


RETHINKING POLICIES AND GOVERNANCE FROM RECENT BANKRUPT


Dam Nhan Duc (PhD at Paris Dauphine)
Hanoi, June 2023



PRESENTATION AT ISCEED 2023

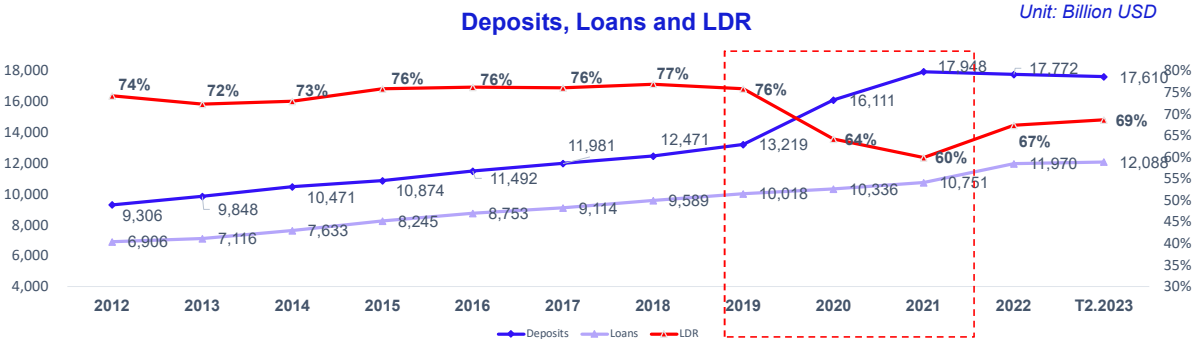
0

Key ratios of the US banking industry



Deposits, Loans and LDR

Unit: Billion USD



Year	Deposits (Billion USD)	Loans (Billion USD)	LDR (%)
2012	9,306	6,906	74%
2013	9,848	7,116	72%
2014	10,471	7,633	73%
2015	10,874	8,245	76%
2016	11,492	8,753	76%
2017	11,981	9,114	76%
2018	12,471	9,589	77%
2019	13,219	10,018	76%
2020	16,111	10,336	64%
2021	17,948	10,751	60%
2022	17,772	11,970	67%
T2.2023	17,610	12,088	69%

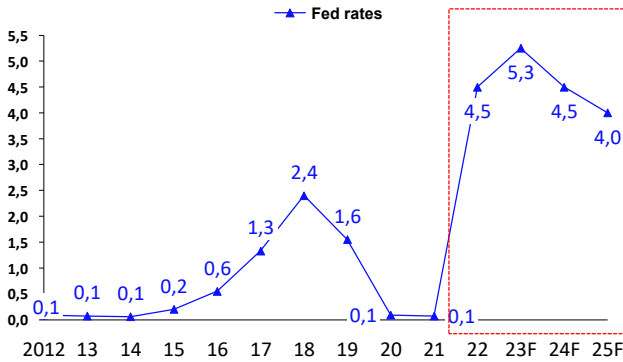
- In 2020-2021, Fed applies expansionary monetary policy to injects money into the economy (buying bonds, financial assets, etc.). Through policy transmission channels, the amount of deposits in banks increased from USD 13.2k billion in 2019 to ~USD 18k billion in 2021 (up ~36%), while weakening credit demand due to Covid-19 epidemics and economic recession pushed system-wide LDR to a record low, from 76% (2019) to 60% (2021).
- With excess capital, banks accelerated disbursement and found alternative investment channels. The push to invest in fixed-rate assets such as mortgage-backed debt securities in period of rising interest rates with no reasonable risk management has put many banks in difficult situations and bankruptcies.

