By Quincy Randklev, Jack Tierney, and Wenjie Wang

THE US EXPERIENCE WITH FINANCIAL CRISES

Crises

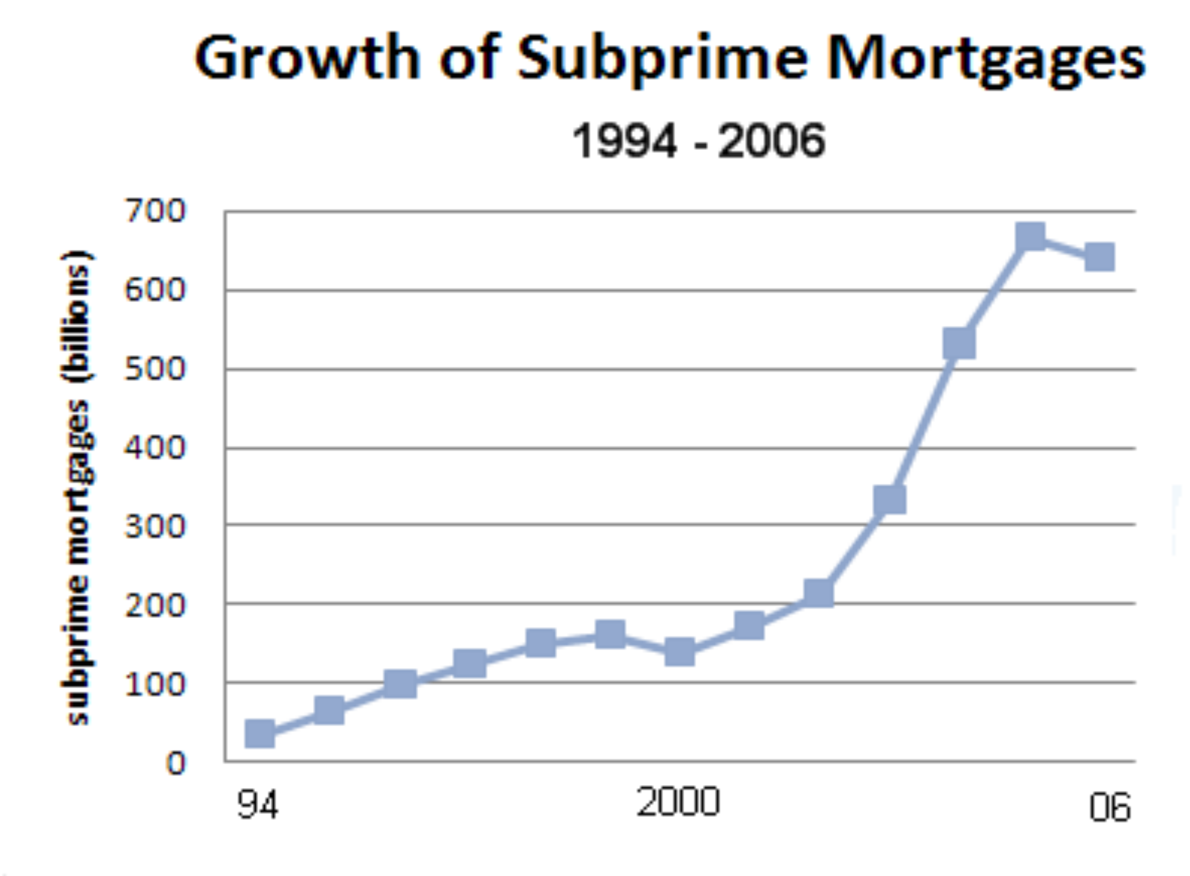
- Subprime Mortgage
- Silicon Valley Bank (SVB)
- Credit Suisse (2023)

Subprime Crisis (2007-2010)

