Silicon Valley Bank and Banking Stress of 2023:

Some Reflections…

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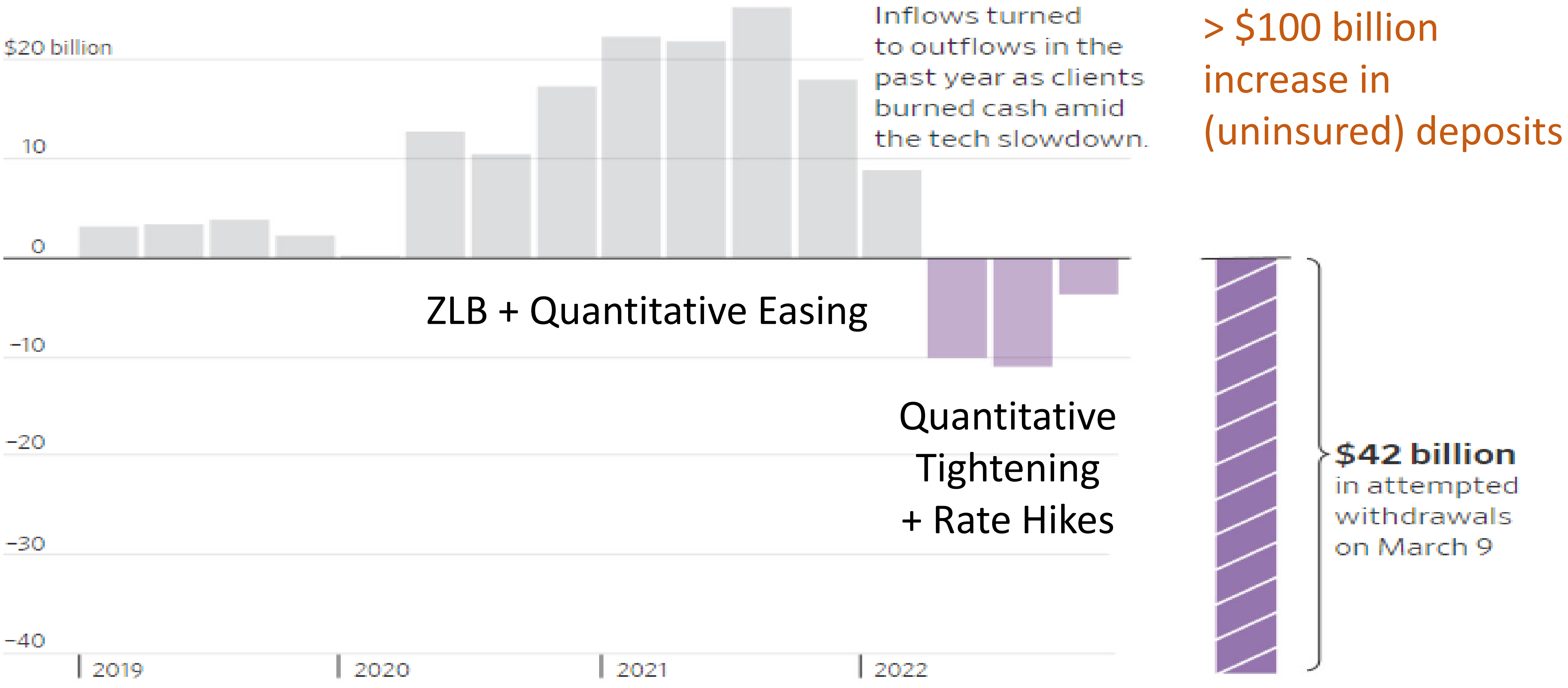
Outline

