
# The collapse of SVB:

## A mix of poor risk management and regulatory failure

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The collapse of Silicon Valley Bank (SVB) – which served 50 % of the tech and life sciences start-ups in the US – is the largest institutional failure since the global financial crisis. It is a classic case study that should (if not already) be taught to economic students on how not to manage a bank and cause a bank run. It has exposed the inadequacy of the bank's risk management practices, the (in)effectiveness of some of the post-2008 regulatory reforms, and the (delayed) responsiveness of the authorities. It has also highlighted the significant differences between the US and the EU, in the structure of the banking sector, regulation and supervision. For Europe, the fall of SVB should be a wake-up call to advance its two pillar projects, the Banking Union and the Capital Markets Union.

### Inadequate risk management

The surge in venture capital (VC) funding in recent years and the inflow of capital to start-ups resulted in SVB's asset size ballooning from USD 57 billion in December 2018 to USD 212 billion just 4 years later (December 2022). This very large inflow of funds over a short period had to be invested somewhere, ideally in loans and assets yielding a higher return than deposits[1]. Given the low demand for loans, SVB invested in treasury bonds and mortgage-backed securities[2]. But if doing that, a bank must maintain the interest rate margin between assets and liabilities, to ensure that the interest rate reset periods on the assets match those on the deposits[3].

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[1] This should result in a healthy net interest margin that is sufficient to provide a net profit for the bank. Yet it requires assets where the yield is higher than the cost of funds throughout the life of deposits.
[2] At the end of 2022, 57 % of SVB's portfolio was in securities (78 % in mortgage-backed securities and 22 % in treasury bonds), when the average across US banks was 24 %.
[3] For example, if the interest rate on the bank's assets increase more that its liabilities, then the bank's profits will increase, and vice-versa.

SVB's investments had an average interest rate duration of around 6 years[4]. This meant that as interest rates rose, SVB was locked into low-yielding investments. Thus, a negative interest margin started to develop, hurting the bank's profitability. The market value loss on the bonds rendered SVB insolvent. As concerns grew and depositors wanted out, bonds had to be sold, realising the mark-to-market loss[5].

Risk management is an imperative in banking, as the mismanagement of assets and liabilities can be detrimental. Given that VC is a risky business, and that banks working with VC and start-ups should diversify their lending and deposit customers, SVB exposed the asset and liability side of its balance sheet to such risk. Running the bank without a chief risk officer for almost 8 months and having ineffectual risk management practices led to the bank's downfall.

## Regulatory failure

SVB's rapid growth and the poor asset-liability mix of its balance sheet should have been warning signs to supervisors and regulators. These kinds of risks could have been mitigated and addressed well before they occurred in the first place, with appropriate oversight and regulation. By the end of 2022, the bank had unrealised losses of USD 15 billion, when its total equity was USD 16 billion. Bells should have already started ringing at that time. Although the authorities acted quickly in shutting SVB and taking control of its customer deposits, the fact that they needed to do so highlights monitoring failures all along the way.

The 2010 Dodd-Frank Act aimed to prevent the excessive risk-taking that had led to the global financial crisis. But since then, with rollback of several key Dodd-Frank provisions, the introduction of several easing requirements and lighter oversight for midsize banks in 2018 (i.e. the Crapo Bill), regulators have not supervised these banks sufficiently[6]. Because of these regulatory changes, 66 % (25 of 38) of the larger banks in the US were no longer subject to stronger capital and liquidity rules or enhanced risk management standards.

Regulation and supervision can (or not) give banks incentives to strengthen their risk management. SVB's collapse raises serious concerns about the ability of regulators to spot risks ahead of time. Could, for example, the Fed have intervened well in advance? It also raises questions about the regulatory scrutiny of small and mid-tier banks, or those with a very special customer base and a unique banking model, like SVB.

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[4] From 3.7 years at the end of 2021, the weighted-average duration of SVB's total fixed income securities portfolio (including the impact of fair value swaps), was 5.6 years at the end of 2022. The weighted-average duration of the held-to-maturity (HTM) securities portfolio increased from 4.1 years at the end of 2021 to 6.2 years at December 2022. This means that if interest rates increased by 1 %, the value of the bond would decrease by 6.2 %.

[5] In December 2022, SVB's unrealised losses in the HTM portfolio were at USD 15 billion, representing a 16.6 % mark-to-market loss (for a USD 91 billion portfolio). Unrealised losses refer to the fair value losses arising from financial assets held on the balance sheet for purposes other than trading (e.g. liquidity management).