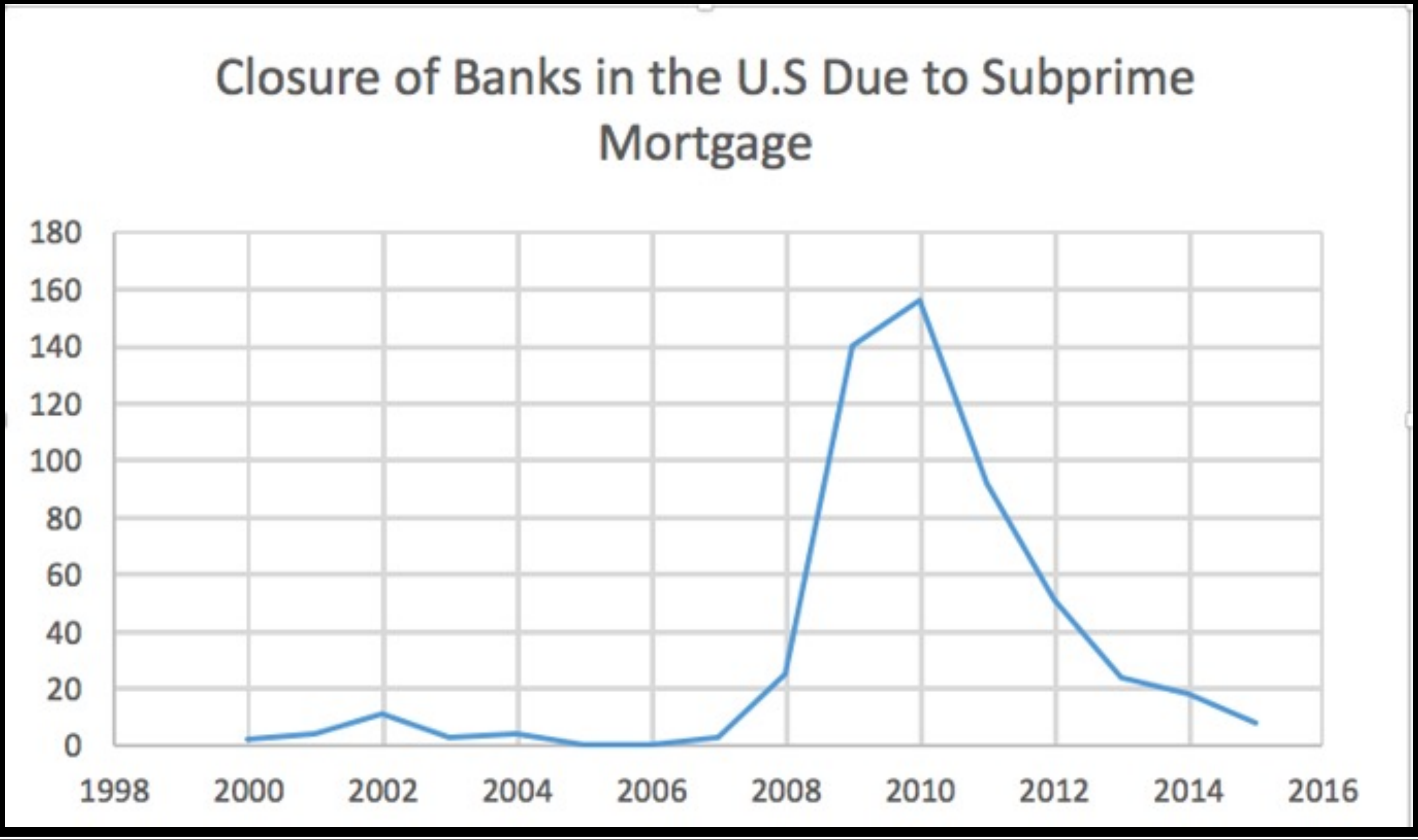
- 1995- Changes are made to the Community Reinvestment Act, ending discrimination against low-income borrowers, mortgage lenders can now buy “subprime” securities to fulfill their requirements.
- 2004 – SEC loosens regulations on companies that have more than $5 billion in assets to leverage themselves an unlimited number of times.
- 2007 FEB - Housing bubble bursts, thus subprime mortgage industry collapses, Dow Jones takes biggest loss since 9/11.
- 2007 AUG – Crisis goes global, lots of large hedge funds were heavily invested in subprime, European Central Bank offers low interest credit lines to support finance industry, the US, Japan, Australia, Canada, and the EU all together insert liquidity into credit markets, first time since 9/11
- 2007 SEPT – Fed cuts rates from 5.25% to 4.75%

