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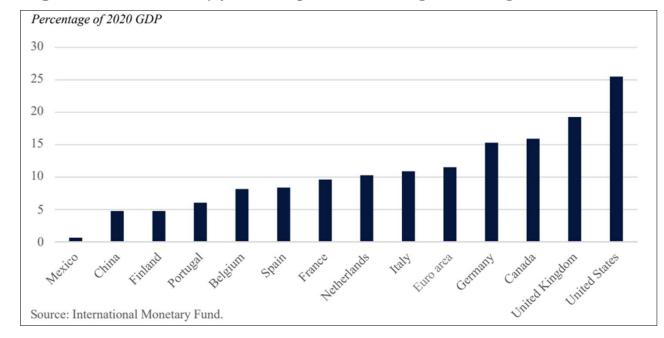
## Why Did America's Banking System Wobble in Spring 2023?

- Covid recession, response, and inflation were global.
- America's financial system was not resilient
- Thesis: America's large fiscal and monetary response created a deposit bubble that banks invested in low yielding securities, losing value when rates rose sharply.
- Federal Reserve in the middle of it all:
  - Monetary policy and stimulus provider
  - Bank regulator
  - Emergency lender
- Solution: Narrow the Fed's growing mandate

#### Setting the Stage: Covid Recession and Recovery

- US has surprisingly large fiscal stimulus
  - Banks are used as payment mechanism
- Federal Reserve given substantial role in stimulus, blending of monetary and fiscal policy
  - Bails out debt holders
  - Juices mortgage market
  - Delivers massive cut in funding costs to large businesses

Figure 1 Discretionary fiscal response, 2020: Q1-2021: Q3



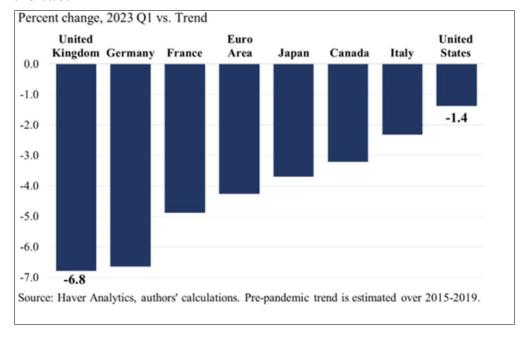
Source: (CEA 2022, 102)

Original Data Source: (International Monetary Fund 2021)

#### Go Big Goes Well? At First

- US features fastest recovery post-Covid, seemingly justifying large fiscal/monetary stimulus.
- Did inflating the balloon work?

*Figure 3* Real GDP shortfall relative to pre-pandemic trends.

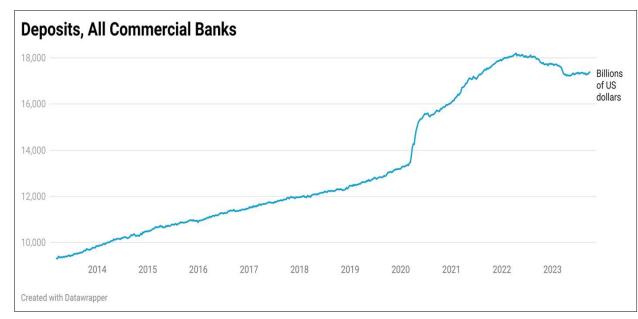


Note: Pre-pandemic trend is estimated over 2015-2019. Source: (Harris and Sinclair 2023)

#### Where did the Covid money go?

- Stimulus piles up in bank deposits
- Too much money or too poorly targeted?
- Banks hesitant to lend:
  - Low interest rate environment
  - economic uncertainty
  - regulation

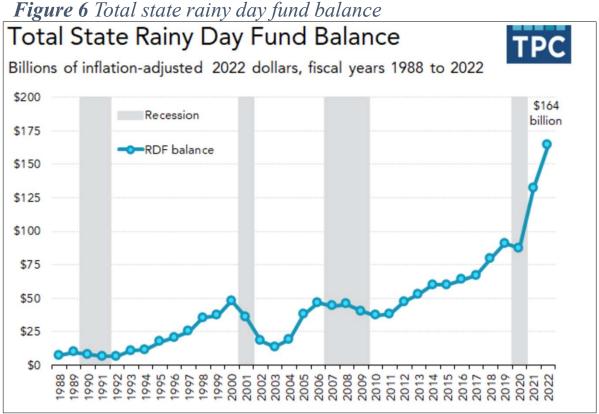
Figure 5 Deposits, all commercial banks.



Adapted from: (FRB 2023a).

### Example of Deposit Increase from Covid Stimulus: State and Local Governments

- Covid pumped billions to state and local governments who were unable to spend it.
- Stock-piled in rainy day funds back at banks.



