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## A STUDY ON THE EVALUATION OF FINANCIAL PERFORMANCE OF POST AND PRE-MERGER OF INDIAN OVERSEAS BANK USING EAGLE MODEL

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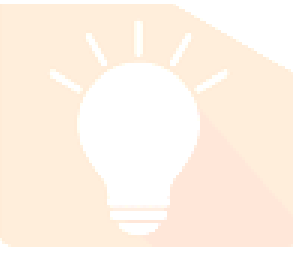
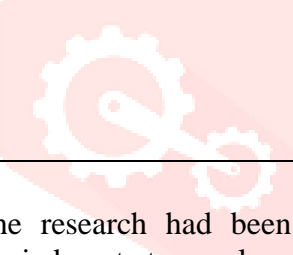
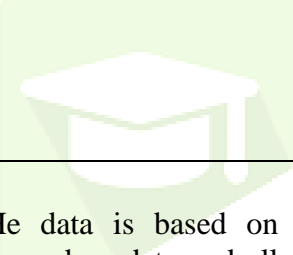

### INTRODUCTION

Banking mergers have been for decades an iconic aspect of the economy, reshaping both the domestic and international banking situation. These mergers have complex dynamics and significant effects on banks, their customers, their shareholders, and regulatory bodies. The reasons for bank mergers may vary from the pursuit of enhanced efficiency to the strategic growth into new markets. Thus, it becomes essential to thoroughly research these mergers to comprehend their causes, effects, and difficulties.

The merger of Indian Overseas Bank presented an intriguing opportunity to delve into the transformative effects of such strategic decisions on the financial health and performance of a banking entity. This study endeavors to provide a comprehensive assessment of Indian Overseas Bank financial performance, both prior to and following the merger event, utilizing the well-established EAGLE (Earnings, Asset quality, Growth, Liquidity, and Efficiency) and CAMEL (Capital Adequacy, Asset Quality, Management Quality, Earnings Quality, and Liquidity) models.

## REVIEW OF LITERATURE

SR. No	YEAR OF RESEARCH	TITLE AND AUTHOR OF THE PAPER	REGION OF RESEARCH	SAMPLE AND POPULATION DESCRIPTION	TOOLS FOR ANALYSIS	RESEARCH FINDINGS
1	2021	Financial Performance Analysis of Private Sector Banks in India: An EAGLE Model Approach  Mr. Jay A. Sathavara and, Dr. Sejalben R. Christian	The research had been carried out to rank the private sector banks on the bases of EAGLE model and also analyze, evaluate and compare the financial performance of selected private sector bank with different parameters like earning, assets, growth, liquidity and equity	The study is based on five private sector banks namely Axis bank, HDFC bank, ICICI bank, Indusind bank and kotak mahindra bank and selected on the basis of market capitalisation. This research period cover total ten years starting from 2009-10 to 2018-19 for selected private sector bank. Secondary data has been used for this research study and retrieved from annual reports of the banks. Ratio analysis has been used as accounting tools and one way anova test has been used as statistical tool.	Tested all financial parameters of EAGLE model at 95% confidence level. These all selected private sector banks were ranked on the basis of parameters and sub parameters of EAGLE model.	The study indicated that the financial variable of banks like earning, assets, growth, liquidity and equity are able to describe the important part of profitability of private sector banks. HDFC bank secured first rank in earning, assets, liquidity and equity parameters with outstanding performance and secured third rank in growth parameter because of low growth rate of deposits and advances. Kotak Mahindra bank also secured first rank in earning, growth and equity parameters with superior performance and secured third and fourth rank in assets and liquidity parameters respectively. ICICI bank secured last position in earning, assets and growth parameters with below average performance. ICICI banks should pay attention on this parameters to improve their profitability. There is a strong competition in liquidity and earning parameters among all selected private sector banks. All the selected private sector banks has been maintained the capital adequacy ratio as per RBI norms. The tabulated values of all the variables are less than significant value 0.05. So null hypothesis of variables of this study was rejected, that means there are statistically significant difference in all the selected samples. The research study conclude that the large private sector bank selected on the bases of market capitalization of India that are Axis bank, HDFC bank, ICICI bank, Indusind bank and Kotak Mahindra bank had a acceptable performance according to EAGLE parameters.
2	2019	Evaluating the Financial Soundness of Kuwaiti Banking SubSectors Using EAGLES Financial Model: A Comparison Study between Islamic and Conventional Banks  Musaed S. AlAli	The research had been carried out to compare the financial soundness of Islamic and conventional banking sub-sectors in Kuwait over the period 2011-2018	Aggregate data for the sub-sectors used in this study were obtained from the Kuwait institute of banking studies database.	EAGLES financial model is a model that is based on financial ratios that outperforms the models that are based on common financial variables	The study indicated that on an average, conventional bank outperformed Islamic banks in all areas except in growth. But, in the last three years of the study period Islamic banks overcome conventional banks in the areas of earnings and strategic management responsiveness. In terms of trend analysis results, they revealed that Islamic banks are improving more rapidly than conventional banks in all areas except in liquidity. The results from this study suggested that Islamic banks are improving much more than conventional bank but they have to address their weak area and that is liquidity. Conventional banks on the other hand are facing problems in growth at the present time but trend analysis suggests that this problem will spread to other areas such as earnings and strategic management responsiveness