(Council on Foreign Relations, 2018)

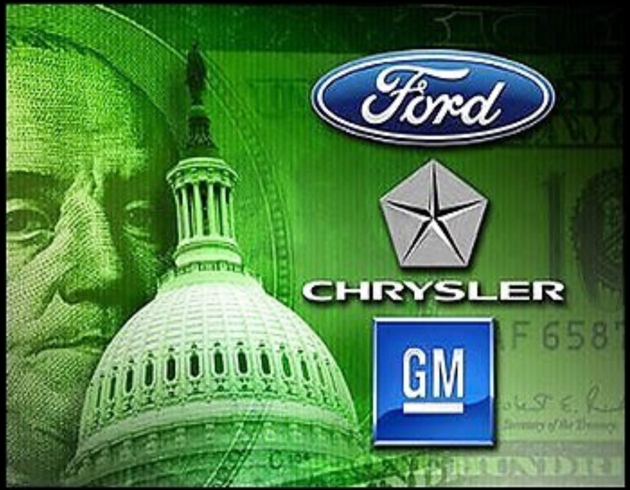
Subprime Crisis – Housing Bubble



Subprime Crisis – Bank Closures



Subprime Crisis cont.



- 2008 NOV – Fed announces quantitative easing and purchases $750 billion of mortgage securities and $300 billion in US treasuries.
- 2008 DEC – President Bush announces auto bailouts for GM and Chrysler totaling $17 billion, Ford avoids bailout, US government would lose over $9 billion after selling its shares later in 2011 and 2013.
- 2009 FEB – President Obama signs $787 billion stimulus package.

(Council on Foreign Relations, 2018)

Subprime Crisis Aftermath

- Net worth of US households declined nearly $17 trillion, about 26%.
- 7.5 million jobs were lost between 2007-2009.
- Unemployment rate at the end of 2010 was 10%.
- No American executive or CEO went to jail or was even prosecuted.
- Dodd-Frank Wall Street Reform Act of 2010.

(Britannica, 2023)

Silicon Valley Bank (2023)

- Grew from $71 billion to over $211 billion in assets from 2019 to 2021 (Federal Reserve, 2023)
- 44% of IPOs for venture tech and healthcare were backed by SVB in 2022; Tripled in size during the pandemic as tech sectors were rising (Gobler, 2023)
- Only a small amount of its assets were held in cash with excess money being used to buy treasury bonds
  - Usually a safe play when rates are low, but interest rates rose as Fed tried to fight inflation making SVB bonds risker and less valuable
- As this happens, many of its clients (Tech firms) begin to withdraw funds, SVB begins to sell its investments to cover the withdrawals at a loss of $1.8 billion (Gobler, 2023)
- The next day, SVB crashes at the open of the market and bank run ensues, being shut down by federal regulators on March 10, 2023
- Largest bank to fail since Washington Mutual shut down amid the 2008 Financial Crisis (Federal Deposit Insurance Corporation, 2020).

Silicon Valley Bank: Timeline of Collapse

- **March 8th**: Silicon Valley Bank announced its $1.8 billion loss on its bond portfolio, along with plans to sell both common and preferred stock to raise $2.25 billion. In the aftermath of this announcement, Moody's (bond credit rating service) downgraded Silicon Valley Bank's long-term local currency bank deposit and issuer ratings (Gobler, 2023).
- **March 9th**: The stock for Silicon Valley Bank's holding company, SVB Financial Group, crashed at the market opening with other major banks also seeing stock price hits as a result. Thus, the run on SVB begins with customers attempting to withdraw their money (total attempted withdrawals of $42 billion) (Gobler, 2023).
- **March 10th**: Trading was halted for SVB Financial Group stock. Before the bank could open for the day, Fed regulators announced they were taking over the bank to prevent contagion. After Fed regulators were unable to find a buyer for the bank, deposits were moved to a bridge bank created and operated by the FDIC, with a promise that insured deposits would be available by Monday, March 13 (Gobler, 2023).
- **March 17th**: Silicon Valley Bank's parent company, SVB Financial Group, files for bankruptcy (Gobler, 2023).
- **March 26th**: First Citizens Bank buys all of Silicon Valley Bridge Bank minus $90 billion of securities and other assets that remained in FDIC receivership (Gobler, 2023).