Source: Board of Governors of the Federal Reserve System (US)

1

1

Fed rates increased sharply



Date	Increase	Decrease	Level (%)
MAY 3	25	0	5.00-5.25
MARCH 23	25	0	4.75-5.00
FEBRUARY 1	25	0	4.50-4.75
DECEMBER 15	50	0	4.25-4.50
NOVEMBER 3	75	0	3.75-4.00
SEPTEMBER 22	75	0	3.00-3.25
JULY 28	75	0	2.25-2.50
JUNE 16	75	0	1.50-1.75
MAY 5	50	0	0.75-1.00
MARCH 17	25	0	0.25-0.50

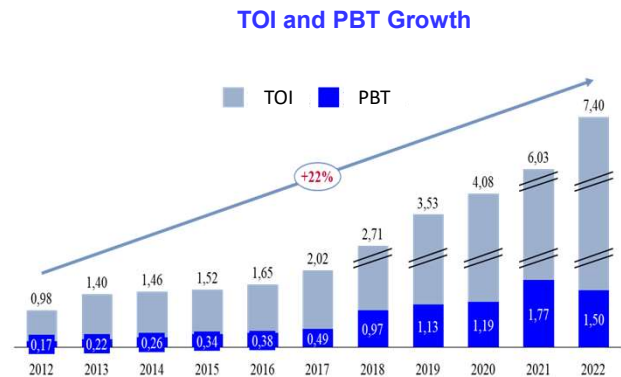
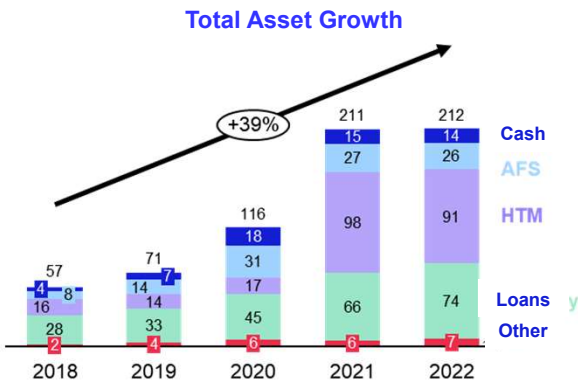
- 7 rate hikes in 2022
- 3 times in 1H2023

Source: Fed

2

2

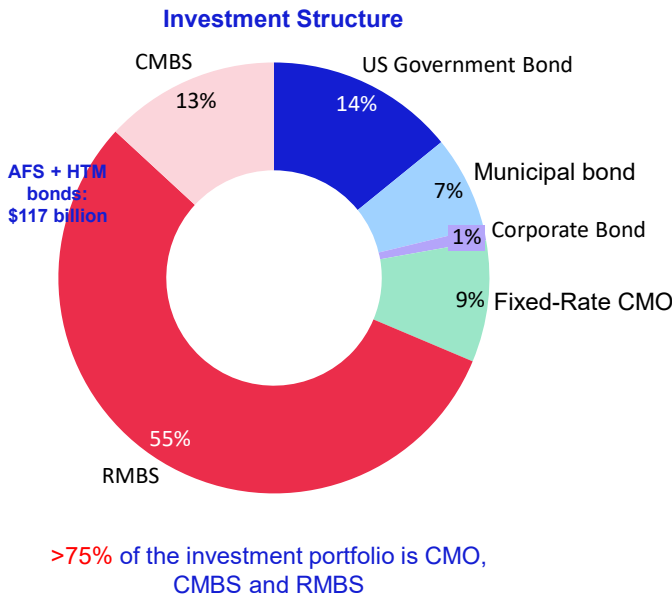
SVB: Impressive growth



- SVB, 40-year-old bank, achieve impressive growth in Total asset, TOI and PBT comparing with the sector, specially over the past 5 years
- SVB had the total asset of about USD 209 billion, ranking 16/4,600 in the US (31 Dec 2022)
- BUT
- Declare bankruptcy in March 2023.

3

SVB: Investment structure

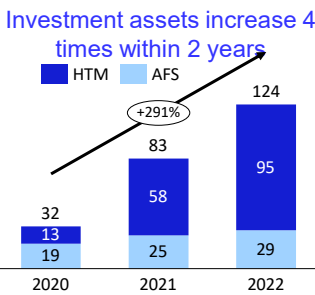


Investment Securities/Total Assets of SVB reaches **55.4%** while the average of the US banking system is ~30%.