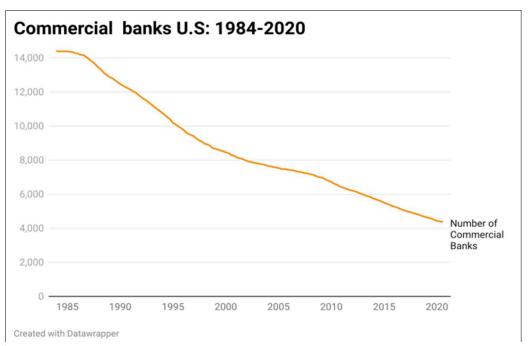
Source: (Boddupalli 2023).

Original Data Sources: National Association of State Budget Officers. State Rainy Day Fund
Balances Historical Data Set, 1988-2024. June 2023; Bureau of Labor Statistics. Consumer Price
Index. "R-CPI-U-RS Homepage: Updated R-CPI-URS, All items, 1977-2022." 2023.

#### America's Financial Instability

- Large number of small banks historical artifact
- Part of a fragmented regulatory system:
  - OCC Federal Banks
  - FDIC State non-member
  - FED State member + all bank holding companies

Figure 4 Commercial banks U.S

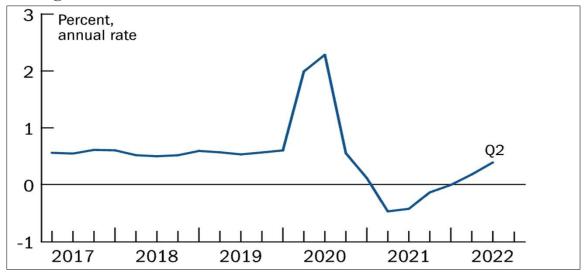


Adapted from: (Federal Financial Institutions Examination Council (US) and Federal Reserve Bank of St. Louis 2023).

#### Bank balance sheets during Covid:

- Banks prepared for a worse recession / slower recovery than realized
- Is being prudent good or bad for "financial stability?"

**Figure** 7 Provisions for loan and lease losses as a share of average loan and leases

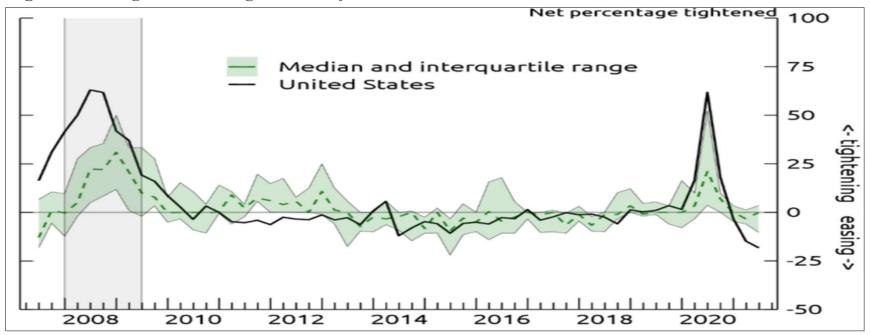


Source: (FRB 2022).

Original Data Source: Call Report and FR-Y-9C.

#### Personal Lending: Retrenchment

*Figure 8* Changes in Lending Standard for Households

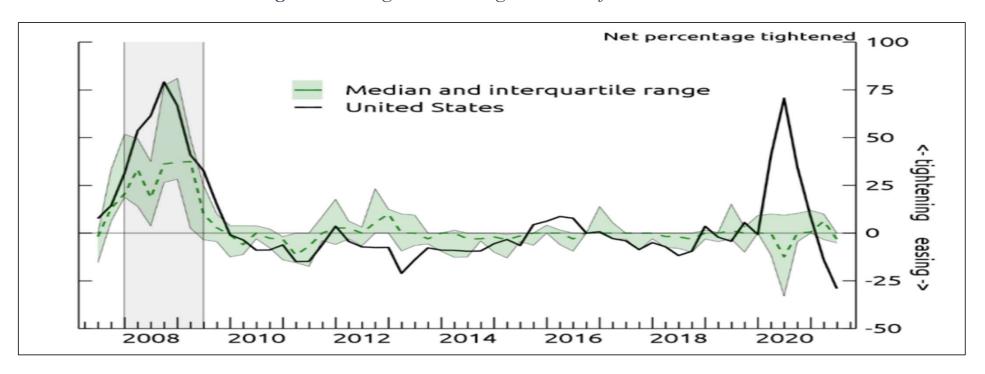


Note: The sample range is the interquartile range of lending standards for France, Germany, Italy, Japan, Netherlands, Poland, South Korea, Spain, United States, and United Kingdom. The shaded area denotes the GFC. Source: (Bodovski et al. 2021)

Original Data Sources: Bank of England, Bank of Japan, Bank of Korea, European Central Bank, Federal Reserve Board, and National Bank of Poland.

