

Du Pont Analysis

Du Pont Corporation – 1920

Profitability
ROE (Return on Equity) = Net Profit/Shareholders' Equity

15% - 18%

ROE ↑ or ↓

Why ?

Du Pont Analysis

*Capital - 100%
60% 40%
100%
55% 45%
Ratio = $\frac{NI \uparrow}{Equity \downarrow}$*

ROE

Increase Profits

Utilize Resources

Reduce Equity

financial structure =

Profitability

**Assets Turnover/
Efficiency ?**

Leverage ? ?

Net Profit

Net Sales

Total Assets

Net Sales

Total Assets

Sh. Equity

ROA

A Comparative Analysis

| Company | Market Cap | 10 Year Return |
|--------------------|---|---|
| Godrej Consumer | Rs. 797 bn  | 1958%  |
| Dabur India | Rs. 769 bn  | 854%  |
| Hindustan Unilever | Rs. 3449 bn  | 539% |
| BSE Sensex | – | 190% |



Amount of investments public given to a company through the price of its shares. Stock price* No of outstanding shares

| Consolidated (Rs. Cr) | Dabur FY 2018 | Godrej Consumer FY2018 |
|-----------------------|------------------|---------------------------|
| Total Sales | 8054 ✓ | 10045 |
| Net Profits | 5733 . | 6258 |
| Net Assets | 6424 . | 9852 |
| Total Equity | 1358 - | 1671 |

| | Dabur FY 2018 | Godrej Consumer FY2018 |
|----------------------|------------------|---------------------------|
| Net Profit Margin | 16.9% ✓ | 16.6% ✓ |
| Asset Turnover Ratio | 1.25 ✓ | 1.02 ✓ |
| Financial Leverage | 1.12 ✓ | 1.57 ✓ ↓ |
| Return on Equity | 23.6% ✓ | 26.6% ✓ ↑ |



Bankruptcy Analysis

Dr. Monika Dhochak

ALTMAN Z-SCORE

- The Altman Z-score is a combination of five financial ratios weighted by coefficients that is used to estimate the likelihood of financial distress.
- It was developed in 1968 by Edward I. Altman, an Assistant Professor of Finance at New York University, as a quantitative balance-sheet method of determining a company's financial health.
- The coefficients were estimated by identifying a set of firms which had declared bankruptcy and then collecting a matched sample of firms which had survived, with matching by industry and approximate size (assets).



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- **$X_1 = \text{Working Capital (Current Assets less Liabilities)} / \text{Total Assets}$.**
Measures liquid assets in relation to the size of the company.
 - **$X_2 = \text{Retained Earnings} / \text{Total Assets}$.**
Measures profitability that reflects the company's age and earning power.
 - **$X_3 = \text{Earnings Before Interest and Taxes} / \text{Total Assets}$.**
Measures operating efficiency apart from tax and leveraging factors. It recognizes operating earnings as being important to long-term viability.

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- X_4 = Market Value of Equity / Book Value of Total Liabilities.

Adds market dimension that can show up security price fluctuation as a possible red flag.

- X_5 = Sales / Total Assets.

Standard measure for total asset turnover (varies greatly from industry to industry).

- The five variables are then weighted together according to the following formula:

$$\text{Altman Z-Score} = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5.$$

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- A Z-Score above **2.99** suggests that a company is in the **Safe Zone** based on the financial figures only.
 - A Z-Score between 1.8 and 2.99 is in the **Grey Zone** which suggests there is a good chance of the company going bankrupt within the next two years of operations.
 - Meanwhile, a Z-Score below 1.80 is in the **Distress Zone** which indicates a high probability of distress within this time period.

Food for thought...

