

Lessons Forgotten: Financial crises and bank supervision

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Research and debate over financial regulation over the last 15+ years (post 2008)

- Basel III
- Measuring counter party risks
- Contingent capital (TLAC etc.)
- Liquidity Coverage
- Stress Tests

Supervision is key:

Regulations have effect only if enforced

- Capital regulations (other than 100%) require measurement of capital and dynamic adjustment (recapitalization, portfolio adjustment, or closure).
- Selective enforcement of capital by asset class is an incentive to hold the assets which lead to little required future capital.
- In the US, Dodd-Frank in 2010 had many complicated new rules, but we saw significant bank failures (and deposit insurance of uninsured deposits) in the spring of 2023.
- This is in contrast to few failures after the 1991 FDICIA law.

What is my view of supervision?

- Supervision is verifying and keeping track of the basics, data that any reasonable client of an institution would want to know.
- Reporting on or punishing things that an institution would want to commit not to do, but only high level (easy to verify) stuff. **Not detailed monitoring.**
- Diversification, leverage/capital, use of risk management tools and measuring very basic benchmarks.
- There are “rule of law” issues: should supervisors have discretion?

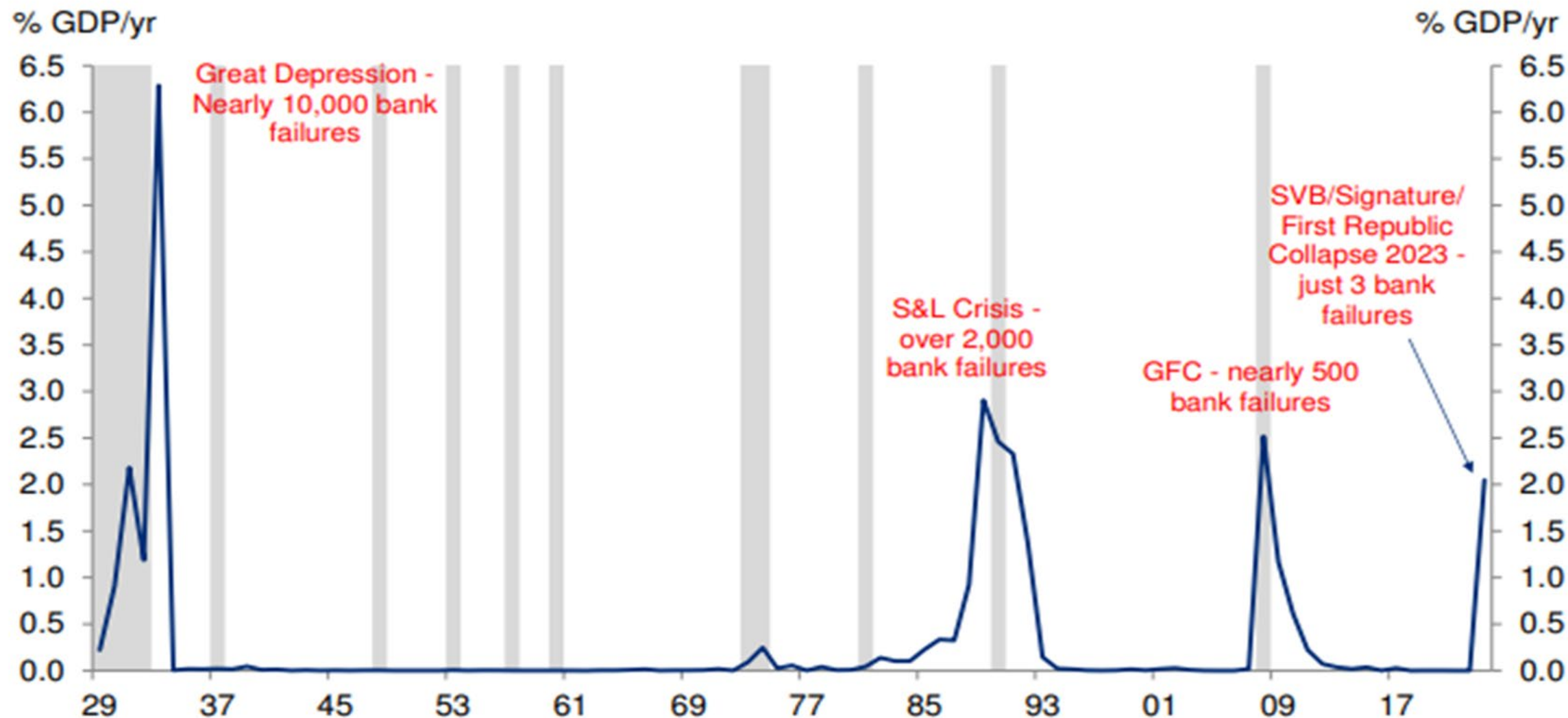
What can the world learn from 2023 failure of regional banks in the US?