#### Corporate Lending Retrenchment

Figure 9 Changes in Lending Standards for Firms

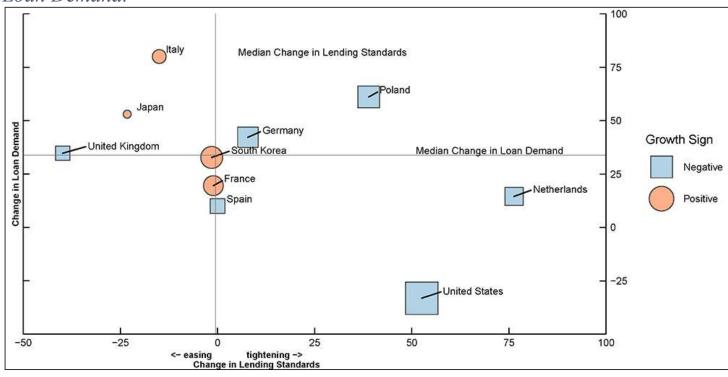


Source: Ibid

#### US global outlier

 US banks tightened more than the rest of the world while also seeing less demand for lending, due to larger stimulus

**Figure 10** Changes in Commercial and Industrial Loans, Credit Standards, and Loan Demand.



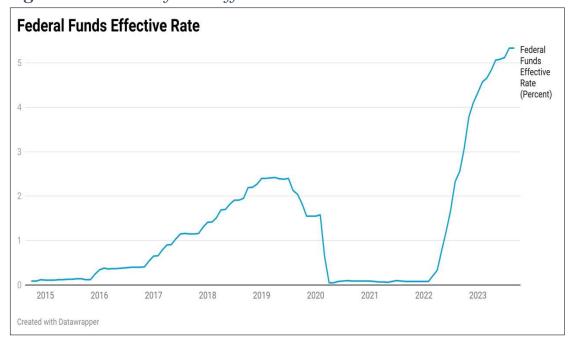
Notes: Tightening Credit Standards refers to the net percentage of banks reporting a tightening of credit standards. Increase in Loan Demand refers to the net percentage of banks reporting an increase in the demand for loans over 2020:Q2-Q3. C&I loans.

Source: Ibid.

### Fed's Monetary Policy U-Turn

- Fed's 500+ bp increase historically sharp
- Catches banks off-guard

Figure 11 Federal funds effective rate



Adapted from: (FRB 2023b).

#### Banks over invested in low yielding debt

Figure 12 Unrealized Gains (Losses) on Investment Securities.



Note: Insured Call Report filers only. Unrealized losses on securities reflects the difference between the market value as of quarter end and the book value of non-equity securities. This calculation does not account for any unrealized gains or losses in "accumulated other comprehensive income" because they cannot be derived from Call Reports for the industry.

Source: (Federal Deposit Insurance Corporation 2023b).

#### SVB: Right Under the Fed's Nose

- Fed regulated SVB head to toe
- Supervision at SF Fed poor and conflicted
- SVB piled up excess, uninsured deposits and invested in MBS (less so Treasuries)

Figure 13 Selected balance sheet items of Silicon Valley Bank as reported to regulators in 2019

Dollar amounts in thousands		mortized Cost of irity Securities		Fair Value of Sale Securities	
10. U.S. Treasury securities	RCON0211	0	RCON1287	6,778,868	10
11. U.S. Government agency obligations (exclude mortgage-backed securities)	RCON8492	518,728	RCON8495	99,547	11
12. Securities issued by states and political subdivisions in the U.S	RCON8496	1,785,951	RCON8499	0	12
13. Mortgage-backed securities (MBS):					13
a. Mortgage pass-through securities:					13
1. Issued or guaranteed by FNMA, FHLMC, or GNMA	RCONG389	6,992,008	RCONG390	4,148,791	13
Other mortgage pass-through securities	RCON1709	0	RCON1713	0	13
b. Other mortgage-backed securities (include CMOs, REMICs, and stripped MBS):					13
1. Issued or guaranteed by U.S. Government agencies or sponsored agencies 1	RCONG393	4,546,259	RCONG394	2,863,532	13
All other mortgage-backed securities	RCON1733	0	RCON1736	0	13
14. Other domestic debt securities (include domestic structured financial products and domestic asset-backed securities)	RCONG397	0	RCONG398	0	14
15. Other foreign debt securities (include foreign structured financial products and foreign asset-backed securities)	RCONG399	0	RCONG400	0	15
16. Investments in mutual funds and other equity securities with readily determinable fair values <sup>2</sup>			RCONA511	NR	16
17. Total held-to-maturity and available-for-sale securities (sum of items 10 through 16)	RCON1754	13,842,946	RCON1773	13,890,738	17

