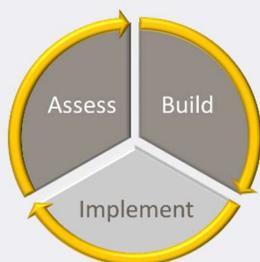


CornerCap's Review of Bank Failures Fundametrics® research implications in real-time

By Jeff Moeller, Director of Research and Portfolio Manager



How does a quant model adjust during rare, outlier events?

Over the weekend of March 11-12, the CornerCap investment team actively monitored the fallout of the collapse of Silicon Valley Bank (SIVB), the second largest bank failure in US history. We are often asked, how do we navigate our decisions in our Fundametrics research system during those rare, outlier events? This paper provides real-time insight into that question.

For context, CornerCap's Fundametrics investment process follows what we refer to as a "Build-Implement-Assess" loop. It is iterative by intention. The team builds the models and assesses their output on a regular schedule, allowing the model to implement without bias or human intervention. However, disruptive events occur (i.e. GFC in 2008, Pandemic in 2020, bank failures in 2023, etc.) that require us to learn, adapt and refine the models outside of the normal cadence.

Using a series of charts and discussion, we demonstrate how the investment team initially assisted the Fundametrics research process. It will give you a sense of how we adapt, how our research process works, and why we believe in it deeply.

Over the weekend, the CornerCap investment team actively monitored the fallout of the failure of Silicon Valley Bank (SIVB), the second largest bank failure in US history. Regulators took over SIVB on Friday, as well as another smaller bank, Signature Bank (SBNY), on Sunday.

Events are moving rapidly. The dust may have settled on this immediate crisis, but it will take some time to assess full implications.

Review of Failed Bank Characteristics

Banks included in the next series of charts are organized into three groups. The first two banks were taken over by regulators. The next three have been receiving negative press and were labeled as potentially the next group to fail. The last two were held in the Fundametrics Small-Cap strategy and sold this week due to their similar characteristics to the failed banks. The sell decisions were part of a more extensive qualitative review of the portfolio's bank holdings.

Regulator Takeover

SIVB	Silicon Valley Bank
SBNY	Signature Bank

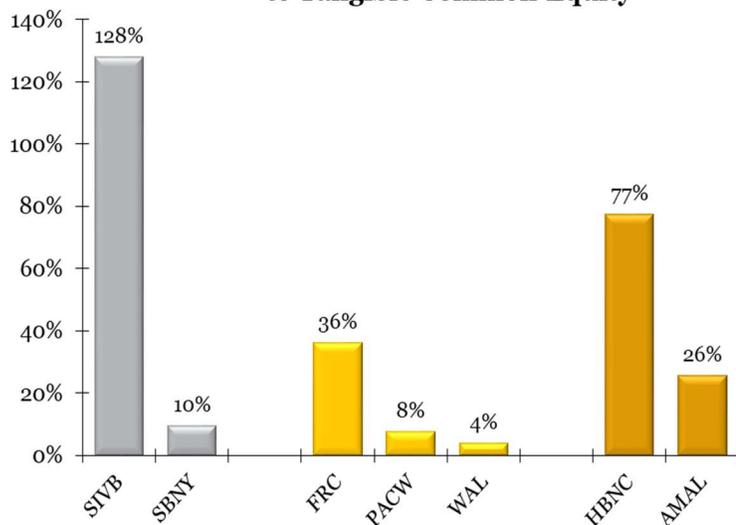
Negative Press (Potential Failure)

FRC	First Republic Bank
PACW	PacWest Bancorp
WAL	Western Alliance Bancorp

Sold from Fundametrics Small Portfolio

HBNC	Horizon Bancorp, inc.
AMAL	Amalgamated Financial Corp.