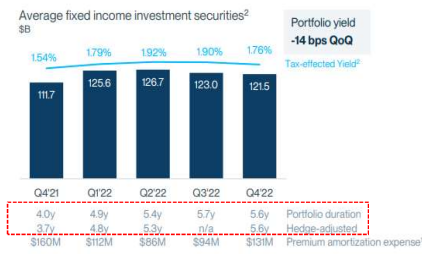
Company Name	Ticker	2022Q4 (%)	2021Y (%)	2020Y (%)	2019Y (%)	2018Y (%)
1 SVB Financial Group	SVB	55.4	59.5	41.2	39.1	40.9
2 Silvergate Capital Corporation	SI	50.5	53.9	16.8	42.2	17.9
3 First Financial Bankshares, Inc.	FFIN	42.2	50.2	40.3	41.3	40.9
4 Farmers & Merchants Bank of Long Beach	FBHL	40.8	39.4	33.1	37.9	38.1
5 Cullen/Frost Bankers, Inc.	CFR	39.4	30.7	29.1	38.9	38.5
6 Popular, Inc.	BPOP	39.2	33.7	33.2	34.5	28.7
7 Prosperity Bancshares, Inc.	PB	38.4	33.9	25.1	26.6	41.5
8 Commerce Bancshares, Inc.	CBSH	38.4	39.4	37.8	32.9	33.5
9 W.T.B. Financial Corporation	WTBF.B	36.1	30.0	26.3	26.5	24.3
10 International Bancshares Corporation	IBOC	35.9	34.4	22.0	28.0	28.8
11 The Bank of New York Mellon Corporation	BK	35.5	35.8	33.5	32.7	33.3
12 CVB Financial Corp.	CVBF	35.3	32.3	20.7	21.4	21.5
13 State Street Corporation	STT	35.3	37.2	34.7	39.3	35.9
14 Bank of Hawaii Corporation	BOH	35.0	39.4	34.2	31.3	32.0
15 Heartland Financial USA, Inc.	HTLF	34.5	39.5	34.7	25.8	23.6
16 Glacier Bancorp, Inc.	GBCI	33.9	40.0	29.9	20.5	23.7
17 UMB Financial Corporation	UMBF	33.4	31.7	31.5	32.2	33.0
18 Northern Trust Corporation	NTRS	33.4	33.1	34.7	37.2	38.7
19 Community Bank System, Inc.	CBU	33.0	31.7	25.5	26.7	27.7
20 Columbia Banking System, Inc.	COLB	32.7	38.5	31.4	26.4	24.2
21 First Bancorp.	FBC	32.4	31.9	25.7	18.0	17.1
22 First Interstate BancSystem, Inc.	FBK	32.2	33.1	23.0	20.8	20.1
23 Eastern Bankshares, Inc.	ERC	31.7	36.2	19.9	13.0	12.8
24 First Hawaiian, Inc.	FHB	30.4	33.8	26.8	20.2	21.7
25 BOK Financial Corporation	BOKF	29.4	26.7	28.6	27.5	24.2