- How did US bank supervision fail?
- Financial Stability is in question again.
- World interest rate increases to respond to inflation make interest rate risk top of mind today.
- We saw the ex-ante and ex-post problems with “Hold to maturity” accounting and interest rate risk.
- As a result, even the most basic parts of bank supervision as a Macro Prudential Policy failed.

What happened in the US in March 2023?

- Rapid run on Silicon Valley Bank **SVB** (over two days, fail day 2)
- Runs spread to other midsized banks (First Republic).
- Over 60% of **SVB** assets were medium term *liquid* US government agency securities (not bank loans)
- Interest rate increases led to reduced market value of these securities.
- **SVB** fails, wipes out equity, and FDIC guarantees all deposits (even those exceeding the limit on deposit insurance).
- Banks around the world worry about runs.

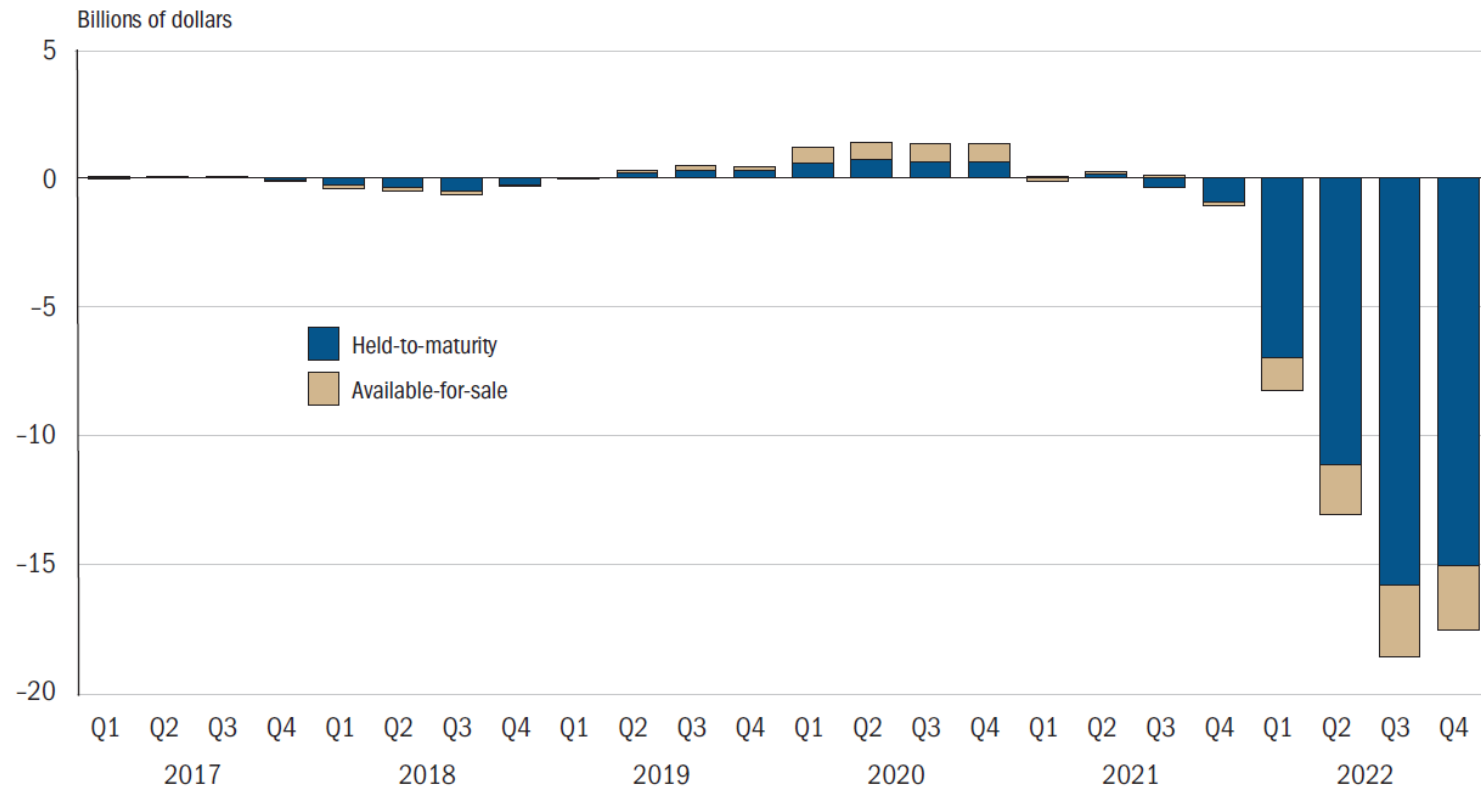
Figure 2: Total asset value/GDP of failed banks in United States over the last century