Held to Maturity Unrealized Losses to Tangible Common Equity

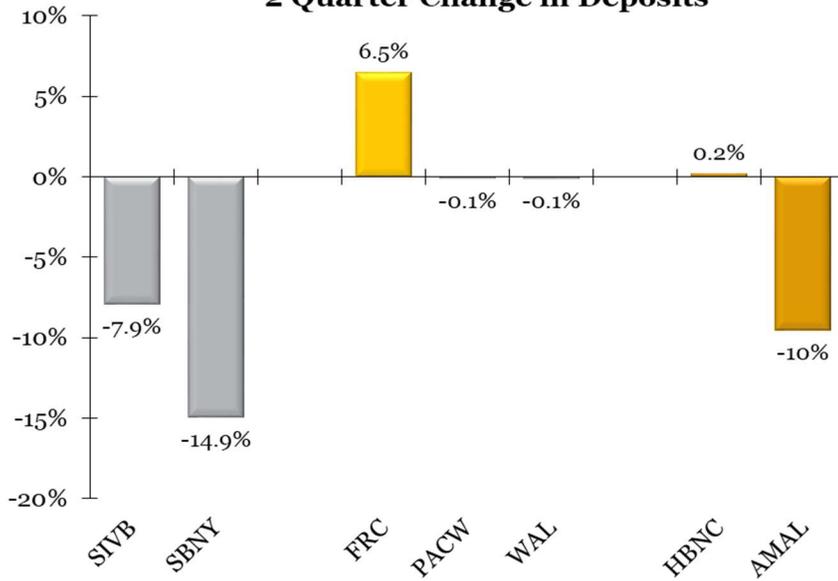


Source: CornerCap Fundametrics, SEC Filings

Held-to-Maturity (HTM) investment securities are on the balance sheet at amortized cost, which means the unrealized gains or losses are not reflected in the equity or capital ratios of banks. Currently, this information is available in the notes of SEC filings (left chart) but is not readily available in a standardized format.

The unrealized gains and losses in Available-for-Sale (AFS) investment securities are reflected in the equity of banks. Responding to the rate increases by the Fed and resulting unrealized losses to AFS portfolios, banks have moved securities to their Held-to-Maturity portfolios to keep equity and capital levels higher.

2 Quarter Change in Deposits

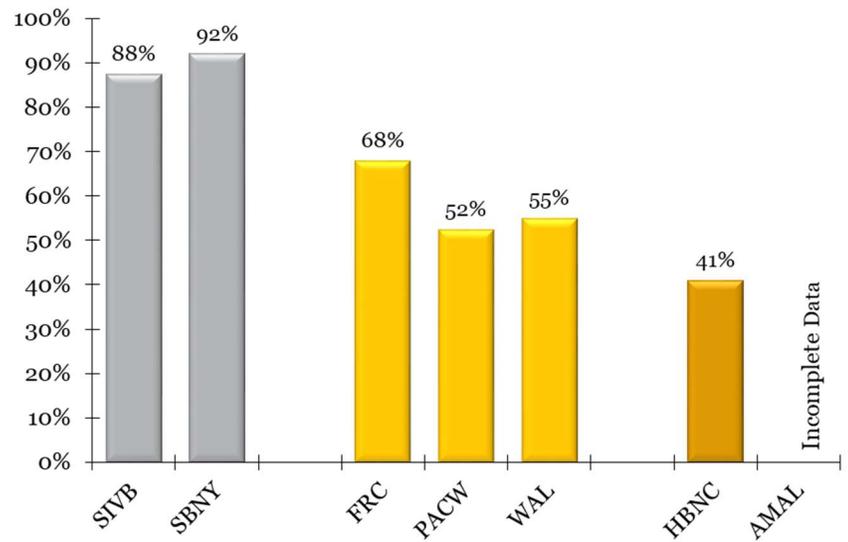


A review of the most recent two-quarter change in deposits (left chart) may have been a good indication of stress to come. Having to sell securities with high levels of unrealized losses to meet these outflows of deposits would likely require a capital raise, which is what SIVB was trying to do last week before regulators took over.

Source: CornerCap Fundametrics

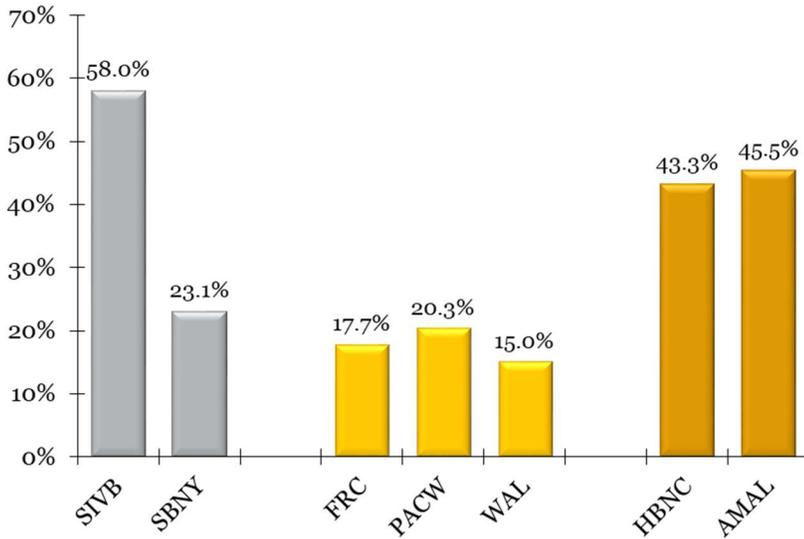
What we know now about SIVB is that 88% (right chart) of their deposits were not FDIC insured (\$250k limit). Its business model catered to the technology, life science/healthcare industries, as well as global private equity and venture capital clients. Signature Bank had a different client base but similar business model. The depositors at both banks raced for the door at the same time, creating a classic bank run.