Source: S&P Global Market Intelligence

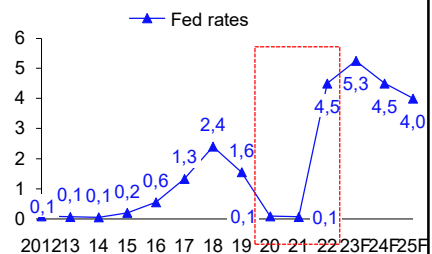
SVB: Investment portfolio



Average remaining duration is 5.6 years Non-hedging



Fed rates



Average remaining duration of US banks

Company	2022Q4		2022Q3		2022Q2		2021Y		2020Y		2019Y							
	1-5Yr	>5Yr	1-5Yr	>5Yr	1-5Yr	>5Yr	1-5Yr	>5Yr	1-5Yr	>5Yr	1-5Yr	>5Yr						
1 SVB Financial Group	0.58%	7.35%	47.50%	0.49%	7.55%	48.33%	0.16%	7.85%	48.89%	0.21%	7.46%	51.64%	0.58%	3.32%	37.54%	3.35%	12.84%	23.89%
2 Prosperity Bancshares, Inc.	0.47%	1.75%	36.18%	0.48%	1.32%	37.32%	0.52%	1.25%	38.09%	0.33%	1.08%	32.47%	0.49%	1.30%	23.27%	0.79%	1.04%	24.79%
3 Cullen/Frost Bankers, Inc.	1.21%	10.30%	27.85%	0.73%	10.72%	25.41%	1.11%	8.94%	26.01%	1.13%	6.83%	22.73%	2.78%	5.29%	21.02%	1.53%	4.46%	32.49%
4 Bank of America Corporation	0.97%	3.12%	23.88%	0.97%	2.52%	24.82%	1.23%	2.53%	25.95%	1.11%	1.78%	27.84%	1.49%	1.40%	20.98%	1.44%	1.67%	15.84%
5 UMB Financial Corporation	1.74%	8.45%	23.22%	1.51%	8.52%	24.48%	1.39%	8.62%	25.85%	0.44%	3.15%	27.93%	0.76%	2.35%	28.02%	1.58%	4.04%	26.43%
6 Commerce Bancshares, Inc.	4.48%	11.26%	22.61%	4.02%	12.00%	22.69%	4.38%	12.23%	24.33%	4.12%	10.58%	24.67%	3.66%	8.64%	25.49%	5.39%	7.74%	19.73%
7 U.S. Bancorp	1.22%	1.18%	21.58%	2.35%	0.98%	22.32%	2.64%	0.99%	23.48%	3.21%	1.57%	25.71%	3.30%	1.96%	19.44%	3.87%	2.46%	18.42%
8 First Interstate BancSystem, Inc.	3.93%	6.93%	21.34%	4.08%	5.62%	23.06%	4.08%	4.58%	23.33%	0.29%	3.99%	29.11%	0.25%	1.42%	21.34%	1.26%	3.02%	16.54%
9 Huntington Bancshares Incorporated	0.40%	1.14%	20.58%	0.99%	1.01%	20.55%	1.03%	0.92%	21.38%	0.95%	0.78%	21.75%	1.33%	0.49%	18.76%	1.64%	0.44%	19.16%
10 BOK Financial Corporation	3.32%	5.40%	20.34%	1.64%	5.46%	21.75%	0.92%	5.19%	22.03%	0.91%	5.81%	19.85%	1.18%	2.39%	24.86%	1.16%	5.06%	21.08%
11 Truist Financial Corporation	1.39%	1.49%	20.24%	1.54%	1.51%	20.97%	1.63%	1.54%	22.40%	1.46%	1.79%	25.31%	0.55%	0.62%	22.54%	0.92%	0.99%	14.28%
12 Hancock Whitney Corporation	0.04%	4.41%	19.44%	0.03%	4.29%	19.77%	0.06%	3.87%	20.69%	0.21%	3.28%	19.91%	0.66%	2.30%	18.90%	0.20%	4.59%	15.61%
13 Old National Bancorp	0.51%	1.14%	19.44%	0.54%	1.13%	19.87%	1.01%	1.14%	21.13%	0.44%	0.93%	28.76%	0.43%	0.94%	24.58%	0.76%	1.51%	23.93%
14 Fifth Third Bancorp	3.04%	2.38%	18.98%	3.14%	1.92%	19.48%	3.52%	1.60%	20.07%	2.91%	1.29%	13.61%	2.98%	5.29%	9.81%	3.35%	0.42%	17.44%
15 Comerica Incorporated	1.35%	3.18%	17.67%	1.42%	3.32%	18.32%	1.38%	3.40%	19.10%	0.26%	5.30%	12.32%	1.94%	8.24%	6.81%	0.29%	10.66%	9.91%