I. Uninsured deposits – the macro perspective

II. Liquidity risk, especially of small and mid-sized banks, is ratcheting

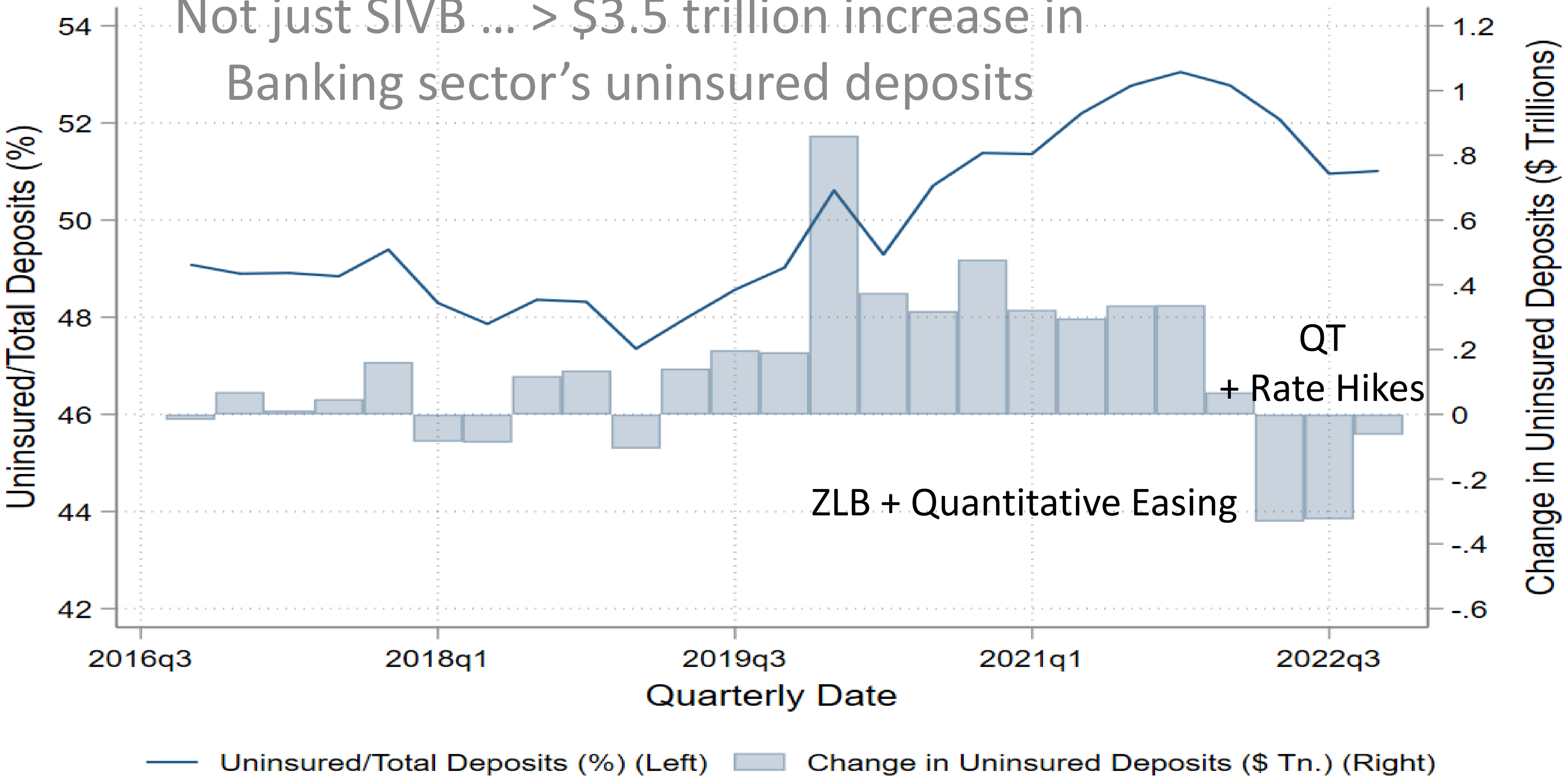
III. Market data (MTM) in supervision to improve financial stability?

I. Leading example: SIVB deposits, quarterly net change



Sources: company filings (quarterly); California regulators (March 9)

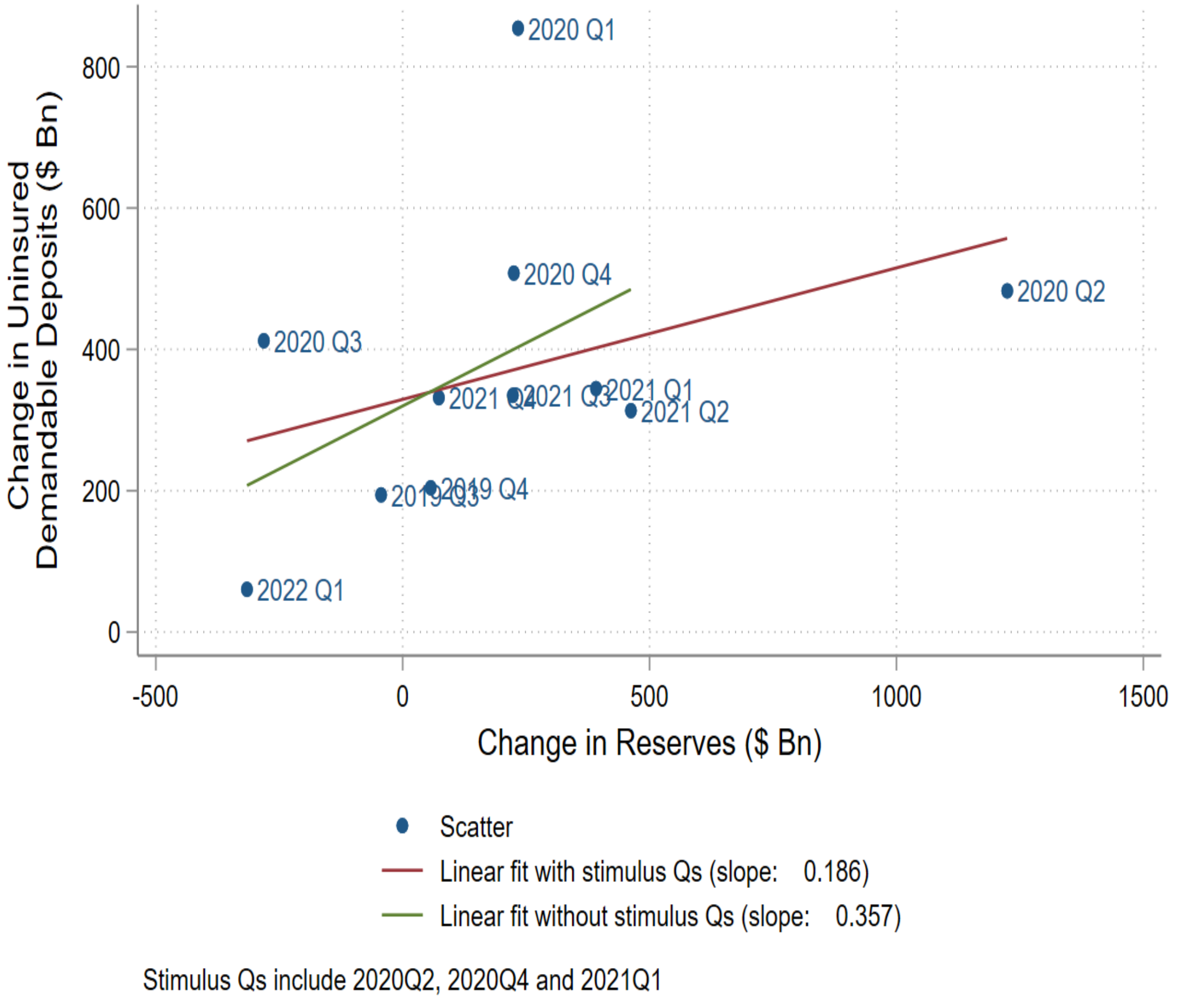
Not just SIVB … > $3.5 trillion increase in Banking sector's uninsured deposits