Source: (Silicon Valley Bank 2019)

# Over 2 years SVB adds over \$77B in low rate securities it can not liquify

Figure 14. Selected balance sheet items of Silicon Valley Bank as reported to regulators in 2022

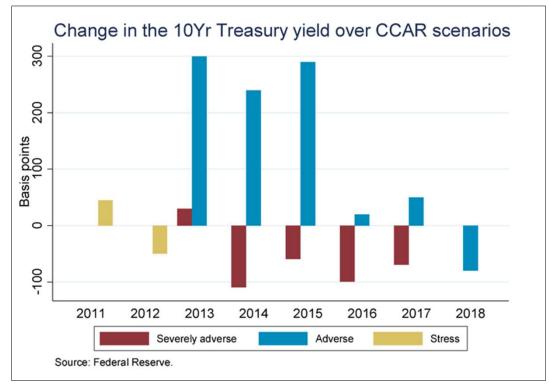
Dollar amounts in thousands		mortized Cost of urity Securities	(Column B) Fair Value of Available-for-Sale Securities		
0. U.S. Treasury securities	RCON0211	0	RCON1287	13,130,000	10
1. U.S. Government agency obligations (exclude mortgage-backed securities)	RCON8492	486,000	RCON8495	101,000	11
12. Securities issued by states and political subdivisions in the U.S		7,417,000	RCON8499	0	12
3. Mortgage-backed securities (MBS):					13
a. Mortgage pass-through securities:					13
1. Issued or guaranteed by FNMA, FHLMC, or GNMA	RCONG389	57,705,000	RCONG390	6,603,000	13
2. Other mortgage pass-through securities	RCON1709	0	RCON1713	0	13
b. Other mortgage-backed securities (include CMOs, REMICs, and stripped MBS):					13
1. Issued or guaranteed by U.S. Government agencies or sponsored agencies 1		25,011,000	RCONG394	2,141,000	13
2. All other mortgage-backed securities	RCON1733	0	RCON1736	0	13
4. Other domestic debt securities (include domestic structured financial products and domestic sset-backed securities)	RCONG397	708,000	RCONG398	0	14
5. Other foreign debt securities (include foreign structured financial products and foreign sset-backed securities)	RCONG399	0	RCONG400	0	15
6. Not applicable.					16
7. Total held-to-maturity and available-for-sale debt securities (sum of items 10 through 15)	RCON1754	91,327,000	RCON1773	21,975,000	1

Source: (Silicon Valley Bank 2022)

#### Fed Stress Tests: Asleep at Switch

- Fed stops stress testing for rising rate environment in 2015
- If the central bank is not testing for interest rate risk then what is its core competence as a bank regulator?

**Figure 16** Change in 10-Yr Treasury yield over CCAR scenarios.



Source: (Nelson and Covas 2018)

#### Debunking False Narrative: Money moved faster

- Bank deposits become electronic in early 1980s.
- Fed ironically among last central banks to enact real time retail payments (FedNow launched in July 2023).
- Reliance on uninsured deposits (large corporate/tech) explains SVB

Figures 18 and 19 Selected Deposit Runs and SVB deposit base

		Deposit insurance			
Bank	Date run started	coverage (%)	Total outflow (%)	Duration of outflow	
Continental Illinois	May 7, 1984	15	30	10 days (7 bus. days)	
Washington Mutual	Sep. 8, 2008	74	10.1	16 days (12 bus. days)	
Wachovia	Sep. 15, 2008	61	4.4	19 days (15 bus. days)	
Silvergate	2022 Q4	11	52	Possibly 7 days or less	
Silicon Valley Bank	Mar. 9, 2023	6	25 + 62*	1 day + expected next day	
Signature Bank	Mar. 10, 2023	10	20 + 9*	1 day + expected next day	
First Republic	Mar. 10, 2023	32	57	About 7-14 days (5-10 bus. days)	



Note: \*Figures with asterisks are the expected amount of outflows that were scheduled to go out the next business day, but did not actually occur because the banks were closed.

Source: (Rose 2023)

## Conclusion: SVB highlights Federal Reserve failure as bank regulator

- Fed gained regulatory authority in response to GFC (Dodd-Frank Act)
- Covid recession first test of Fed's enhanced bank regulatory competence
- Fed fails
  - Failure particularly poor given the proximate cause was Fed's monetary policy, poor supervision of SVB, and failure of new 'macroprudential' stress test tool
- Attempts to blame social media, faster money are false
- Solution: improve the Fed as a regulator or replace it