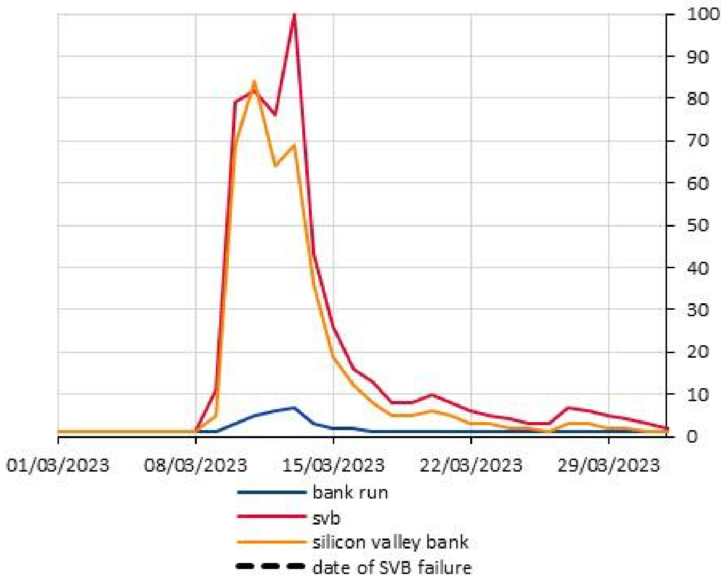
Digitalisation - a potential factor in accelerating bank runs?

Claire Brousse, Jules Joyez and Camille Riesi

In March 2023, customers of Silicon Valley Bank in California withdrew their deposits en masse, leading to its bankruptcy in just a few days. The digitalisation of banking services and social media accelerated the bank run by making it easier to withdraw uninsured deposits and amplifying the panic. This is prompting initiatives by regulators to take better account of these new risk factors.

Chart 1: Volume of Google searches for occurrences of terms linked to Silicon Valley Bank in March 2023



Source: Google Trends.

Note: The Google trends shown here are measured as an index which takes the value 100 for the point of highest global search interest for one of the terms in March 2023.

Between 8 and 13 March 2023, there was a surge in Google searches for occurrences linked to Silicon Valley Bank (SVB), pointing to sudden fears over the bank's finances that may have accelerated the bank run and the subsequent failure. A bank run occurs when many customers simultaneously withdraw their deposits due to concerns over the bank's financial health.

Alongside SVB, various regional US banks, including Silvergate and Signature Bank, also collapsed in March 2023 following a bank run. The failures were caused by structural weaknesses, such as depositor concentration and a high share of uninsured deposits, although the precise reasons and sequence of events differed for each bank. Silvergate customers withdrew 68% of their deposits in the final quarter of 2022, whereas SVB experienced a very rapid bank run, with customers pulling out 25% of their total assets in just 24 hours (9 March 2023).

To protect savers and limit the risk of rapid failure, banks are subject to prudential capital and liquidity rules that require them to keep a minimum capital buffer to cover potential losses, along with sufficient liquid assets. In the United States, however, these requirements are proportionate to each bank's size and activity.

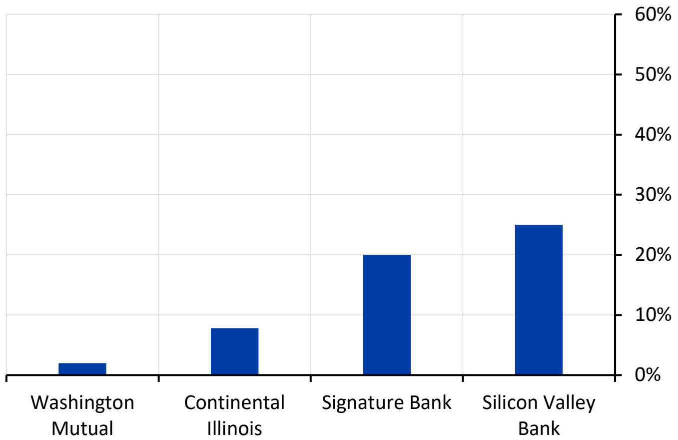
In parallel, deposit guarantee schemes reimburse depositors up to a certain amount – EUR 100,000 in Europe and USD 250,000 in the United States in the event of a bank failure. In SVB's case, the guarantee proved insufficient as over 90% of deposits exceeded the maximum compensation amount. However, US authorities decided to fully reimburse all deposits.

The digitalisation of banking services can accelerate deposit outflows

The growing digitalisation of banking services (24/7 access to internet and mobile banking, instant payments and withdrawals, etc.) is having an impact on customer behaviour, and this trend accelerated rapidly with the Covid-19 pandemic. In 2022, 96% of French people accessed their bank's website or mobile app, while 74% had downloaded their banking app compared with just 55% in 2018 (French Banking Federation, 2023). These online services offer various benefits to customers, including easy account access and rapid transaction execution.

