these instabilities play out will have to be the subject of another day.

1404 Vine Street, 2nd Floor, Cincinnati, OH 45202
(513) 317-6829 cell
(513) 345-4414 direct line
www.redcedarim.com

Definitions

Bloomberg U.S. Aggregate Bond Index - Represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

Disclosures

Red Cedar Investment Management, LLC ("Red Cedar") is an investment adviser registered under the Investment Advisers Act of 1940. Registration as an investment adviser does not imply any level of skill or training. The oral and written communications of an adviser provide you with information about which you determine to hire or retain an adviser. For more information please visit: www.adviserinfo.sec.gov and search for our firm name. Neither the information nor any opinion expressed herein should be construed as personalized investment, tax, or legal advice, or a recommendation of any particular security or strategy.

The information herein was obtained from various sources. Red Cedar does not guarantee the accuracy or completeness of information provided by third parties. Performance returns provided by third parties may differ slightly from the performance returns provided in other Red Cedar materials (e.g., fact sheets, presentations, etc.) because of rounding differences in the calculation of the returns by the various sources.

The information herein is given as of the date indicated and believed to be reliable.

Index performance used throughout this presentation is intended to illustrate historical market trends and is provided solely as representative of the general market performance for the same period of time . Indices are unmanaged, may not include the reinvestment of income or short positions, and do not incur investment management fees. An investor is unable to invest in an index.