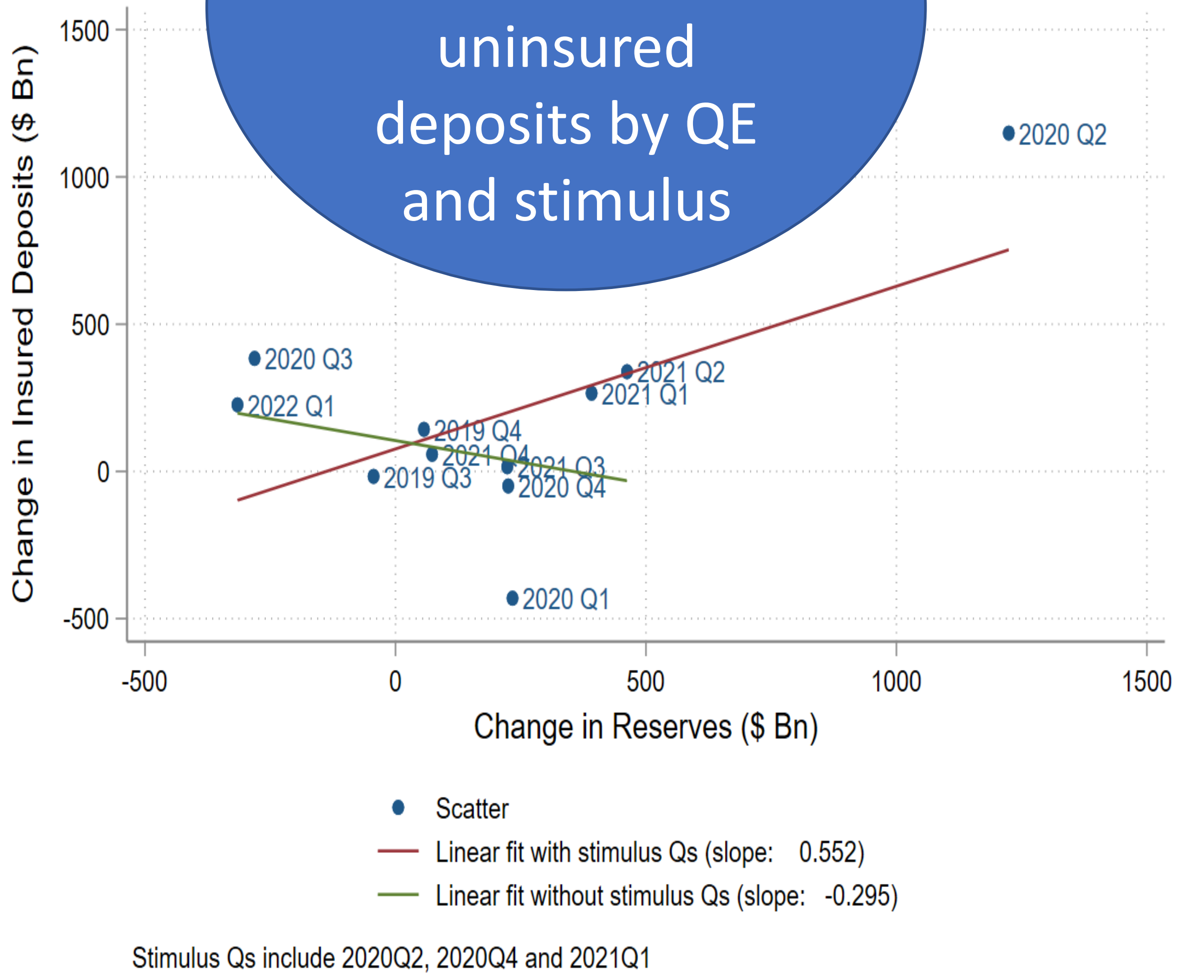


Source: Acharya, Chauhan, Rajan and Steffen "Liquidity Dependence and the Waxing and Waning of Central Bank Balance Sheets", Working Paper, NYU Stern.

Uninsured vs Insured Deposits during Pandemic: QE or Fiscal stimulus?