Source: S&P Global Market Intelligence, SVB

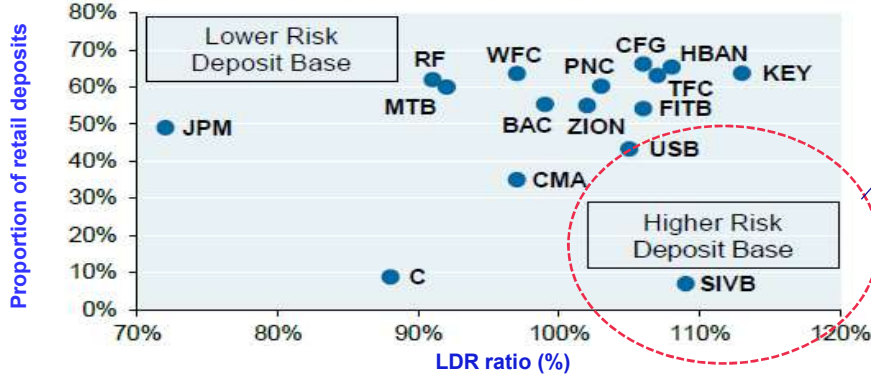
Investment book of \$120 billions and average duration of 5.6 year mean that if interest increases 0.1%, SVB will loss \$700 millions. Interest rate in 2021-2022 cause SVB a accumulative loss of \$14 billions.

SVB's business model had high maturity risk



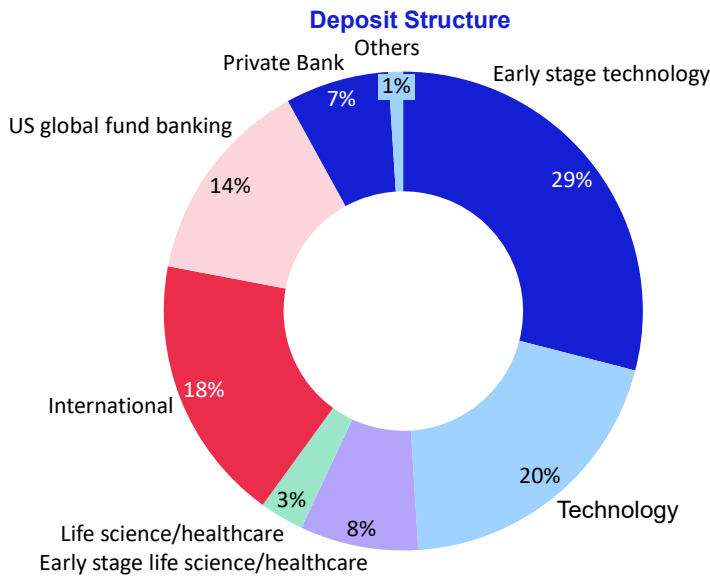
US bank loan-to-deposit ratios

Estimated retail deposit share of total deposits



➤ Mismatch risk was not well managed and hedged: SVB mainly mobilized short-term deposits from institutions (less deposits from individuals) while investing in long-term fixed-income investment assets. Before the collapse, SVB's asset and funding structure had the highest risk level.

SVB: Deposit structure



60-70% of total funding comes from technology companies, early-stage technology sector.