Silicon Valley Bank: Understanding the Phenomena

Why Did They Fail?

- Federal Reserve Analysis
  1. SVB's board of directors and management failed to manage their risks
  2. Fed supervisors did not fully appreciate the extent of the vulnerabilities as SVB grew in size and complexity
  3. When supervisors identified vulnerabilities, they did not take sufficient steps to ensure SVB fixed these problems quickly and efficiently
  4. The Fed's approach to regulation in response to EGRRCPA (Economic Growth, Regulatory Relief, and Consumer Protection Act) and shift in stance of supervisory policy impeded effective supervision

(Federal Reserve, 2023)

Examinations of Analysis

1. Board didn't receive adequate information from management about risks (agency problem), reliance on uninsured deposits, failed their own internal liquidity stress tests, focused on short-run profits and protection from rate decreases rather than managing long-run risks.
2. Despite growing from $71 billion to over $211 billion in two years, Fed did not appreciate the seriousness of the firm's deficiency in governance, liquidity, and interest rate management; rated satisfactory in management despite repeated observations of weak risk management
3. Supervisory approach to SVB gave them the benefit of the doubt too often with Fed supervisors giving a long transition period for SVB to meet heightened 2021 standards as a result of their substantial growth

   - (identified interest rate deficiencies in 2020, 2021, and 2022 but did not act)
4. The same period SVB was rapidly growing the Fed shifted its regulatory and supervisory policies. Following EGRRCPA in 2019, the Fed enhanced standards for the 8 global systemically important banks (G-SIBs) while leaving other banks with lower supervision and regulatory requirements

(Federal Reserve, 2023)

Silicon Valley Bank: Understanding the Phenomena cont.

How Did They Fail? - Banking as a Confidence Game

- Historically, rumors of trouble at a bank are enough to trigger a bank run, as affected banks enter a negative feedback loop of problems (depicted right) causing panic, causing mass withdrawals, causing more panic, more withdrawals and more bankruptcy (Felix, 2023).
- Once caught in this negative feedback loop, its only a matter of time before the bank runs into actual liquidity problems, and in the case of SVB their liquidity was shown to be very low due to failing their own internal liquidity stress tests as well as keeping only a small amount of their assets in cash (most in treasury bonds)
- Fed Objectives: prevent systemic collapse, protect depositors, restore faith in the economic system

Phenomena Modeled

(Felix, 2023)

Silicon Valley Bank: Consequences

“Winners”

- In reality, nobody wins
- Depositors: As of March 12th, the Fed announced a systemic risk exemption in which all depositors would be made whole (Gobler, 2023).
- Taxpayers: Taxpayers would not pay for losses, instead $20 billion of the FDIC’s deposit insurance fund would pay for the loss (Gobler, 2023).

Losers

- SVB and its parent company, SVB financial group
- Investors: FDIC will not protect shareholders and unsecured debt holders
- Other Banks: Many banks were hit by panic selling due to SVB collapse such as Signature Bank (bankrupt), Western Alliance (down nearly 50%), and even traditional banks such as JP Morgan (7%), Wells Fargo (>15%), and Bank of America (>15%) (Sullivan & Gura, 2023)

Credit Suisse (2023)

What happens ?

- A company with global wealth management, investment banking, and financial services businesses.
- One of the "large investment institutions" in the world.
- Between 1990 and 2000, Credit Suisse Group made a series of acquisitions. Credit Suisse Group has significantly increased its market share through acquisitions such as Winterthur Group, Swiss Volksbank, Swiss American Securities Inc., and Swiss Bank
- It was one of the few banks least affected by the 2008 subprime crisis.
- But it then began cutting investment operations, cutting jobs and cutting operating costs.
- While not specifically a US bank, deeply affected by recent US financial instability

Crisis

- In early October 2022, Credit Suisse was exposed to a liquidity crisis
- Credit Suisse will trigger a financial storm after its largest shareholder, National Bank of Saudi Arabia, refuses to provide financial assistance in February 2023
- The Swiss Ministry of Finance, the Swiss Financial Supervisory Authority and the Swiss National Bank jointly launched the acquisition of Credit Suisse by UBS to solve the Credit Suisse crisis

Why and What to do ?