3	2023	Evaluating Nepalese Commercial Banks' Performance from the Eyes of EAGLES Rating  Rashesh Vaidya	The research aimed to evaluate the performance of the Nepalese commercial banks using the EAGLE rating model developed by Vong (1994) based on the bank's earning ability ratio, assets quality ratio, growth rate, liquidity, and equity to which an acronym as EAGLE. Vong and Song (2015) added the 'S' element afterward under EAGLE, renaming EAGLES.	The paper considered the financial information of all the commercial banks operating in Nepal from 2018-19 to 2020-21	EAGLE rating model developed by Vong (1994) based on the bank's earning ability ratio, assets quality ratio, growth rate, liquidity, and equity to which an acronym as EAGLE. Vong and Song (2015) added the 'S' element afterward under EAGLE, renaming	The study indicated that the banks with a short history in the Nepalese banking industry with aggressive market expansion were at the top of the position under the EAGLES rating. The paper also indicated that ranking for return on equity (E) and ranking for non-performing loan ratio (A) and ranking for return on equity (E), and ranking for capital adequacy ratio (E) have a significant relationship while determining the ranking of the commercial banks. Similarly, the bank with a better position for all the components of EAGLES was at the top for the government-owned commercial banks, while for joint venture banks, the bank with better loan growth, liquidity position, and capital structure was at the top.
4	2017	Evaluating the Financial Performance of Select Indian Banks Using Eagles Model  Santhoshi Kumari & Prasad Satya Venkat	The research had been carried out to Evaluate the Financial Performance of Select Indian Banks Using Eagles Model    	Secondary data was proposed and the data was collected from the website. The study used 10 years' data of selected 10 public and private sector banks.	Eagles model is capable of measuring and comparing banks' performance in a more determinate, objective and consistent manner. 	The result of the study indicates that Yes Bank is in top position in terms of Return on Assets (ROA), gross NPA, and Provision Coverage Ratio (PCR). This indicated that Yes Bank has more earning capacity as compared to the remaining selected banks. Kotak Mahindra Bank is also performing efficiently in terms of investment-to-deposit and Capital Adequacy Ratio (CAR), which indicated that private sector banks are performing well as compared to public sector banks. Among public sector banks, State Bank of India is performing efficiently in loans and deposits component. The study proved that there is a significant difference in the performance of selected public and private sector banks.
5	2020	Recent tie up of sbi with its associates: a probe of pre and post-merger attainment through the lens of camels framework  Rajashree Upadhyay and Dr. Mahesh Kumar Kurmi	The research had been carried out to analyze pre and post-merger attainment of State Bank of India through the lens of CAMELS Framework is the precise objective of this study.	The data is based on secondary data and all the required facts & figures are congregated from 'CAPITALINE- 2000 Database'. Three years pre tie up phase (i.e., from 2014-15 to 2016-17) & three years post tie up phase (i.e., from 2017-18 to 2019-20) of State Bank India are explored in this study.	To derive the efficacy of this consolidation during pre and post tie up period, CAMELS approach is used here. CAMELS approach is basically one kind of ratio analysis typically used by the banks for assessment of the overall attainment of the banks with indicating their strengths & sickness by taking into account the six different dimension of performance assessment i.e. Capital Adequacy, Assets Quality, Management Potency, Earning Quality, Liquidity and Sensitivity.	The result of the study indicates that State Bank of India has failed to enjoy the benefits of merger as it take over its own associate banks which are already have high non-performing assets. Ratios related to capital adequacy do not point any remarkable improvements in post-merger phase rather the increasing trend of Debt Equity Ratio has increased the degree of financial leverage and reduced the protection for the depositors and creditors. Similarly, bank has failed to improve its assets quality because non-performing assets has increased after tie up that may create challenge to bank. Overall earnings capacity and liquidity of the bank has also deteriorated after merger. After the merger the net profit has been declined and owing to negative earning after merger, bank has not paid any dividend to their shareholders. Though, the bigger size of newly merged SBI will get the benefit of large scale operation and will share high proportion of market share but at present as a whole, it can be opined that merger has not made any significant difference in financial performance of SBI, at least in short run.