Unrealized losses of AFS and HTM portfolio exceeded Equity as of December 31, 2022



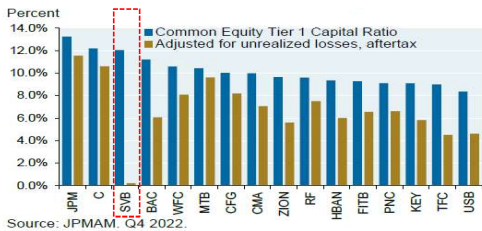
	Amortized Cost	Unrealized Gains	December 31, 2022			
			Unrealized Losses	Fair Value	ACL (2)	Net Carry Value
HTM Portfolio						
(Dollars in millions)						
HTM securities, at cost:						
U.S. agency debentures (1)	\$ 486	\$ —	\$ (52)	\$ 434	\$ —	\$ 486
Residential MBS:						
Agency-issued MBS	57,705	—	(9,349)	48,356	—	57,705
Agency-issued CMO—fixed rate	10,461	—	(1,885)	8,576	—	10,461
Agency-issued CMO—variable rate	79	—	(2)	77	—	79
Agency-issued CMBS	14,471	—	(2,494)	11,977	—	14,471
Municipal bonds and notes	7,417	2	(1,269)	6,150	1	7,416
Corporate bonds	708	—	(109)	599	5	703
Total HTM securities	\$ 91,327	\$ 2	\$ (15,160)	\$ 76,169	\$ 6	\$ 91,321
AFS Portfolio						
(Dollars in millions)						
AFS securities, at fair value:						
U.S. Treasury securities	\$ 17,206	\$ —	\$ —	\$ (1,071)	\$ —	\$ 16,135
U.S. agency debentures	120	—	—	(19)	—	101
Foreign government debt securities	1,209	—	—	(121)	—	1,088
Residential MBS:						
Agency-issued MBS	7,701	—	—	(1,098)	—	6,603
Agency-issued CMO—fixed rate	762	—	—	(84)	—	678
Agency-issued CMBS	1,604	—	—	(140)	—	1,464
Total AFS securities (1)	\$ 28,602	\$ —	\$ —	\$ (2,533)	\$ —	\$ 26,069

Accounting principles used by SVB:

- Financial assets classified as HTM are recognized according to the amortized cost method, the **profit and loss from mark to market** is not recorded in the income statement, loss is recorded only when sold out.
- Financial assets classified as AFS are recognized according to the reasonable cost method, the **profit and loss from mark to market** is not recognized in the income statement (but recorded off-balance sheet in comprehensive income), **loss is recorded only when sold out.**

On the financial statements at the end of 2022, the HTM portfolio had a loss of USD 15.2 billion, AFS portfolio had a loss of USD 2.5 billion, **total loss was USD 17.7 billion.**

Impact of unrealized securities losses on capital ratios



- Equity at the end of 2022: 16.3 tđ USD
- As of December 31, 2022: If calculating the entire unrealized loss of the HTM portfolio (USD -15.2 billion), SVB's CET 1 capital adequacy ratio was close to 0%. If calculating the loss of AFS => CET 1 was negative.
- On March 8, 2023, SVB sold USD 21 billion in AFS portfolio and recorded a loss of USD 1.8 billion. SVB tried to raise capital from shareholders and took assets under the HTM portfolio as collateral for loans but failed and so they were forced to stop operating. And even if SVB succeeded in raising capital (borrowing,...), it would only be a temporary solution to prolong the bankruptcy time, not be able to prevent the loss of interest rate gap (Borrowing interest rate ~4.5% while the return on HTM portfolio is at 1.8%).