Colgate-Palmolive (India) Limited Financial Ratios

| | FY2023 (12m) | FY2022 (12m) |
|------------------------------------|-----------------|-----------------|
| Short Term Solvency | | |
| Net Working Capital (Rs in Crores) | -177.00 | -172.00 |
| Current Ratio | 0.80 | 0.80 |
| Quick Ratio | 0.51 | 0.53 |
| Gross Profit Margin (%) | 59.69 | 57.50 |
| Operating Profit Margin (%) | 18.76 | 18.94 |
| Net Profit Margin (%) | 14.04 | 15.09 |
| Return on Equity (%) | 81.61 | 90.00 |
| Total Asset Turnover | 2.49 | 4.79 |
| Operating Asset Turnover | 3.69 | 18.50 |
| Working Capital Turnover | -22.82 | -41.62 |
| Earnings per Share | 4.08 | 3.94 |
| Price-to-Earnings | 12.74 | 13.19 |

- Has the profit of the company improved? OR Has the efficiency of use of assets gone up?
- Would you like to be a supplier for this company? What are its pluses and minuses?
- Imagine yourself as **CEO of a large bank** - at what rate of interest would you like to give CPIL long-term loans?
- As a **government regulator** – how can you try and extract more from CPIL (or make it earn less to shareholders and more to society and customers)?
- Would the company's asset structure be able to absorb economic shocks?
- If you were a **financial services company** – what type of opportunities would you shortlist for making CPIL as your customer – please back your answer with proper financial statement analysis.
- Please comment on the **bankruptcy risk** of CPIL.
- What are the **limitations of the financial analysis** done by you on CPIL?



Examining the Financial Statements of Banks

Dr. Monika Dhochak

Banks – SBI and HDFC Banks

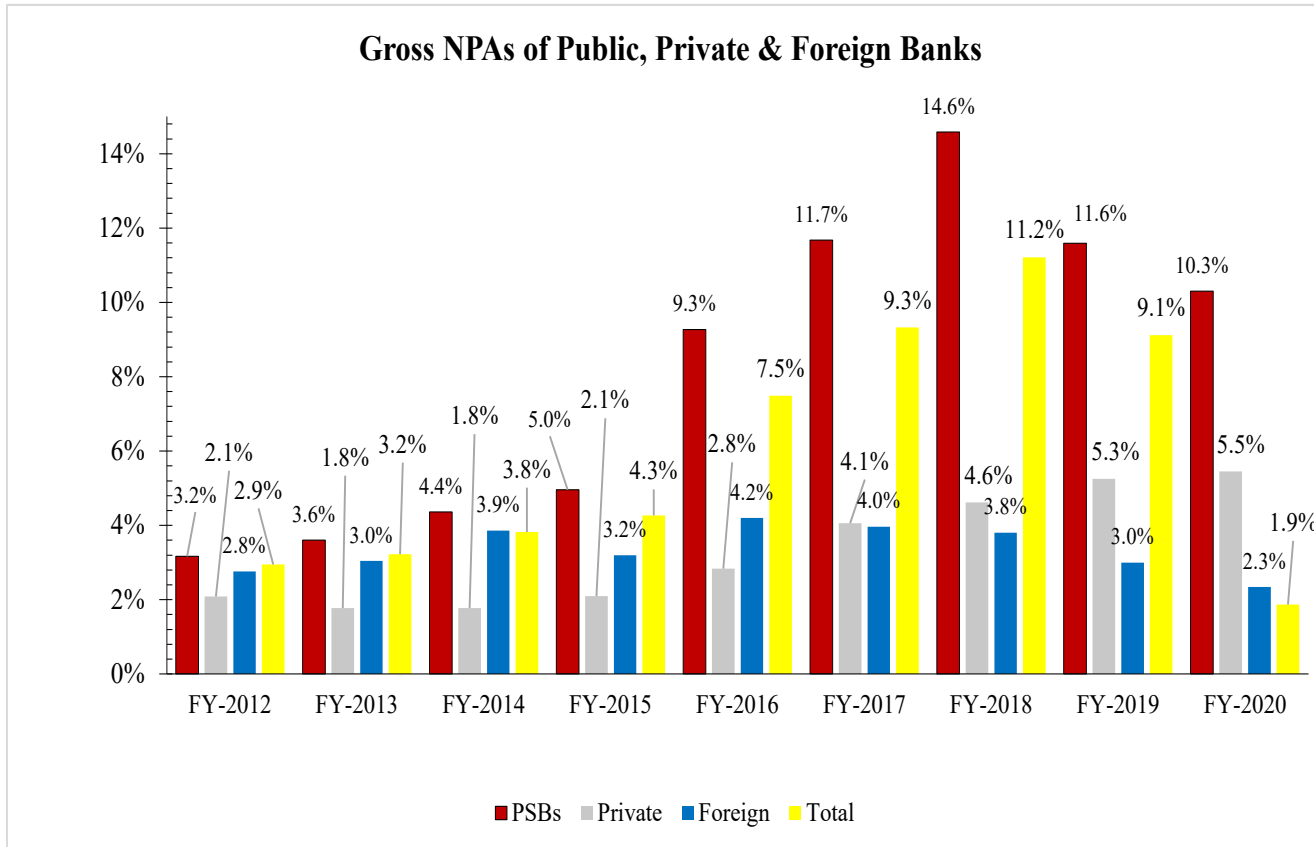
Let's see the MS Excel file for analysis