However, the growing use of mobile banking can also make it easier and quicker to withdraw deposits. Instant transfers are available 24/7 via banking apps, significantly reducing the time it takes to make a withdrawal. SVB's collapse occurred after just two days of deposit withdrawals, compared with ten days for Continental Illinois in 1984 and nine days for Washington Mutual in 2008. Daily withdrawals reached a maximum of 25% of deposits (USD 42 billion) for SVB, compared with just 2% for Washington Mutual (Chart 2), precipitating SVB's failure on 10 March 2023.

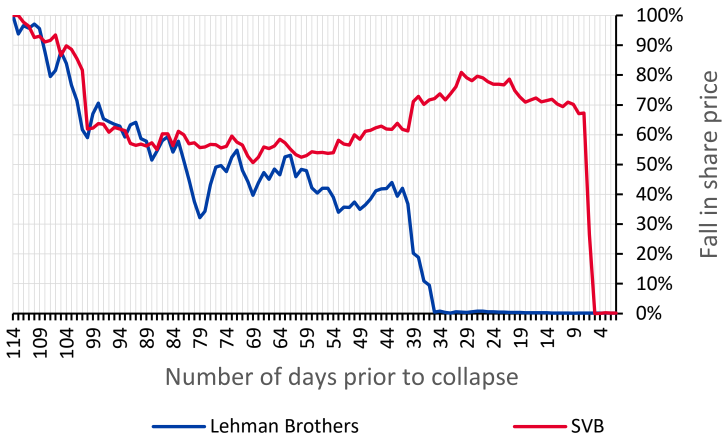
Chart 2: Maximum daily deposit withdrawals as a share of total book value



Source: Federal Reserve.

SVB's failure was thus accelerated by 24/7 access to instant transfers (IMF, 2024). The bank run caused SVB's share price to drop by 60% in a single day; by way of comparison, Lehman Brothers shares took two months to shed 74% before the bank's failure in 2008 (Chart 3).

Chart 3: Price of Silicon Valley Bank and Lehman Brothers shares



Source: Bloomberg.

Social media could also speed up the spread of information and amplify bank runs

Social media and private messaging allow information (and rumours) to spread instantaneously between large numbers of people throughout the world.

Economists studied messages published on X (formerly Twitter) before and during the bank run in March 2023 (Cookson et al., 2023). Their analysis of the frequency and intensity of negative messages shows that, in the case of SVB, social media exacerbated depositors' panic and was a factor in accelerating deposit outflows (S&P Global, 2024). The impact of social media may be further amplified if depositors are concentrated in a particular geographical area or sector, as in the case of SVB. SVB's depositors were primarily from the tech sector and had a strong media presence, so their messages spread widely and rapidly, accelerating the bank run.

The events of March 2023 have prompted regulators to examine digitalisation risks from a new angle

Up until recently, financial sector digitalisation was mainly seen as posing risks from a cyber-security perspective or in terms of market concentration. However, the events of 2023 led to a reappraisal of financial digitalisation as a potential amplifier of risks to financial stability.

A report by the Financial Stability Board (FSB), published in October 2023, highlighted that: (i) bank failures can negatively impact other financial institutions via contagion effects, notably due to customer behaviour in using digital services; and that (ii) given the speed of deposit flight caused by digitalisation, there is a need to rethink the operational implementation of resolution plans and be able to apply them almost immediately. This means banks need to achieve an adequate level of preparedness for the implementation of their resolution strategy. Authorities, in turn, must be capable of acting rapidly to operationalise resolution plans, and must have appropriate communications strategies in place to restore market and depositor confidence and curtail bank runs (FSB, 2023). Further work by the FSB led to the publication of a report on the implications of technology and social media for depositor behaviour (FSB, 2024).

The speed of transactions and information spread could also make it more difficult to anticipate liquidity needs. The Basel Committee has noted that (i) "the advances in the digitalisation of finance [...] are removing many of the frictions that may have previously slowed down the magnitude of liquidity outflows"; and that (ii) "the proliferation and prevalence of a wide range of social media channels [...] are accelerating the spread of concerns", notably among uninsured depositors (BCBS, 2023). The Basel Committee has published a report on the digitalisation of finance, along with press releases citing it as a factor that could amplify existing financial risks (BCBS, 2024). These concerns are shared by other authorities such as the US Federal Reserve (Federal Reserve, 2023) and the European Central Bank (Financial Stability Review, 2023).

In the Banque de France's view, the situation calls for an extension of existing regulations to all banks, due to interlinkages and contagion effects, the development of enhanced, rigorous and reactive supervision, and a targeted adjustment of the regulatory framework to allow notably for more granular monitoring of depositor concentration (Denis Beau, 2024).