

Detailed analysis of the Failure of Silicon Valley Bank



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The failure of Silicon Valley Bank is a complex issue that has attracted the attention of many analysts and researchers. The hypothesis is a combination of economic, managerial, and regulatory factors that may have influenced the bank's downfall. The research question/goal is, "What are the key factors that contribute to a bank's failure, and how can these factors be identified and monitored to prevent future failures?".

We will use the FFIEC (Federal Financial Institutions Examination Council) for the institutional reports of Silicon Valley Bank and some of its competitors. The data can be found on <https://cdr.ffiec.gov/>. We will use web scraping tools to extract the data from the above website. We will then convert this data into csv format, which will be convenient for our analysis. We will begin with preliminary analysis that includes tidying and transformation of the data wherever necessary. Next, we will perform exploratory analysis to discover correlations between the variables, identify outliers, missing values, and other data quality issues, and formulate hypotheses about the data and generate ideas for further analysis. Using the insights from our analysis, we aim to explain our findings on what factors influenced the bank's collapse, and how these factors can be pre-emptively monitored to avoid downfall of other banks.

We have created initial visualizations that could explain the failure. Fig 1 and 2 (refer pg. 3) explain how Silicon Valley Bank have converted their short-term investments into long-term held-to-maturity securities (treasury bonds). Hence, they wouldn't have capital in the short-term if a majority of their customers requested withdrawals at the same time. Due to this lack of capital, they began pledging their assets to pay their customers (refer Fig. 3 in pg. 3). But what happens if they run out of assets to pledge? It would render the bank unable to pay their customers, obviously! These factors are only a few of the many that could have influenced the bank's downfall, which we aim to uncover in our detailed report.

Since this project is related to real-time events, the complexity is on the higher side. However, we feel that the project is worth exploring as it provides a challenge and has real world impact. The data processing techniques learnt during the course are sufficient to perform this analysis, keeping the given timeline in mind.

Fig. 1

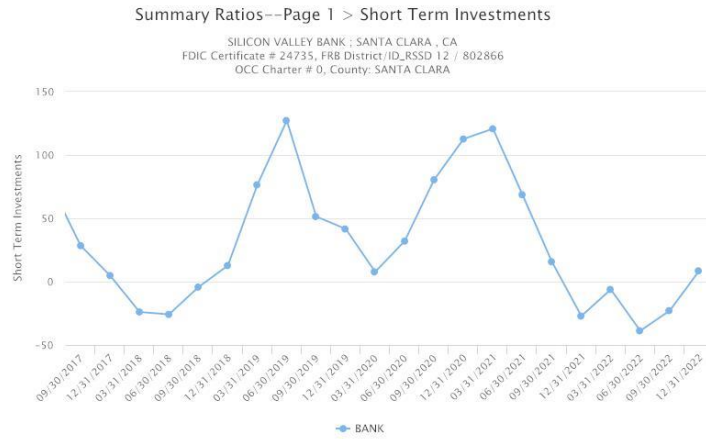


Fig. 2

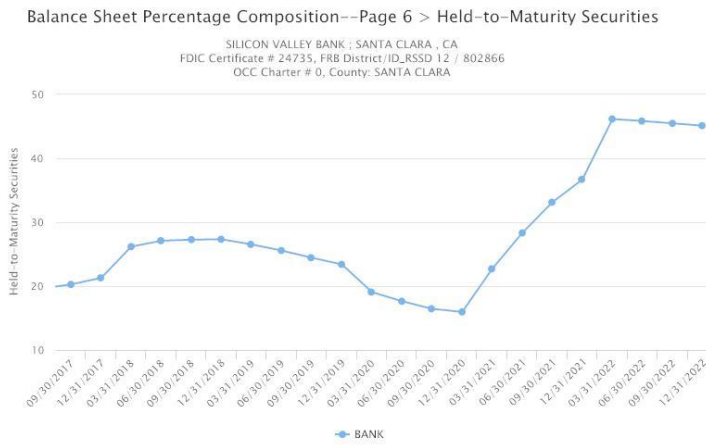


Fig. 3