Percentage of Uninsured Deposits



Source: CornerCap Fundametrics, SEC Filings

Investment Securities to Assets

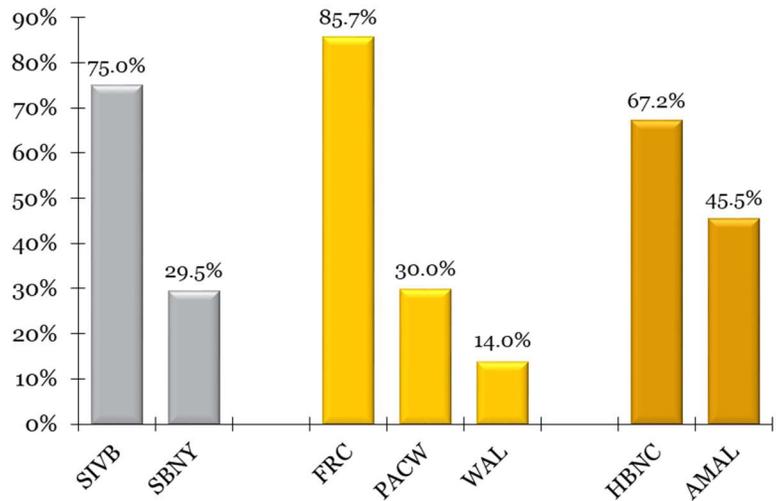


Investment securities, not loans, had become the largest asset at Silicon Valley Bank, which separates it from many banks. The research team at CornerCap started our analysis with the banks that held the largest amount of investment securities to assets (left chart).

Source: CornerCap Fundametrics, SEC Filings

Moving investment securities to Held to Maturity can hide large unrealized losses on the balance sheet. Therefore, it is not surprising to see banks with higher weights of HTM securities also have the highest risk to capital levels (right chart).

Held to Maturity to Total Investment Securities



Source: CornerCap Fundametrics, SEC Filings

Data Summary

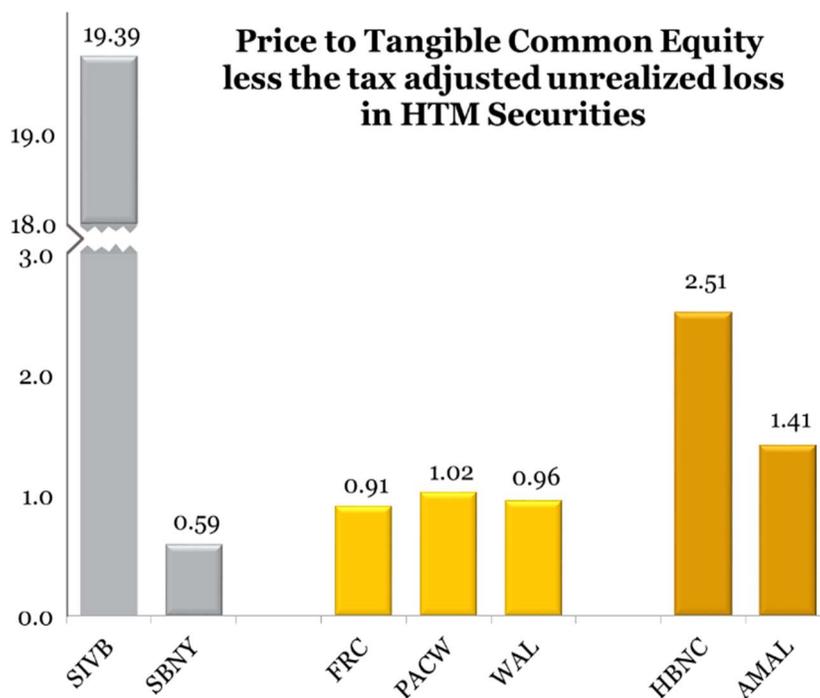
Silicon Valley Bank and Signature Bank’s investment portfolios look very different, one raises red flags (SIVB), and the other does not (SBNY). Neither appeared to hold risky investment securities or have any material loan credit problems. The common factor appears to be business risk from concentration of their deposits.