Source : FDIC, BEA, Deutsche Bank

Silicon Valley Bank's Supervisors did not consider the market value of liquid securities

Figure 9. Estimated unrealized gains (losses) on SVBFG's investment portfolio securities



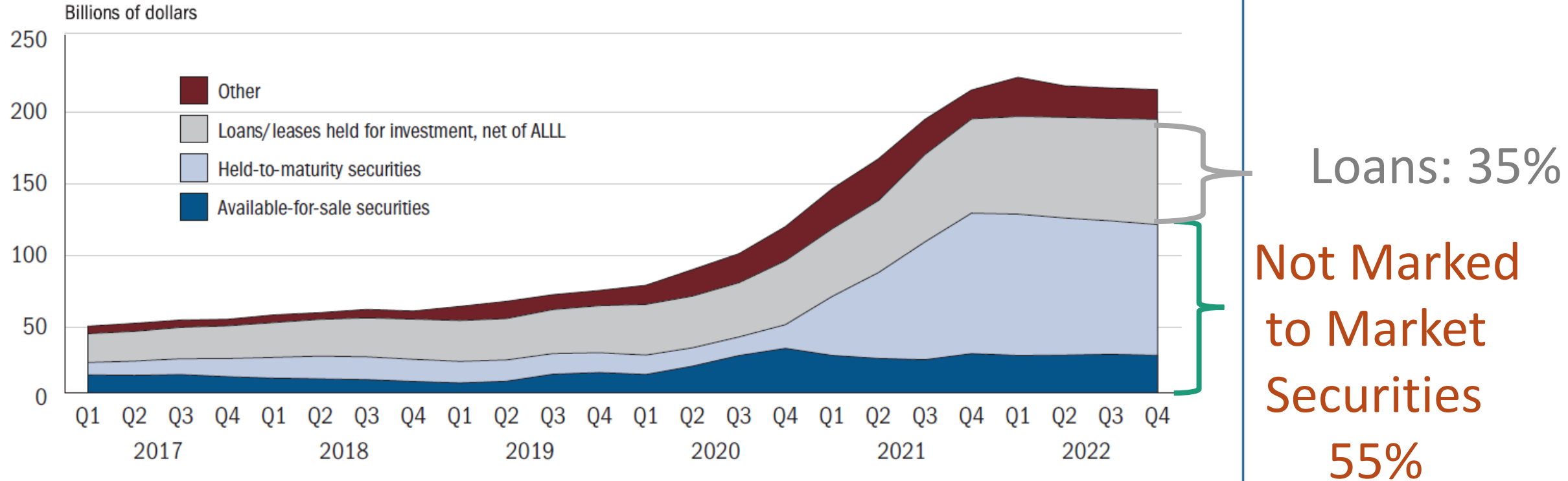
2022Q4
Book Equity was
\$15.46 bn,
Unrealized losses
exceed this.

