

Basel Committee
on Banking Supervision



Revenge of the S&Ls: How banks lost a half trillion dollars during 2022

Discussion by Fang Du, Board of Governors of the Federal Reserve System

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Disclaimer

The views expressed in this presentation are my own and do not necessarily reflect the views of the Board of Governors or any component of the Federal Reserve System.

The Outline of This Presentation

The paper title: Revenge of the S&Ls: How Banks Lost a Half Trillion Dollars during 2022

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- A general research question: What was the cause of the half-trillion-dollar securities loss in the U.S. regional banking turmoil of 2023?
- A primary research question:
 - What is the role of interest rate risk, unrealized losses, and liquidity risk played in bank securities investments?
 - What type of investment securities that contribute the most toward unrealized losses?
 - Why was the 2023 regional bank turmoil similar to S&L crisis in the late 1970s and early 1980s when there were more than 1000 S&L institutions failed?

Data Overview

- U.S. BHCs
- Data sources
 - Y-9C call report data
 - the Center for Research in Security Prices (CRSP) data (stock returns)
 - Quarterly frequency
- Level of observation
 - BHC-level
- Sample size
 - Around 4,542 banks
- Sample coverage period
 - Q1 2017 to Q2 2024

Methodologies

- A set of **OLS regressions** is used to estimate unrealized security losses where the dependent variable is the natural logarithm of the unrealized securities losses.
 - $\ln(\text{loss}_i) = \beta_0 + \beta_1 \ln(\text{treasec}_i) + \beta_2 \ln(\text{munisec}_i) + \beta_3 \ln(\text{rmbs}_i) + \beta_4 \ln(\text{cmbs}_i) + \beta_5 \ln(\text{othdsec}_i) + e_i$
- A **one factor CAMP** model
 - $\text{Stop price return}_{i,t} = \alpha + \beta \text{S\&P 500}_t + \epsilon_{i,t}$
- A **Fama-French three-factor model**
 - No detailed model description and formula
- A **“difference-in-differences”** regression analysis
 - No detailed model description and formula

Research Conclusion

- What was the cause of the half-trillion-dollar securities loss in U.S. regional banking crisis of 2023?
 - The sharp rise in interest rates that began in March 2022 was the proximate cause of the losses.
- Unrealized losses are another potential factor that triggered these bank runs.
 - By Q3 2022, SVB was reporting unrealized losses that exceeded its total equity capital.
 - The information of potential for unrealized losses was available publicly (SVB's 10-Q filing and its regulatory Call Report) in November 2022.
- For all banks, RMBS account for 65% of unrealized losses.
 - For community banks, RMBS account for only 38% of unrealized losses.
 - For regional banks, RMBS account for 57% of unrealized losses.
 - For large banks, RMBS account for 70% of unrealized losses.

Research Conclusion Continued

- The financial markets did not respond to the potential losses of banks with larger securities exposures to interest-rate risk nor to banks' embedded securities losses from their earlier "reach-for-yield" investments.
- Unrealized losses of RMBS are greatest for banks with greater exposures to uninsured deposits.
- Weak oversight of shareholders and regulators did not press bank managers forcefully to manage interest-rate risk effectively.
 - Bank-level unrealized loss data on investment security assets were readily available both to investors and to regulators prior to March 2023; these data could (in theory) provide the basis for disciplining excessive interest rate risk taking.
 - Two potential discipline sources – market discipline by investors and mandated restrictions by regulators – fail to curb many banks to take excessive interest risk in a period of low rates even as the inflation was rising.
 - The consequences of oversight shortfall (shareholders and regulators) were substantial.

Areas the paper can be further improved

- Banks' risk management, Market discipline, and Regulatory Supervision
 - Who manage banks' risk actively – banks' managers or regulators/supervisors? In the risk management arena, what is the role played by bank risk managers and by regulators/supervisors? How and when do regulators/supervisors intervene?
 - How effective is the market discipline channel if the publicly available data - SVB was reporting unrealized losses that exceeded its total equity capital by Q3 2022, several months prior to the bank run of March 9, 2023 in this study – become available prior to the bank run? What was really missing here? Why did the market pricing (stock returns) remain dormant to reflect the interest rate risk and unrealized losses?
 - What are your recommendations of solutions or policies based upon your findings?

Areas the paper can be further improved - continued

- Reach-the-yield strategy: an incomplete story
 - Reach-the-yield is a strategy commonly used in a low interest rate environment. I expect authors to discuss 1). What strategies should or could the SVB adopt to survive in covid (low interest rate) period without chasing high yield of long maturity securities such as RMBS, and 2). What's the expectation of the interest rate risk management the SVB should apply.
- Measure of illiquidity
 - Be clear on the definition on measure of illiquidity. Authors mentioned the measure of illiquidity - share of uninsured depositors. From low "deposit beta" point view, insured depositors are more stable and sticky, but uninsured depositors are more flighty.
 - For banks, larger the uninsured deposits, higher the liquidity risk, which seems consistent with authors' understanding.

Areas the paper can be further improved - continued

- Measure of illiquidity – continued
 - Why do authors use the ratio of uninsured deposits to total deposits to measure the liquidity risk instead of Basel III standards of the Liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR)? What is the advantage for doing so?
- Standard accounting rules
 - I am looking for more discussions on why banks choose HTM for not recognizing unrealized losses in earnings and capital. What are pros and cons for selecting or not this option? What would be the capital or volatility of capital impact if recognizing unrealized losses in a timely manner? What is your position of supporting or eliminating HTM accounting standard?
- How do we all work together to make the financial system, at least for some financial frameworks, behaves as it (they) should be proactively instead of reactively?
- A minor technique suggestion: provide model descriptions and formula for the Fama-French three-factor and the “difference-in-differences” regression models.