Insured deposits driven by fiscal stimulus, uninsured deposits by QE and stimulus





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A Key Insight

- Unprecedented expansion of central bank balance sheets since the GFC
- Such QE is not just an expansion of central bank balance sheets

- <u>QE is typically also an expansion of commercial bank balance sheets, on the liability side via the growth of uninsured deposits</u> (see next slide)

Typical QE: Purchase from public/non-banks

Initial Balance Sheet Conditions

FEDERAL RESERVE	
Assets	**Liabilities**
Treasury securities	Reserves held by banks Cash held by the Treasury

BANKING SECTOR	
Assets	**Liabilities**
Treasury securities Reserves at the Fed	Deposits Capital

PUBLIC	
Assets	**Liabilities**
Deposits Treasury securities	Net worth

The Fed Purchases Assets from the Public

Balance Sheet Effects

FEDERAL RESERVE	
Assets	**Liabilities**
Treasury securities +$1	Reserves held by banks +$1 Cash held by the Treasury

Bank balance sheets expand, financed with deposits (typically wholesale or uninsured)

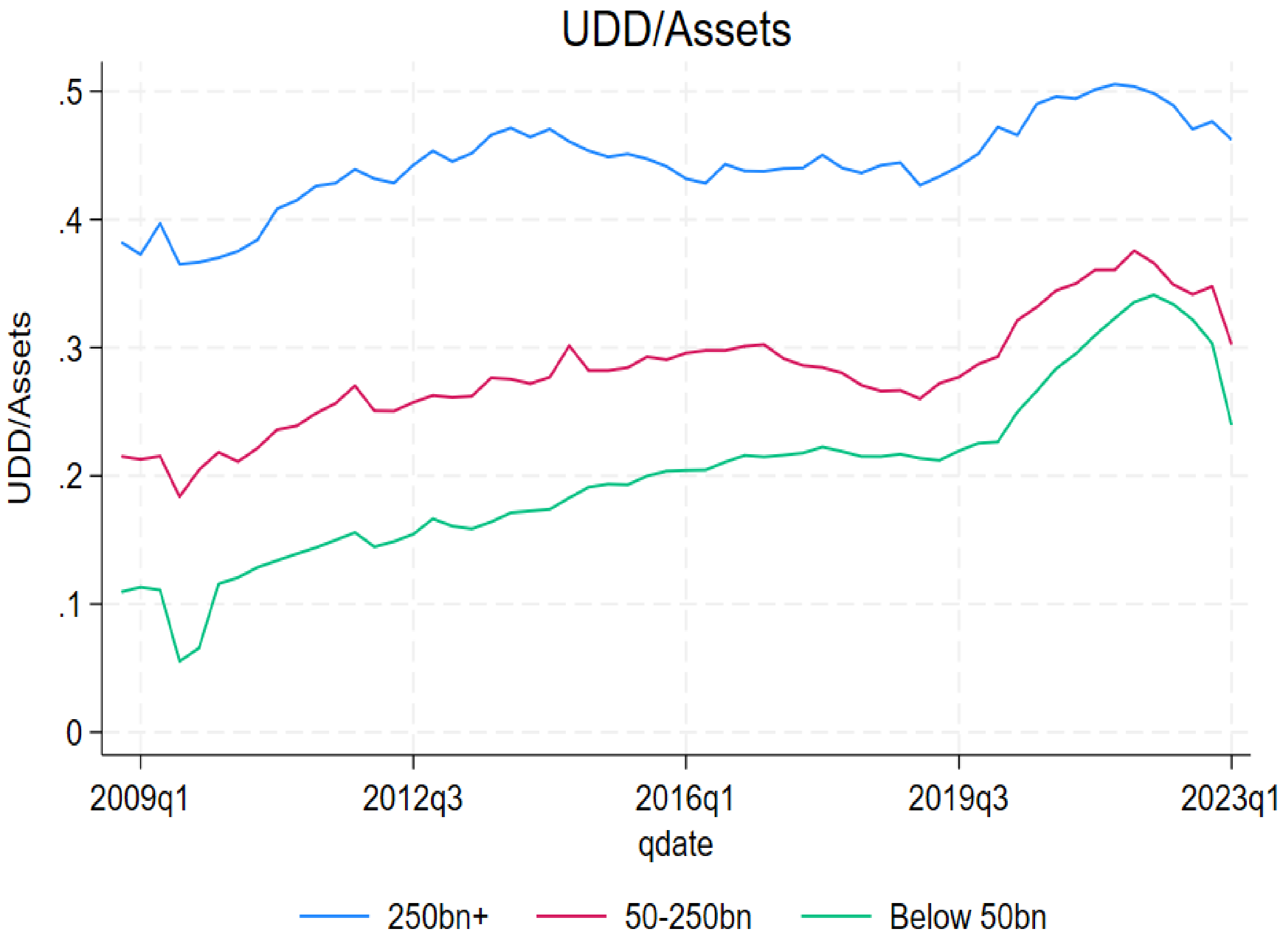
BANKING SECTOR	
Assets	**Liabilities**
Treasury securities Reserves at the Fed +$1	Deposits +$1 Capital

PUBLIC	
Assets	**Liabilities**
Deposits +$1 Treasury securities -$1	Net worth

Source: “How the Fed Changes the Size of its Balance Sheet” (Leonard, Martin and Potter, *Liberty Street Economics,* 2017)