8

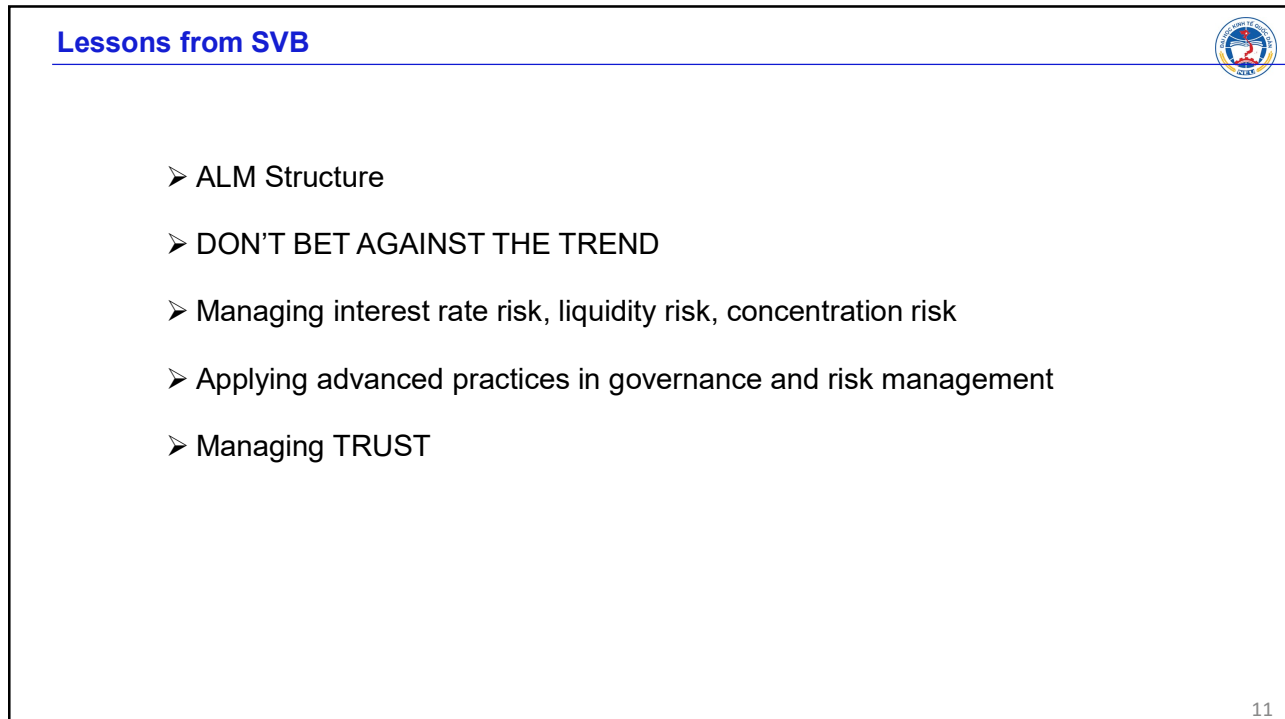
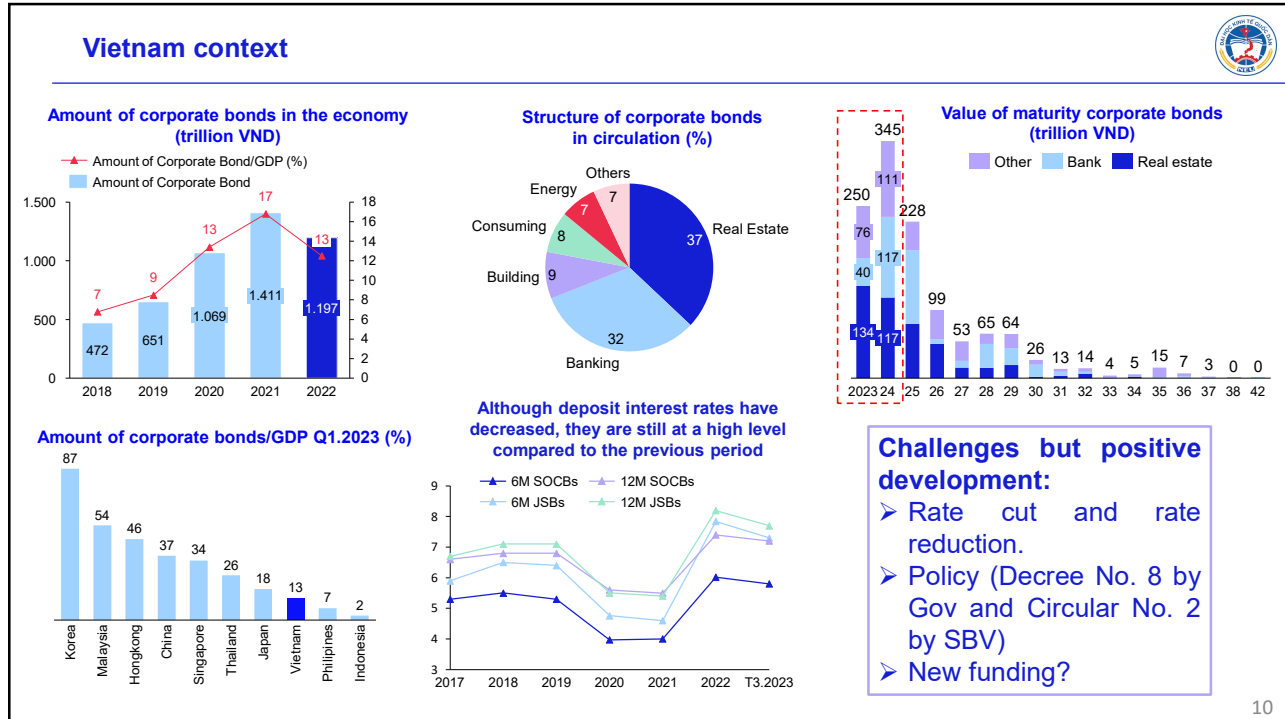
How SVB is different than Lehman Brothers