General Observations

- Some of the most complex businesses to understand from the outside
- Accounting statements give an overview of the banks performance but the clarity of the picture they present depends on the accounting decisions that management takes.
 - Analysts will **lack vital information** about the bank's economics
 - Extent of credit losses
 - Mismatch of assets and liabilities
- Banks are **highly levered**

Introductory remarks

- NPA levels, recovery, and what to accept while resolving insolvency



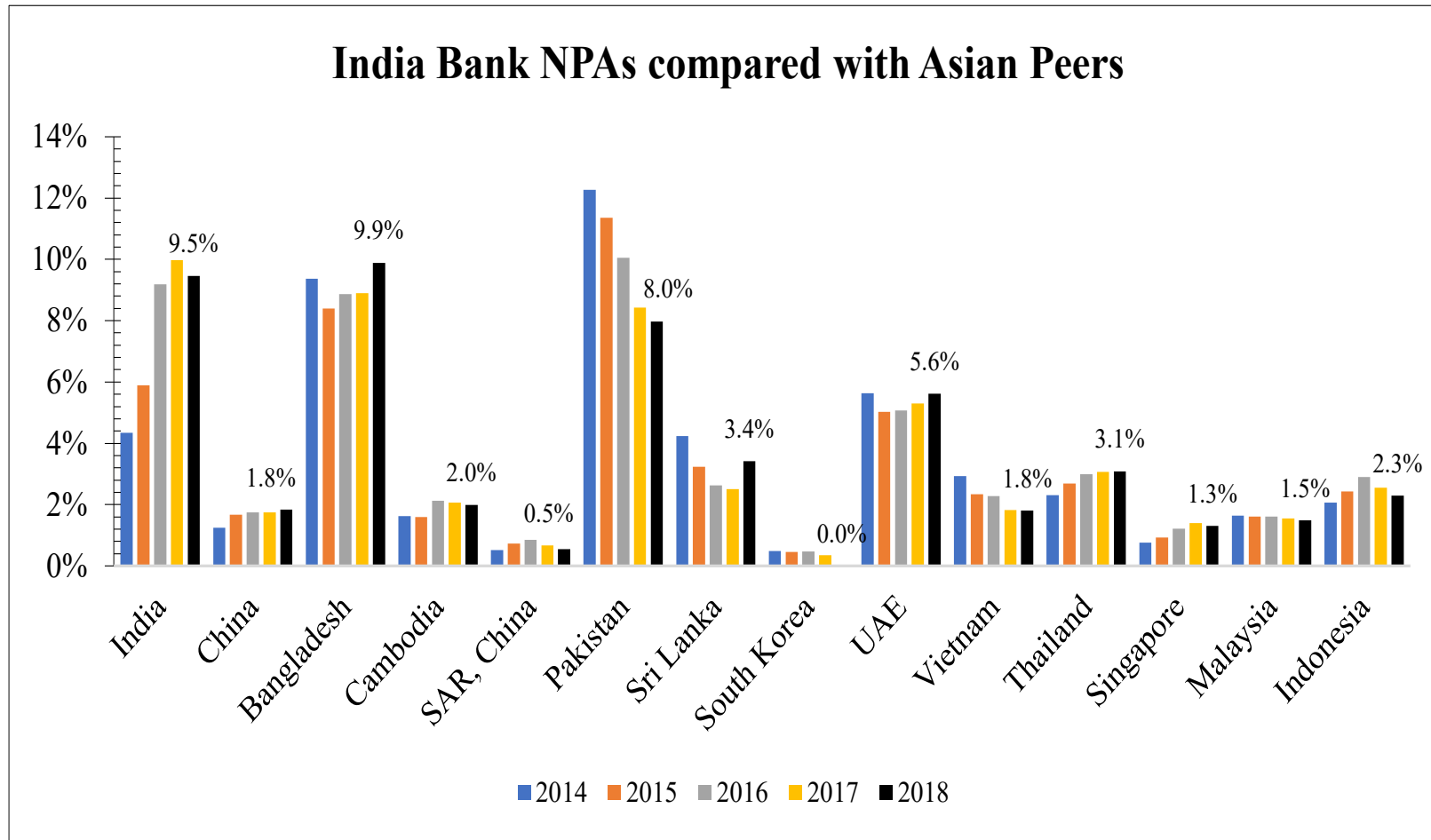
Points for discussion

- Are the NPA levels acceptable or too high?
- Does the ownership pattern of the banks impact NPAs?
- Why are we looking at these figures?
- For (b) above, let's see peer comparison

Can IBC help the banks chart a new way forward?