II. Ratcheting-up of Uninsured Demand Deposits

Date	>$250 billion	$50-250 billion	< $50 billion
2008Q3	35.8	20.9	10.4
2014Q3	46.1	30.1	18.3
2019Q3	**44.1**	**27.7**	**21.9**
2019Q4	**45.1**	**28.7**	**22.5**
2021Q4	50.4	37.6	33.5
2022Q4	**49.8**	**34.8**	**30.3**
2023Q1	**46.2**	**30.2**	**23.9**



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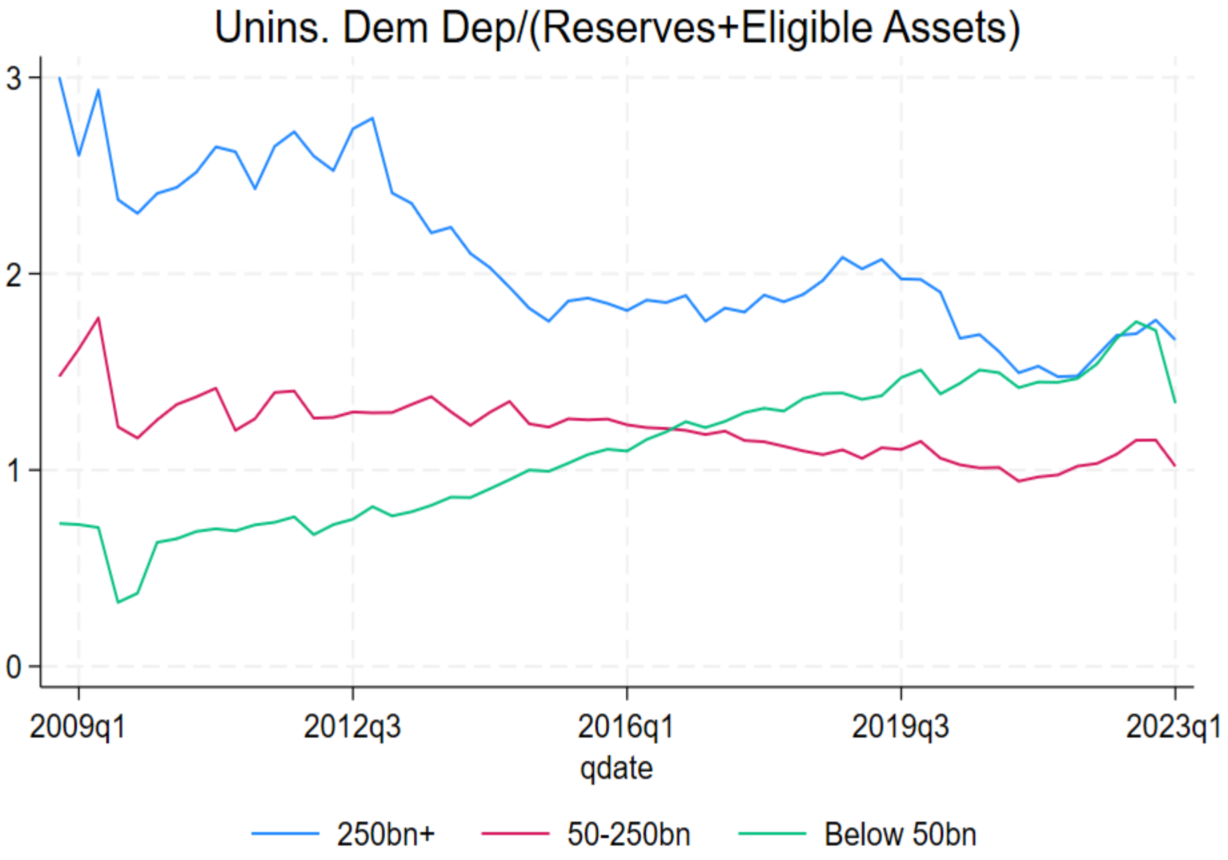
Ratcheting-up of Liquidity Risk