The negative headline group has stable or growing deposits and only FRC has elevated unrealized losses from HTM securities. They all have similar geographic locations to Silicon Valley Bank on the west coast, thus an assumption might be made by investors of similar customers or less confidence in these banks due to the regulators already missing the now exposed risks of SIVB. The Fundametrics Small Cap strategy held both PACW and WAL. Neither were exhibiting the same risks that led to the downfall of SIVB and SBNY but other quantitative risk factors triggered a sell decision on those stocks this week. Like the total portfolio, bank positioning within the portfolio is diversified, and PACW and WAL made up 70bps of the portfolio at the beginning of March.

HBNC was sold from the portfolio for elevated unrealized losses in HTM securities and a valuation that did not reward the risk in our view. AMAL has seen deposits leaving the firm like banks that were taken over and unrealized losses were a little concerning when coupled with the loss of deposits. Volatility has been high in all banks, and we believe we can find opportunities with less risk.

Federal Reserve

The Fed acted quickly in the attempt to avoid contagion. It will take time to see if confidence is fully restored, but by their actions, an assumption can be made that essentially all uninsured deposits are guaranteed. In addition, by allowing banks to post their qualifying securities as collateral at par value,



Source: CornerCap Fundametrics, SEC Filings
 Data: Prices are as of 3/14/2023 end of day and SIVB and SBNY are using last trading price. Assumed 24% tax rate.

banks will find it much easier to meet deposit demands without having to sell securities or realize losses. This should keep bank capital levels stable, all else being equal. This new lending facility is called the Bank Term Funding Program and is projected to last a year. If interest rates remain high, we would not be surprised to see this program extended.

What will be the new regulations that come from these events?

Research Priorities

The existing Fundametrics bank research models have been very successful since 2020 (right chart). The Alpha Composite of the bank peer group clearly outperformed, generating a cumulative 31.0% return compared to the group average of 12.4%. In addition, the Financial Warnings correctly flagged banks with high-risk characteristics, preventing those stocks from being included in portfolios. Those stocks that either had an Avoid or Fail ranking substantially underperformed, returning -3.9%.

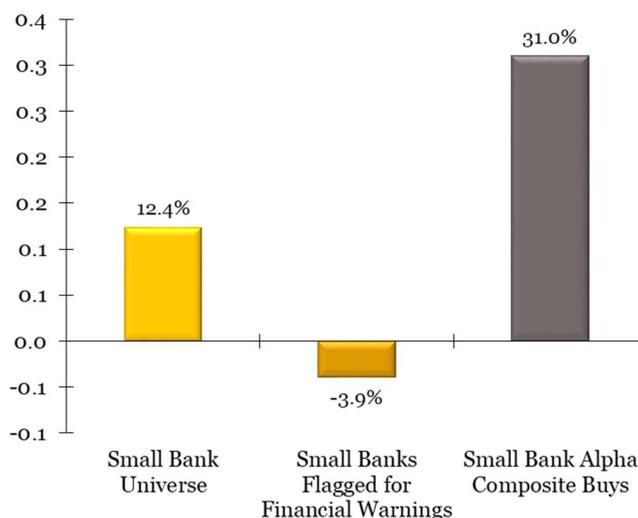
Our Bank Financial Warnings were originally created out of the Great Financial Crisis in 2008. The primary factors created and implemented were used to identify changes in loan quality and how a bank provisions for these loans on the income statement. Capital levels and their changes were also attributes that were consistently measured.

However, what the SIVB / SBNY events of the past few days have taught us is that unrealized losses in HTM securities were a blind spot that our research team will look to address when testing capital on the balance sheet. Other items to test include changes in deposits as a leading indicator, percentage of uninsured deposits and customer diversification.

If the new elements prove to add value or avoid pitfalls, we will incorporate them into to our Alpha Composite and/or Financial Warning models to enhance the systematic evaluation of banks. In the interim, the team will review SEC Filings manually for the identified blind spots.

Past performance is no guarantee of future results, and CornerCap's strategies, like most investment strategies, involve the risk of loss. Different types of investments involve varying degrees of risk, and there can be no assurance that any specific investment will be profitable. All investors are advised to fully understand the risks associated with any kind of investing they engage in.

Fundametrics Small Bank Model Performance
1/1/21 - 3/10/23



Source: CornerCap Fundametrics, SEC Filings
Data: Alpha Composite Buys are deciles 1 to 3
Financial Warnings are those ranked Avoid and Fail.