- Credit Suisse has been dogged in recent years by scandals and compliance failures that have wiped out profits and driven clients away.
- Customers withdrew $121 billion in the final three months of 2022 as the bank was hit by social media speculation that it was on the brink of collapse.
- The collapse of Silicon Valley Bank and Signature Bank a few months later sparked a new wave of asset flight.
- Credit Suisse was affected by several adverse events, including the bankruptcy of Greensill Capital and the liquidation of Archegos
- Led to a continuous decline in the stock price from $14.90 in February 2021 to $3.92 on September 30, 2022
- Critical business conditions pose a huge challenge for UBS as it undertakes an unprecedented merger of two global banks with combined assets of nearly $1.7 trillion.

Commonalities Between Financial Crises

Causal Relationships

- Loosening of regulations (2004 SEC, 2019 EGRRCPA)
- Low Liquidity resulting in bank runs

Objectives and Behavior of Agents Concerned by Financial Crises

- Financial Regulators: step in to prevent contagion of collapse and ensuing economic collapse
- Banks: Attempt to stay afloat; try to prevent mismanagement

Looking Forward

Debt Crisis Problem:

- U.S. Government may default by June 1, 2023, unless debt ceiling is raised - Treasury Secretary Janet Yellen.
- Congress originally estimated the default to land around July of 2023.
- Only 12 legislative days left in May and Congress is on recess this week.
- Potentially pausing payments of Social Security and Military salaries.

Potential Policy/Strategic Responses to Problems:

- For Debt Crisis:
  - Raise the debt ceiling (again)
- For Banks:
  - Increased regulation
  - More stringent/frequent liquidity tests to determine if a bank truly is safe from a bank run or not

(Carlson, 2023)

References

- Carlson, A. (2023, May 2). US could default by June 1 unless debt ceiling is raised; Biden looks to meet with Congress. *ABC News*. https://abcnews.go.com/Politics/us-default-early-june-1-debt-ceiling-raised/story?id=98996005
- Encyclopedia Britannica. (2023, March 30). *Financial crisis of 2007–08 | Definition, Causes, Effects, & Facts*. https://www.britannica.com/event/financial-crisis-of-2007-2008/Effects-and-aftermath-of-the-crisis
- *FDIC: Washington Mutual Bank, Henderson, NV and Washington Mutual Bank, FSB, Park City, UT*. (2020, October 23). FDIC. Retrieved April 26, 2023, from https://www.fdic.gov/resources/resolutions/bank-failures/failed-bank-list/wamu-settlement.html
- Federal Reserve. (2023, April 23). *Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank.* https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf (Google Scholar Source)
- Gobler, E. (2023, April 21). *What happened to Silicon Valley Bank?* Investopedia. https://www.investopedia.com/what-happened-to-silicon-valley-bank-7368676
- Goodwin, B. K. (n.d.). *Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010*. Federal Reserve History. https://www.federalreservehistory.org/essays/dodd-frank-act

References cont.

- McBride, J. (2018, September 12). The U.S. Financial Crisis. *Council on Foreign Relations*. https://www.cfr.org/timeline/us-financial-crisis
- Richter, Felix. (21 March 2023). *Bank Runs: When Banks Get Caught in a Spiral of Fear.* Statista, Statista Inc. https://www.statista.com/chart/29540/bank-runs-explained/
- Sullivan, B., & Gura, D. (2023, March 14). *What to know about the Silicon Valley Bank collapse, takeover and fallout*. NPR. https://www.npr.org/2023/03/14/1163135286/silicon-valley-bank-collapse-fallout-whats-next
- Ziady, Hanna. "Depositors Pulled $75 Billion from Credit Suisse as It Veered toward Collapse | CNN Business." *CNN*, 24 Apr. 2023, www.cnn.com/2023/04/24/investing/credit-suisse-bank-withdrawals-total/index.html.