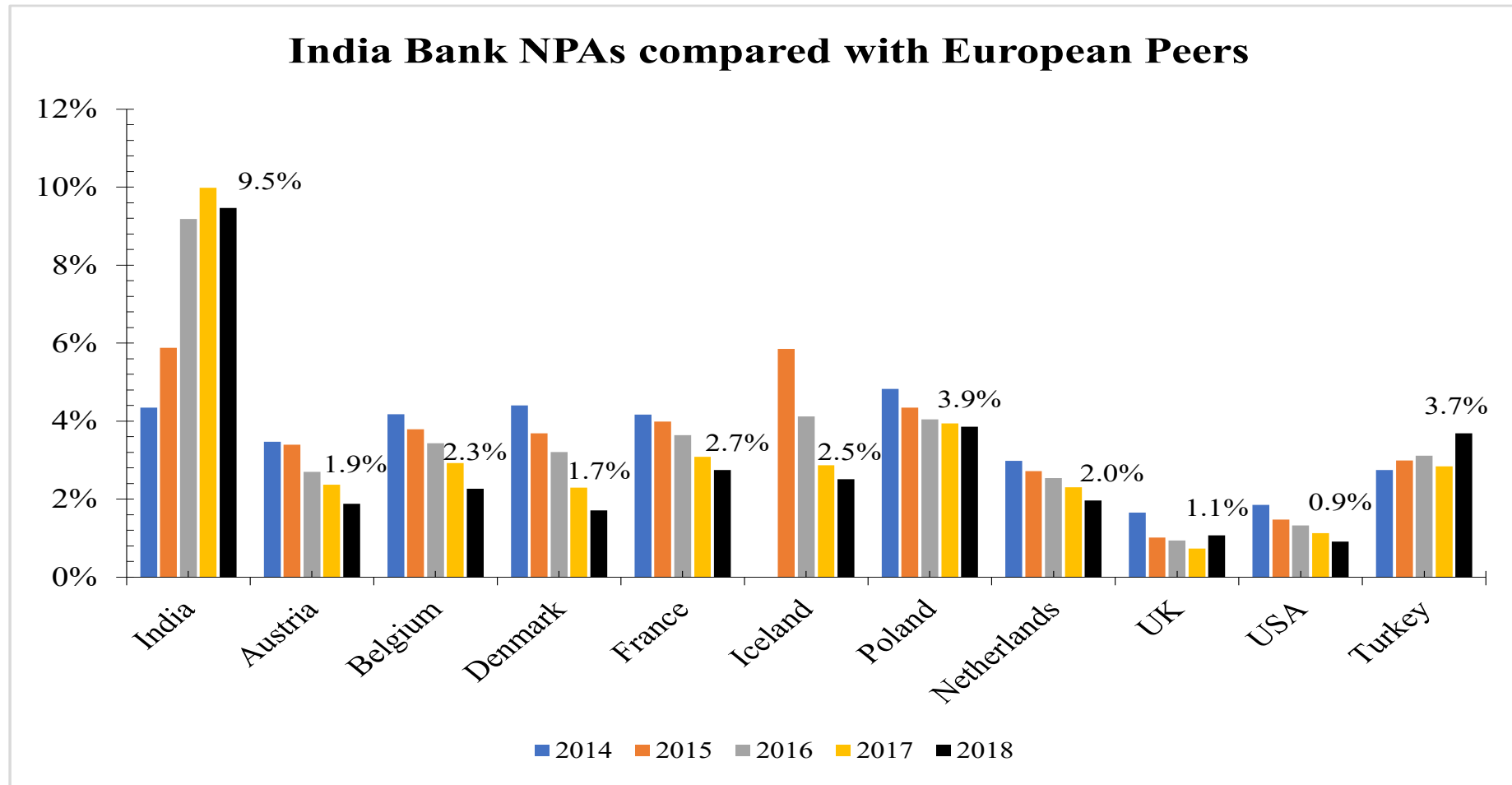
Introductory remarks

Indian banks' NPAs compared with those of Asian peers



Introductory remarks

Indian banks' NPAs compared with those of European / US peers



Balance Sheet of a Bank



How do Balance Sheet look for a Bank?

How to analyze each line item using schedule to Balance Sheet?

Assets – HDFC Bank

Advances

Schedule 9

- Loans to customers are classified as assets. This is because the bank expects to receive interest and principal repayments for loans in the future
- Term Loan** - loan for a specific amount that has a specified repayment schedule and a fixed or floating interest rate
- Secured by Tangible Assets** – These are the loans secured by collateral like house, car, stocks and so on.
- Unsecured Loan** – It includes personal loans, business loans etc. that are not secured by any collateral.
- Advances in India**
 - ✓ Loan to the priority sectors like agriculture, small business
 - ✓ Larger % of loan is classified as other and would have preferred to see the details

| | | As at 31-Mar-21 |
|---|---|-----------------------|
| SCHEDULE 9 - ADVANCES | | |
| A | (i) Bills purchased and discounted | 345,427,765 |
| | (ii) Cash credits, overdrafts and loans repayable on demand | 2,559,778,239 |
| | (iii) Term loans | 8,423,160,305 |
| | Total | 11,328,366,309 |