Note: Estimated unrealized losses on securities calculated as: (held-to-maturity fair value less held-to-maturity amortized cost) + (available-for-sale fair value less available-for-sale amortized cost). Estimates do not reflect losses related to available-for-sale securities that were transferred to held-to-maturity and do not reflect hedging impacts or tax consequences.

Source: FR Y-9C.

Silicon Valley Bank's losses were mainly HTM

Figure 8. Composition of SVBFG assets



Note: The key identifies areas in order from top to bottom. ALLL is allowance for loan and lease losses.

Source: FR Y-9C.

Why so many agency securities (or fixed rate mortgages at First Republic) on the books?

- No need to raise more capital if interest rates increase due to not marking to market.
- Agencies are liquid assets for liquidity rules.
- Agencies and mortgages have low capital requirements due to little default risk.

What is the point of not marking everything to market?

- Makes some sense for illiquid assets, which might record fire sale prices or have estimated prices with no trading.
- Makes no sense for liquid assets, such as US Agency.
- It is counterproductive, because it makes depositors worry about solvency of “well capitalized” banks because capital is mis-measured.
- Runs on insolvent banks are unavoidable (especially if their funding costs increase with interest rates).

A cost-benefit approach to allowing banks to add risky assets financed by deposits

- Do banks have a comparative advantage in holding the assets?
- Examples of benefits:
 - Monitored C&I loans that are illiquid
 - Business lines of credit
- If benefits are large, then the complicated supervision and regulation system of banks can make adding such a risk desirable.
- If not, the asset should not add to deposit risk (have a high initial capital requirement per unit of risk and must be marked to market).

Banks do not add social value taking interest rate bets on liquid US agency securities.

- US agency securities do not benefit from delegated monitoring by banks as in Diamond [1984].
- Large Interest rate bets are not diversifiable
- Banks do not create liquidity, as in Diamond-Dybvig [1983], by holding long-term liquid assets.
- Deposit insurance or implicit guarantees should not be a way to bet on interest rates in liquid securities (Hellwig [1994]).

Summary: Ex post effects lack of market valuation of liquid assets

- Not Marking to Market sets up a solvency run on uninsured deposits if interest rates increase.

Jiang, Matvos, Piskorski & Seru [2023], Drechsler, Savov, Schnabl & Wang [2023]

- **Unless a temporary increase in deposit insurance follows, this can be a contagious run on uninsured deposits.**
- Good supervision, including mark to market, **and dynamic actions to keep banks well capitalized** are essential for uninsured deposits to be credible.

Reexamining the few bank failures post
FDICIA (1991).

The record on FDICIA (1991) reform

- In response to not closing **market value insolvent** Savings and Loans, who gambled for resurrection and caused great losses.
- Regulatory intervention at higher levels of **(book) capital** than the minimum level for continued operation.
 - Limit dividends
 - Limit interest rates paid on deposits
 - Prompt corrective action
 - Closure
- Book capital still has lots of regulatory discretion. (even under Basel II and Basel III which measure ex-ante market risks).
- Least cost resolution except “systemic risk exception” for bailouts (limited open bank assistance).

