Parameteres for financial health of a bank

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Outline

1. Previous presentation
2. Problems
   - Healthy ranges for financial ratios
   - CASA ratio
   - Capital adequacy ratio

Previous presentation

(Financial health of a bank) Can we assess the financial health of a bank using publicly availalbe balancesheets and information?

1. We discussed on what all types of risk are there for banks - Credit Risk, Operational Risk, Market Risk, Liquidity Risk.
2. And then we've seen some of the key financial ratios and their signficance - Net NPA, Net interest margin, Loan-to-Assets ratio, Return-to-assests ratio, CASA ratio, Capital adequacy ratio

Problems

There were some questions raised in the previous presentation:

1. What are the healty ranges for these financial ratios for any bank?
2. Is CASA ratio really a good indicator of financial health of a bank?
3. In Capital adequacy ratio - What are the Tier1 and Tier2 capital? What are the risk weighted assets?

Let's look into all of these using publicly available data.

Financial Ratio Range - Net NPA

Lets observe the Net NPA ratio for some of the banks in India.

Indian Banks with the Highest NPAs

Bank	5 Yr Avg Gross NPA	5 Yr Avg Net NPA	Gross NPAs (2020 - 2021)	Net NPAs (2020 - 2021)
IDBI Bank	26.22	9.23	27.53	1.97
Indian Overseas Bank	19.22	9.83	11.69	3.58
Central Bank of India	18.81	8.49	16.55	5.77
UCO Bank	18.62	8.23	9.59	3.94
Punjab National Bank	14.95	7.42	14.12	5.73
Bank of India	14.84	5.60	13.77	3.35
Bank of Maharashtra	14.57	7.15	7.23	2.48
Union Bank of India	13.95	6.39	13.74	4.62
Punjab & Sind Bank	12.28	6.75	13.76	4.04
Bank of Baroda	10.12	3.95	8.87	3.09

Financial Ratio Range - Net NPA

NPA Ratios of Indian Private Banks

Bank	5 Yr Avg Gross NPA	5 Yr Avg Net NPA	Gross NPAs (2020 - 2021)	Net NPAs (2020 - 2021)
HDFC Bank	1.26	0.38	1.32	0.40
IndusInd Bank	1.86	0.74	2.67	0.69
DCB Bank	2.35	1.12	4.09	2.29
RBL Bank	2.39	1.26	4.34	2.12
AU Small Finance Bank	2.50	1.36	4.30	2.20
Kotak Mahindra Bank	2.50	0.98	3.25	1.21
Equitas Small Finance Bank	2.89	1.58	3.59	1.52
Bandhan Bank	2.90	1.12	6.81	3.51
The Federal Bank	2.90	1.39	3.41	1.19
IDFC First Bank	3.09	1.39	4.15	1.86

Net NPA is lower the better, and ideally with Net NPA less than 2% is considered healthy.

Return to assets

1. The return-on-assets (ROA) ratio is frequently applied to banks because the cash flow analysis is more difficult to accurately construct. The ratio is considered an important profitability ratio, indicating the per-rupee profit a company earns on its assets.
2. Since bank assets largely consist of money the bank loans, the per-rupee return is an important metric of bank management. The ROA ratio is a company's net, after-tax income divided by its total assets.
3. An important point to note is since banks are highly leveraged, even a relatively low ROA of 1 to 2% may represent substantial revenues and profit for a bank.

CASA ratio

TOP 10 PRIVATE SECTOR BANKS WITH HIGH CASA RATIO

	NAME OF THE COMPANY	MARKET CAP (₹ cr)	TOTAL DEPOSITS (₹ cr)*	CASA RATIO (%)*
1	KOTAK MAHINDRA BANK	3,60,618	2,61,564	57.1
2	J&K BANK	1,697	1,00,469	53.3
3	IDBI BANK	40,692	2,23,915	48.3
4	HDFC BANK	7,58,287	12,29,310	41.6
5	IDFC FIRST BANK	20,960	69,368	40.4
6	INDUSIND BANK	67,822	2,27,884	40.3
7	ICICI BANK	3,32,530	8,32,936	40.3
8	AXIS BANK	1,84,454	6,355	40.0
9	BANDHAN BANK	60,606	66,128	38.2
10	FEDERAL BANK	13,092	1,56,747	33.7

CASA ratio

1. CASA Ratio = CASA Deposits ÷ Total Deposits
2. The CASA is a non-term deposit, meaning it is used for the everyday banking and savings needs of the consumer. This type of account does not have a specific maturity or expiration date, so it is valid for as long as the account holder needs it to remain open.
3. Financial institutions encourage the use of a CASA because it generates a higher profit margin. Because the interest paid on the CASA deposit is lower than on a term deposit, the bank's net interest income is higher. Thus, CASAs can be a cheaper source of funding for banks.
4. **However, because of the uncertainty relating to when a depositor will withdraw funds, CASA funds should not be utilized by a bank for long-term financing.**

Capital adequacy ratio

1. Capital adequacy ratio (CAR) is a measure of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures.
2. $\text{CAR} = \frac{\text{Tier 1 Capital} + \text{Tier 2 Capital}}{\text{risk-weighted asset}}$

Tier1 and Tier2 assests

1. Tier I Capital: consists mainly of share capital and etained earnings—disclosed on their financial statements. Since this capital is fully available to cover the core losses, it is also called Core Capital. For this reason this is considered as the highest quality capital. hese funds are generated specifically to support banks when losses are absorbed so that regular business functions do not have to be shut down.
2. Tier II Capital (supplementary capital): Includes undisclosed funds that do not appear on a bank's financial statements, revaluation reserves, hybrid capital instruments, subordinated term debt. It is more difficult to accurately measure due to its composition of assets that are difficult to liquidate.

Risk weighted assets

1. Regulators ask each bank must group its assets together by risk category so that the amount of required capital is matched with the risk level of each asset type. Basel III uses credit ratings of certain assets to establish their risk coefficients.
2. The degree of risk involved is expressed in percentage and it is assigned by the Reserve Bank of India. The Risk weights of a few important assets as assigned by the RBI are listed in the table below:

Item of Asset	Weighted Risk Percent
Cash	0%
Balance with Reserve Bank of India	0%
Central or state Government Guaranteed advances	0%
SSI advances up to CGF guarantee	0%
Loans against Fixed Deposits,and LIC Policy	0%
Government approved Securities	2.5%
Balance with Bank (excluding RBI) which maintains the 9% CRAR	20%
Secured Loan to the Staff Members	20%
Housing Loans less than **Rs.** 30 Lakh	50%
Housing Loans more than **Rs.** 30 Lakhs	75%
Loans against Gold and Jewellery less than <**Rs.**1 Lakh	50%
Retail Lending up to **Rs.** 5 crore	75%
Loans Guaranteed by DGCGC / ECGC	50%
Loans to Public Sector Undertakings	100%
Foreign Exchange and Gold in open	100%
Claims on unrated corporates	100%
Commercial Real estate	100%
Consumer Credit	125%
Credit Cards	125%
Exposure to Capital Markets	125%
Venture Capital Investment	150%

Figure 1: Risk weighted assets