| B | (i) Secured by tangible assets* | 7,618,839,623 |
| | (ii) Covered by bank / government guarantees | 393,758,390 |
| | (iii) Unsecured | 3,315,768,296 |
| | Total | 11,328,366,309 |
| * Including advances against book debts | | |
| C | I Advances in India | |
| | (i) Priority sector | 2,574,675,399 |
| | (ii) Public sector | 1,199,082,740 |
| | (iii) Banks | 85,383,854 |
| | (iv) Others | 7,153,125,825 |
| | Total | 11,012,267,818 |

↑
Loan Growth

↓
NPA

Capital & Liabilities – HDFC Bank

₹ in '000

| | Schedule | As at 31-Mar-21 | As at 31-Mar-20 |
|----------------------------------|----------|-----------------------|-----------------------|
| CAPITAL AND LIABILITIES | | | |
| Capital | 1 | 5,512,776 | 5,483,286 |
| Reserves and surplus | 2 | 2,031,695,513 | 1,704,377,008 |
| Deposits | 3 | 13,350,602,208 | 11,475,022,947 |
| Borrowings | 4 | 1,354,873,236 | 1,446,285,372 |
| Other liabilities and provisions | 5 | 726,021,504 | 673,943,976 |
| Total | | 17,468,705,237 | 15,305,112,589 |

Liabilities - Deposits

Deposits

Schedule 3

▪ Demand Deposits

- ✓ Money can be withdrawn without prior notice.
- ✓ This is like Current account and banks pays very minimum or no interest
- ✓ Current account is opened for business use

▪ Savings Bank Deposits

- ✓ It allows individual to deposit money, withdrawal and earn small amount of interest as well.