	Silicon Valley Bank	Lehman Brothers
Scale	According to the financial statement at the end of 2022 - Assets: USD 212 billion (0.92% of the system) - Equity: USD 16 billion (0.75% of the system) - Deposits: USD 196 billion (0.94% of the system)	According to financial statements for the year 2008 - Assets: USD 639 billion (5.8% of the system) - Equity: USD 26 billion (2.3% of the system) - Deposits: USD 613 billion (6.2% of the system)
Ranking	16 th	4 th -largest investment bank
Reasons	<ul style="list-style-type: none"> ▪ ALM structure: SVB bet against the interest rate trend (Over investment in fixed rate assets in rising interest rate trend) ▪ Failing to manage concentration risk, interest rate risk, liquidity risk ▪ Using short-term deposits to invest in long-term assets (CMBS, RMBS, ...) ▪ Customers are concentrated in one industry group (startup, technology companies) 	Investment bank with a high-risk leveraged business model that invested with largely proportion in securities backed by subprime mortgage loans.
Fed's actions	<ul style="list-style-type: none"> ▪ Depositors at SVB with deposit insurance could withdraw money from March 13. ▪ Implementing a liquidity support program for banks with a scale of USD 25 billion USD per bank. 	Fed did not support Lehman Brothers

- **Remark:**
- 2008: Securitization of subprime loans due to banks taking too much risk
 - 2023: Investing in fixed-rate products in a rising interest rate trend and investing in volatile financial assets.
 - **Trend and Trust**

9



Conclusion and Recommendations



- **Central Bank:**
 - ✓ Improve regulations, policies and strengthen the management of interest rate risk and liquidity risk of the whole system:
 - ✓ Supplement additional important indicators to bank supervision and stress testing models such as NSFR (Net Stable Funding Ratio), AOCI (Accumulated Other Comprehensive Income).
 - ✓ Incorporate unrealized gain/loss when calculating the CAR of the whole system and each bank to enhance the capital capacity and risk management of the banking system.
- **Commercial Banks:**
 - ✓ Sharpen market forecasting, strengthening ALM
 - ✓ Actively implement stress testing scenarios.
 - ✓ Mark to the market and incorporate potential loss into CAR calculation to improve governance and proactively taking measures to improve capital capacity.
 - ✓ Applying advanced management practices (Basel III, IFRS, etc)
- **All:**
 - ✓ ALM: country level, sectoral level, corporation level, individual level,
 - ✓ Trust management, reputation management
 - ✓ Following the right trend will make profits, building TRUST will ensure long lasting competitiveness.

12

12



Thank you very much

13

13