Figure 2: Total asset value/GDP of failed banks in United States over the last century

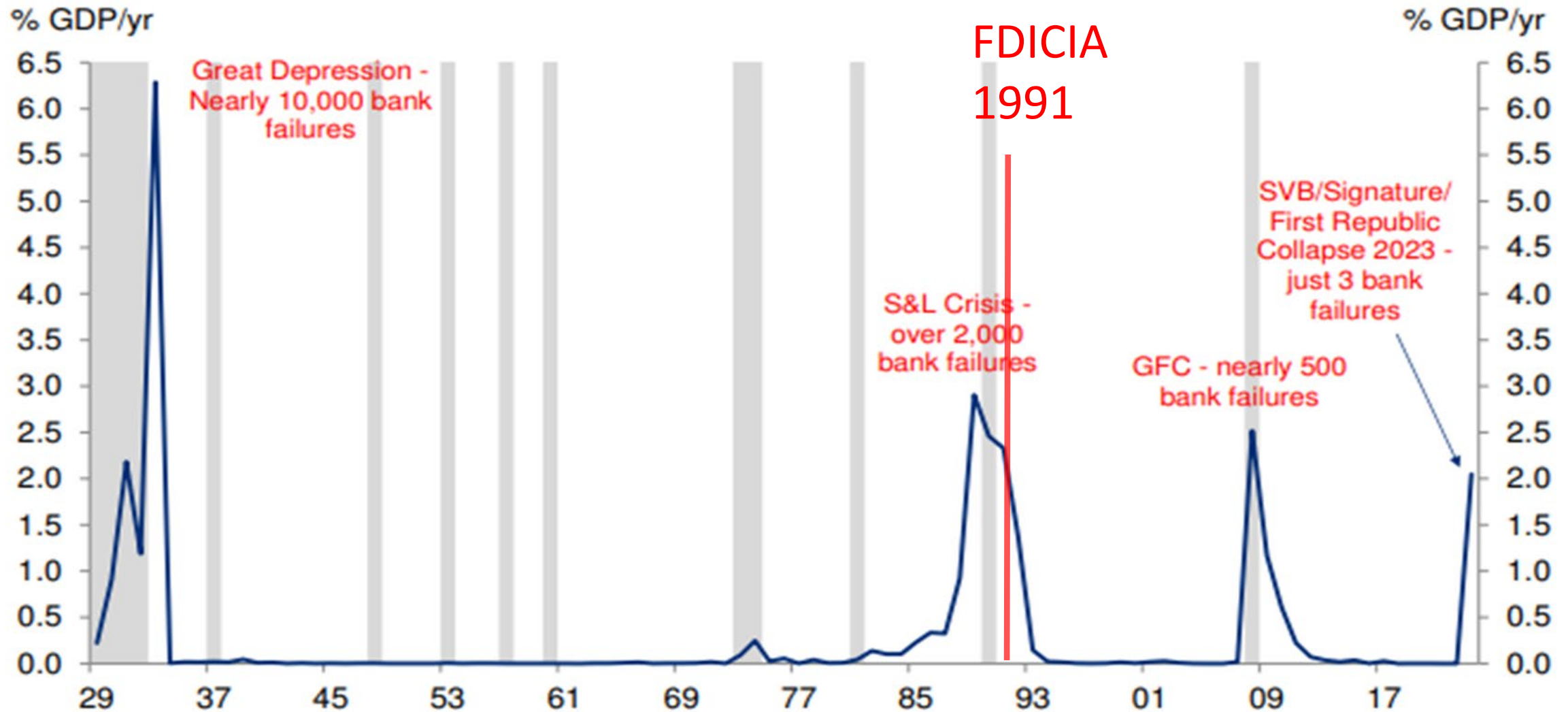
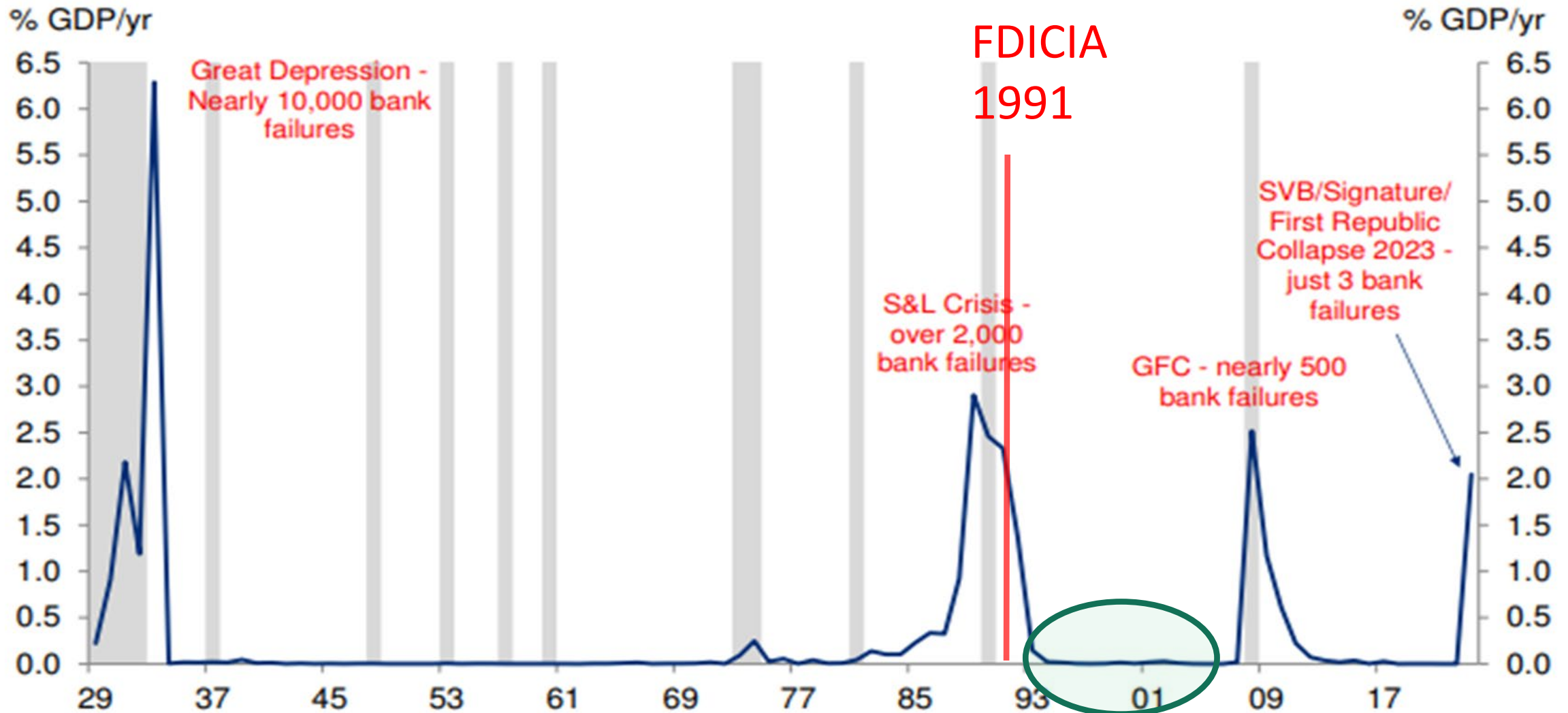
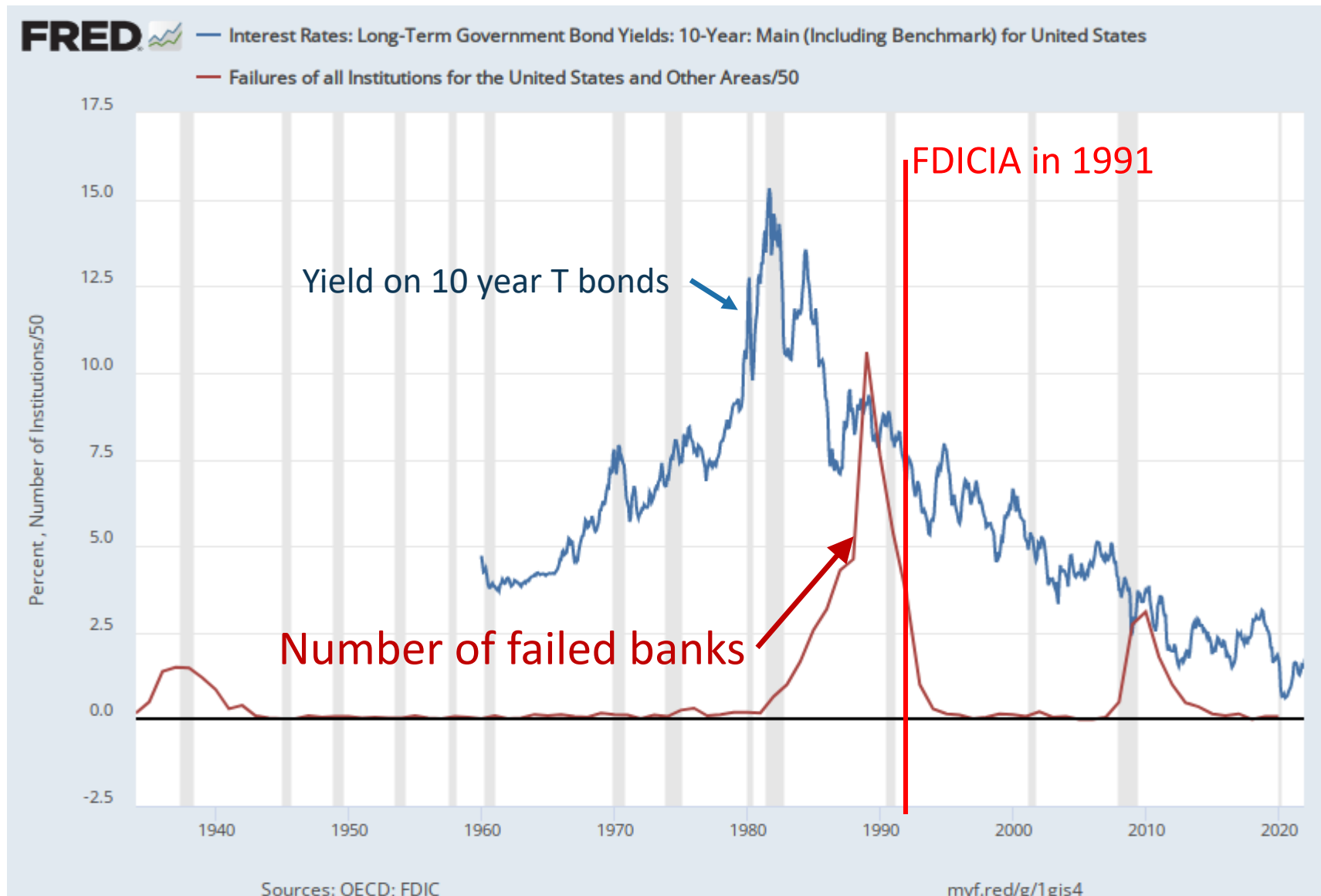