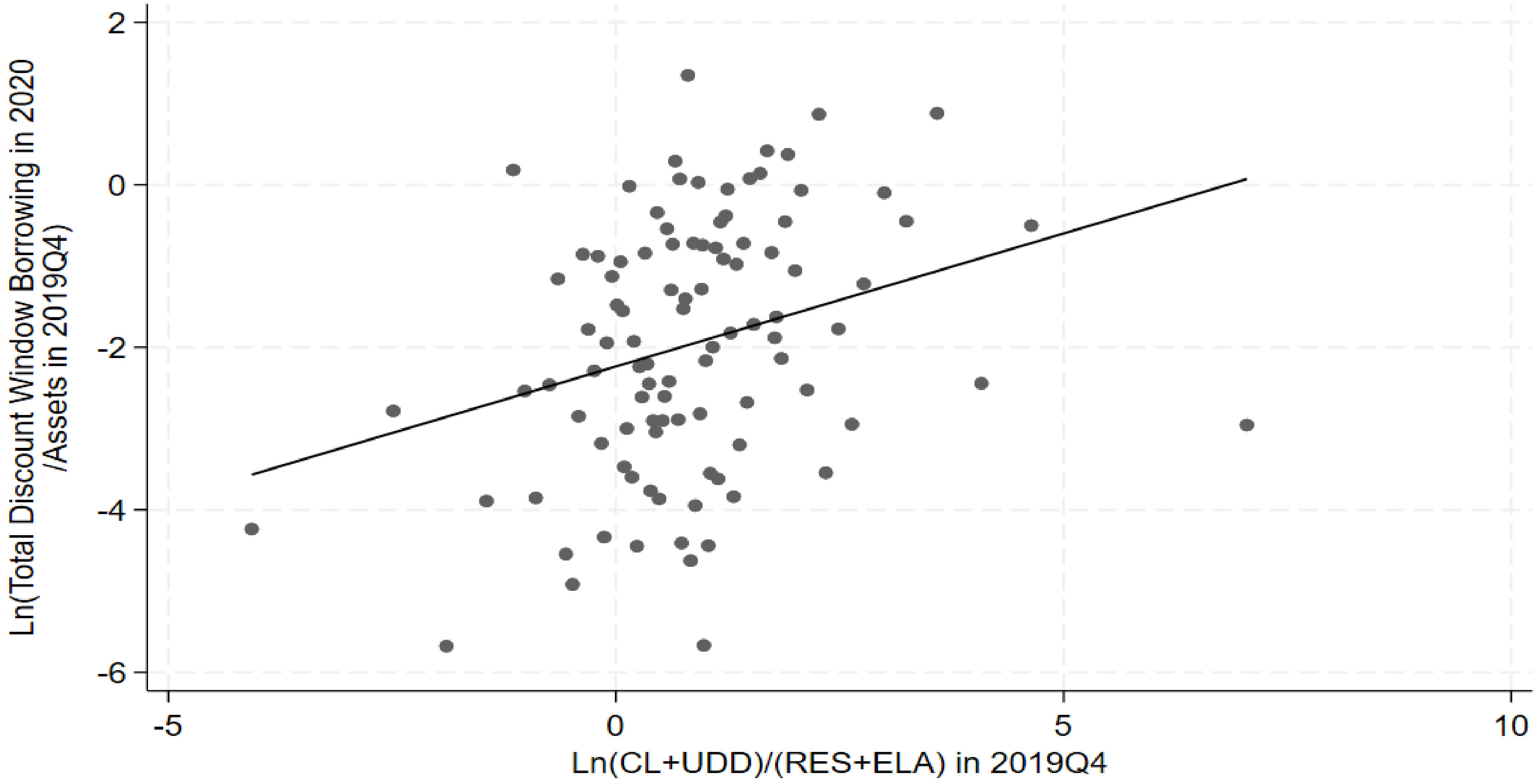
Claims to Liquidity:
(Uninsured Demandable Deposits) /(Reserves + Eligible Assets)

Date	>$250 billion	$50-250 billion	< $50 billion
2008Q3	3.77	2.5	0.76
2014Q3	1.93	1.35	0.95
2019Q3	**1.97**	**1.11**	**1.47**
2019Q4	**1.97**	**1.15**	**1.51**
2021Q4	1.48	1.02	1.47
2022Q4	**1.76**	**1.15**	**1.71**
2023Q1	**1.66**	**1.02**	**1.34**