▪ Term Deposit

- ✓ This is a fixed deposit where money is invested for fixed period and interest rate
- ✓ It allows withdrawal before the maturity
- ✓ The interest will be reduced by penalty amount.

₹ in '000

| | As at 31-Mar-21 | As at 31-Mar-20 |
|---------------------------------|-----------------------|-----------------------|
| SCHEDULE 3 - DEPOSITS | | |
| A I Demand deposits | | |
| (i) From banks | 38,701,928 | 36,285,672 |
| (ii) From others | 2,083,119,132 | 1,706,193,073 |
| Total | 2,121,821,060 | 1,742,478,745 |
| II Savings bank deposits | 4,035,000,577 | 3,103,771,353 |
| III Term deposits | | |
| (i) From banks | 106,458,399 | 136,163,876 |
| (ii) From others | 7,087,322,172 | 6,492,608,973 |
| Total | 7,193,780,571 | 6,628,772,849 |
| Total | 13,350,602,208 | 11,475,022,947 |

- Deposit under **Current** and **Savings account** is called as **CASA deposit**
- CASA deposit is the cheapest source of money available for bank since they pay very minimum rate of interest to account holder
- Growing CASA deposit is always a good sign for bank

Income Statement - HDFC

| | Schedule | Year ended 31-Mar-21 | Year ended 31-Mar-20 |
|---|----------|-------------------------|-------------------------|
| I INCOME | | | |
| Interest earned ← | 13 | 1,208,582,265 | 1,148,126,509 |
| Other income ← | 14 | 252,048,927 | 232,608,187 |
| Total | | 1,460,631,192 | 1,380,734,696 |
| II EXPENDITURE | | | |
| Interest expended ← | 15 | 559,786,560 | 586,263,979 |
| Operating expenses | 16 | 327,226,301 | 306,975,289 |
| Provisions and contingencies [Refer Schedule 18 (24)] | | 262,453,079 | 224,922,278 |
| Total | | 1,149,465,940 | 1,118,161,546 |
| III PROFIT | | | |
| Net profit for the year | | 311,165,252 | 262,573,150 |
| Balance in the Profit and Loss account brought forward | | 574,924,020 | 492,233,022 |
| Total | | 886,089,272 | 754,806,172 |
| IV APPROPRIATIONS | | | |
| Transfer to Statutory Reserve | | 77,791,313 | 65,643,288 |
| Dividend (including tax / cess thereon) pertaining to previous year paid during the year, net of dividend tax credits | | - | 48,933,585 |
| Interim Dividend (including tax) | | - | 16,469,504 |
| Transfer to General Reserve | | 31,116,525 | 26,257,315 |
| Transfer to Capital Reserve | | 22,916,842 | 11,238,460 |
| Transfer to / (from) Investment Reserve Account | | 616,645 | - |
| Transfer to / (from) Investment Fluctuation Reserve | | 17,120,000 | 11,340,000 |
| Balance carried over to Balance Sheet | | 736,527,947 | 574,924,020 |
| Total | | 886,089,272 | 754,806,172 |
| V EARNINGS PER EQUITY SHARE (Face value ₹ 1 per share) | | | |
| Basic | | ₹ 56.58 | ₹ 48.01 |
| Diluted | | ₹ 56.32 | ₹ 47.66 |

For the purpose of financial analysis, the major ratios for banks are as follows:

- **Profitability analysis:** Net Interest Margin, CASA, ROA, ROE
- **Efficiency Analysis:** Non-Interest Cost to total revenue, Credit deposit ratio
- **Credit Risk Analysis:** Interest Income as % of total income, NPL (Non-performing loans) ratio

Why some banks perform better than others?

- High NIM
- Lower non-interest cost to total revenue
- More productive business segments
- Low NPA resulting from effective credit appraisal, monitoring and risk management
- Interest income constitutes 81% to 87% of the total income. So credit risk management is major risk management task.
- Let's also browse through facets of risk management by banks

Thank You!