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FDICIA seems to have worked well.



FDICIA worked well, but with falling interest rates, where security losses were rare



Mark to (interest rate) markets and regulator discretion

- Regulators are reluctant to mark held to maturity securities and loans to market for capital requirements.
- Market prices help commit (and discipline?) regulators.
- Supervisors and regulators resist using market prices in their mandates, not trusting markets and not wanting to be forced to respond (with capital and other requirements) to the dictates of the market.
- This is especially important in interest rate risk, where absent effective macro-prudential regulation, monetary policy could (should?) consider its impact on financial stability.

How Low for Long , Forward Guidance, and QE Contributed to build up of rate risk of banks

- Low for long beliefs and especially forward guidance both reduce long term interest rates but also imply very little interest rate risk of buying long term bond financed by short deposits.

Forward guidance without actual commitment allows for large “unexpected” rate increases.

- Large unexpected rate increases can lead to unstable financial institutions. These cause a rapid and excessively volatile response to monetary tightening.

See Diamond-Rajan [*JPE*, 2012]

Effects of ignoring very high sensitivity of (low) market net worth to interest rates

- Monetary policy to raise rates either:
 - A. Has a supercharged effect via financial instability. Or
 - B. Is constrained by the threat of financial stability (risking some loss of inflation credibility).
- If B, and the constraint matters, the idea that macro prudential policy allows independence of monetary policy from financial stability policy no longer makes sense.