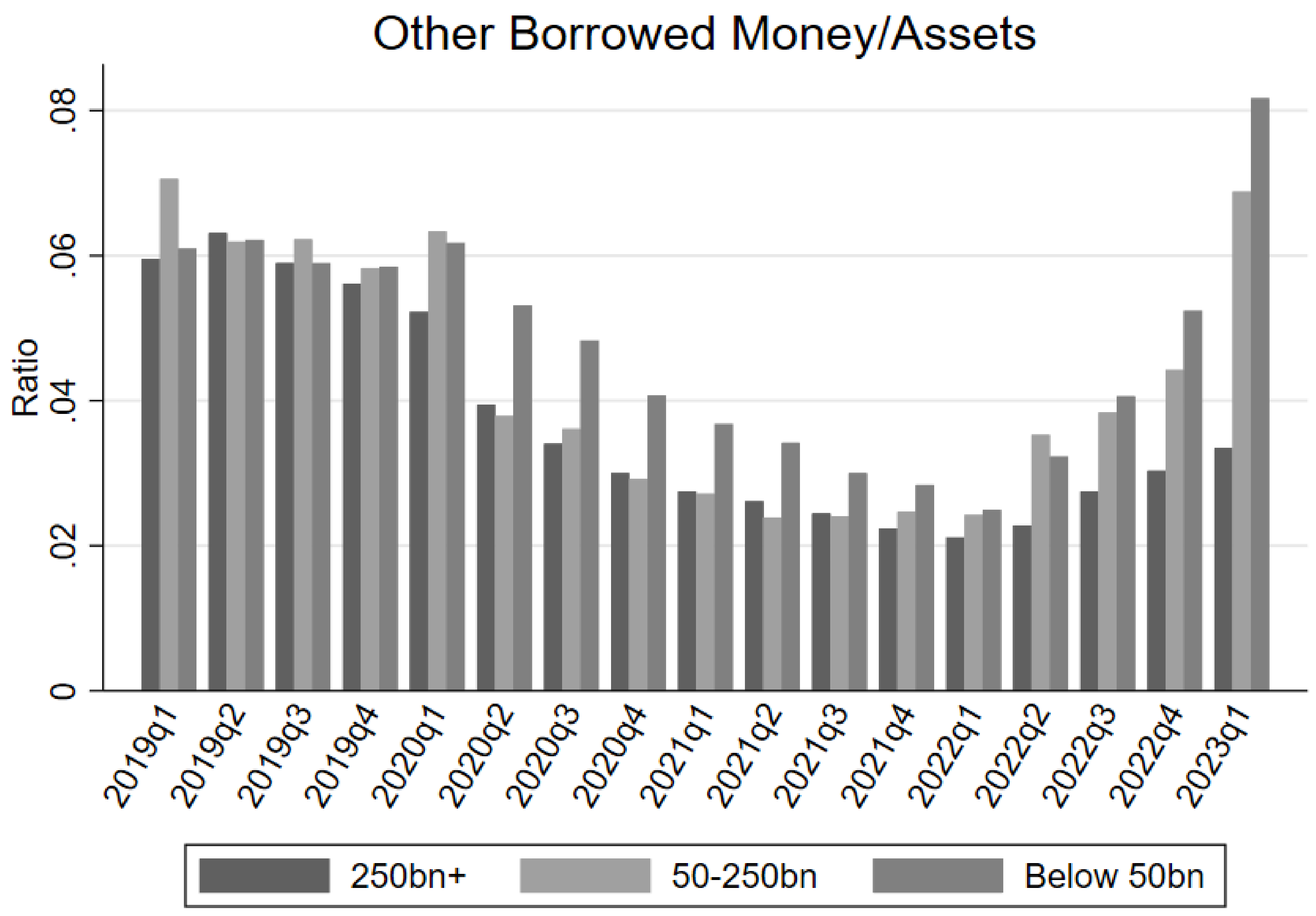


Largest banks becoming safer, smallest banks increasingly at risk of illiquidity

Liquidity Dependence on the Fed: Covid Shock



Implications for discount window borrowing (2020)



Liquidity Dependence on Official Backstops:

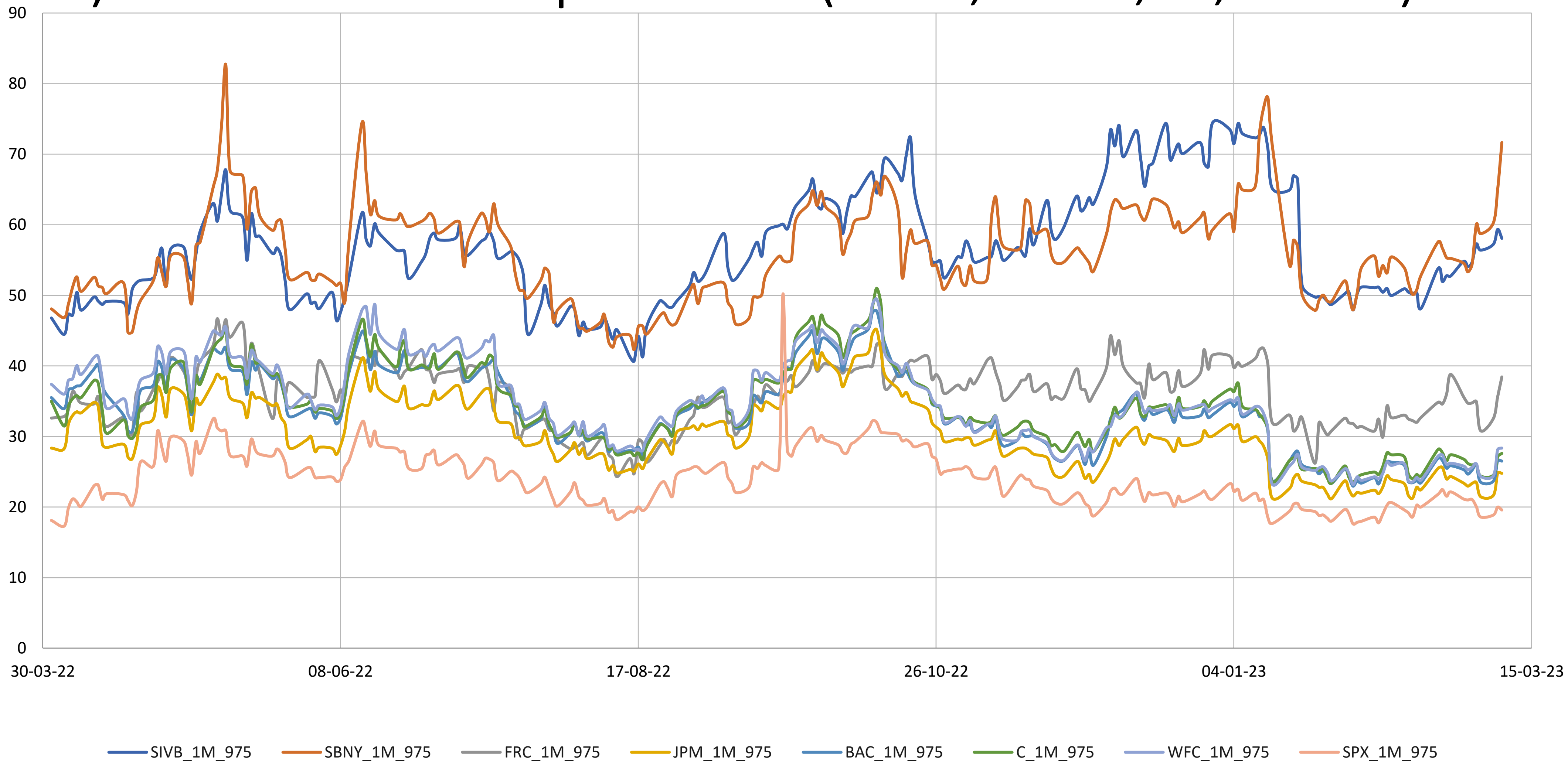
Small and Mid-sized banks, that ratcheted up b/s liquidity risk, became increasingly dependent on FHLB and Discount Window borrowings in 2023…