[6] Among other things, the Crapo Bill raised the asset threshold for enhanced regulatory standards from USD 50 billion to USD 250 billion. Banks that until then would have operated under the Dodd-Frank rules were then excluded. This meant that smaller banks avoided certain elements of federal oversight, including stress tests. As US President Donald Trump said at the time, '[the Crapo Bill] rolls back the crippling Dodd-Frank regulations that are crushing small banks'. If he only knew what would happen 5 years later.

## Differences between the US and the EU

The collapse of SVB – as well as the troubles of Credit Suisse leading to its takeover by UBS – have negatively affected European banks, as investors dumped their shares. While it remains to be seen what impact developments at the Swiss bank will have on the European banking sector, the fall of the Californian bank would have a rather limited impact on the EU. This is due to material differences between the US and the EU banking sectors.

In Europe, there is a higher level of regulation that applies equally to all banks (small and big). The Capital Requirements Directive (CRD5) and Regulation (CRR2) which entered into force in 2021, completed the transposition of the Basel Committee on Banking Supervision (BCBS) international standards for interest rate risk in the banking book (IRRBB)[7]. Accordingly, a bank must either hedge its IRRBB (on both the asset and liability sides) or set aside sufficient capital against the impact of adverse interest rate movements[8].

But IRRBB is not applicable in the US. The Fed has never implemented it, considering US banks to have little exposure due to their largely variable-rate lending model. In general, Basel standards have never been faithfully applied in the US. Those of Basel II never were, while for Basel III they were promised and underway, but that slowed down under the Trump administration[9].

Regulators oversee interest rate risk through the liquidity coverage ratio (LCR), which requires banks to maintain a sufficient stock of high-quality liquid assets (HQLA) – such as short-term government debt – that can be sold to fund banks during a 30-day stress scenario. Banks are required to hold HQLA equivalent to at least 100 % of projected cash outflows during the stress scenario. In Europe the LCR increased from 125 % in 2015 to 166 % in June 2022, while in the US it stands at around 120 %. As for SVB, the bank was not subject to LCR or any other heightened liquidity requirements[10].

EU banks also have a long-standing tradition of measuring and hedging interest rate risk in the banking book, using notably interest rate swaps. From an operating standpoint the European banking sector is in a stronger position since the global financial crisis, with capital ratios and

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[7] IRRBB refers to the current or prospective risk to a bank's capital and to its earnings, arising from the impact of adverse movements in interest rates on its banking book. The basic idea of IRRBB is that assets will be held to maturity so that the valuation of the assets doesn't matter (losses as interest rates go up will be compensated by gains as interest rates go down). But this idea is not fully tenable, by, for example, placing transparency obligations. Thus, the SVB case poses a question on whether the valuation of the banking book should become more important.
[8] In addition, the rule also imposes dedicated disclosure that allows investors, counterparties and stakeholders to be fully informed of such potential vulnerability.
[9] That included efforts to defund investor and consumer protection schemes. At the recent Monetary Dialogue with the European Parliament on Monday 20, the President of the European Central Bank Christine Lagarde 'blamed' the country's partial application of Basel III requirements.
[10] SVB was a category IV firm with less than USD 250 billion in average total consolidated assets, less than USD 50 billion in average weighted short-term wholesale funding and less than USD 75 billion in cross-jurisdictional activity. Thus, it was not subject to the Fed's LCR or the net stable funding ratio requirements, either on a full or reduced basis.

profitability at all-time highs. European banks have high levels of deposits too, while the VC ecosystem is significantly less developed than in the US.

## Moving forward - a European perspective

SVB was a badly managed bank with poor oversight of risk management. The signs were there months ago for supervisors to act, but it seems they failed their duties, partially because certain parts of the Dodd-Frank Act were relaxed under the Trump administration. European banks, of all sizes, are more tightly regulated and better capitalised than their US counterparts, and have withstand the impact of SVB's collapse.

Nevertheless, Europe should remain alert and intensify work on completing its landmark projects.

Strengthening and completing the Banking Union would make European banks more resilient to shocks. Work on the European deposit insurance scheme should advance rapidly. This will provide a stronger and more uniform degree of deposit insurance coverage than today's national deposit guarantee schemes[11].

SVB focused on the start-up sector, from venture debt lending to cash management for start-ups and VCs to wealth management for newly wealthy entrepreneurs, covering the entire lifecycle of capital within the startup ecosystem. In Europe, there is no such specialised bank[12]; European start-ups and innovative companies rely heavily on bank financing, while the European VC ecosystem is significantly less developed than in the US. Thus, there is need to advance the Capital Markets Union project and develop strong capital markets that would foster equity financing and offer access to alternative funding sources.

[11] It is important to highlight that this is not relevant for SVB's case, as most of the deposits were not retail deposits that would be covered by deposit insurance.

[12] Although, Europe does have other specialised banks that may also have specific features and specific risks based on their specialised business.

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