Large banks were able to retain access to private repo markets

III. Besides liquidity risk, how about market signals?

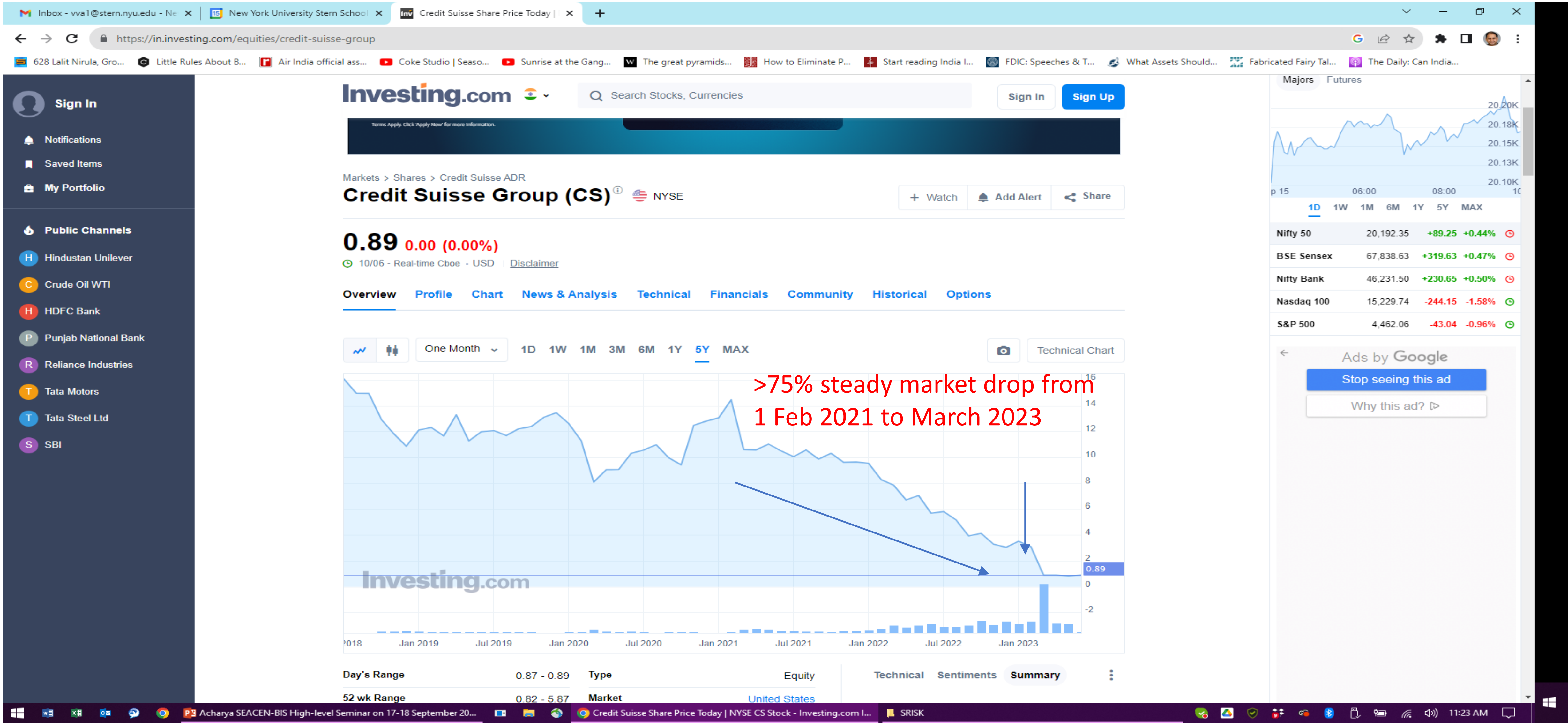
- Virtually no modern bank fails due to book or regulatory capital issues
- Modern banks fail as they fail to raise market funding (in time)
- Markets reflect this risk of banks, certainly in the cross-section
- Supervision can benefit from using market signals
- Ignoring market signals/stress tantamount to embracing forbearance?

Implied Volatility of Failed U.S. Banks (SIVB, SBNY, FRC) Relative to Top Banks (JPM, BAC, C, WFC)



Source: [Silicon Valley Bank and the Banking Stress of 2023](), NYU Stern

Europe (CS): Pay attention to Market Equity!



Hold to maturity versus Marking to market

- Banks have a preference for available-for-sale and marking-to-market in monetary easing periods

- Banks then prefer to switch to hold-to-maturity and avail of AOCI filters in capital requirements during monetary tightening

- The asymmetry reflects a desire for accounting (ROE) profitability

- Accounting affects maturity mismatch (illiquidity) and leverage

- Break the accounting-induced boom-bust cycle by capping HTM, e.g., maximum 25% of investment securities book and/or link it to deposit mix