## OBJECTIVE OF THE STUDY

- To evaluate the Indian Overseas Bank's performance through the pre-and post-merger periods using the EAGLE Model
- To analyse the financial performance of Indian Overseas Bank's after the merger event.
- To identify any significant changes or trends in the post-merger financial performance compared to the pre- merger period.

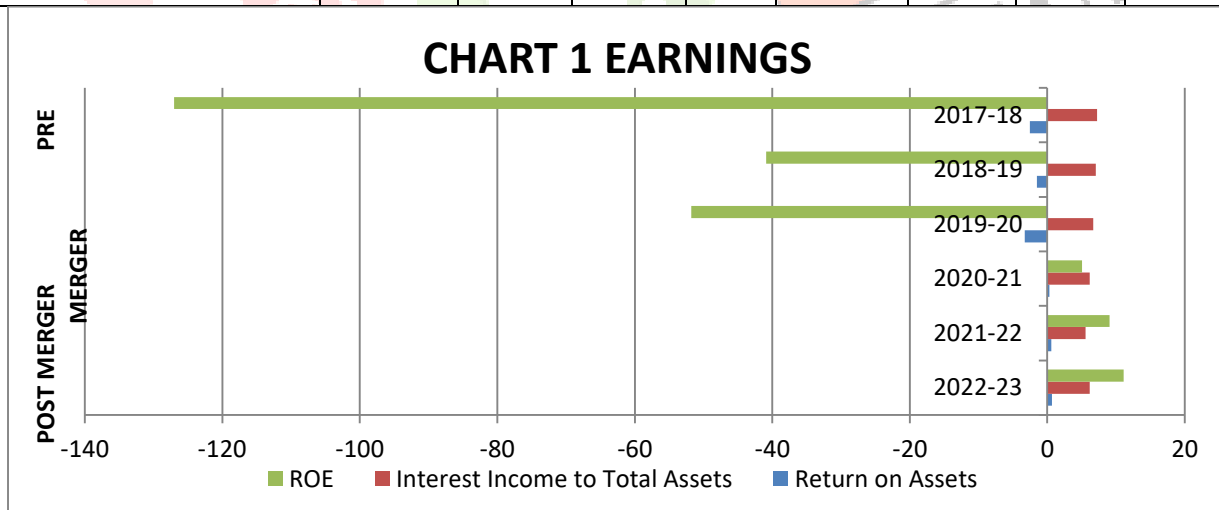
## RESEARCH METHODOLOGY

### Data Sources

The major source of information for the objectives of this study is secondary data. The data was collected from the Indian Overseas Bank's annual reports from 2017–18 to 2022–23. Many national and international journals, periodicals, working papers, publications, etc. on the pre-and post-financial performance of the Indian banking sector have also been referenced in the research. The present study considers a period of 3 years from 2017 to 2020 for the pre-merger and a period of 3 years from 2021 to 2023 for the post-merger while Indian Overseas Bank merged on April 1, 2020.

## DATA ANALYSIS AND INTERPRETATION

Particulars	Post-Merger				Pre-Merger			
	2022-23	2021-22	2020-21	Avg	2019-20	2018-19	2017-18	Avg
Return on Assets	0.66	0.57	0.30	0.51	-3.27	-1.49	-2.54	-2.43
Interest Income to Total Assets	6.18	5.58	6.19	5.98	6.67	7.05	7.22	6.98
ROE	11.10	9.04	5.05	8.39	-51.8	-40.88	-127	-73.22

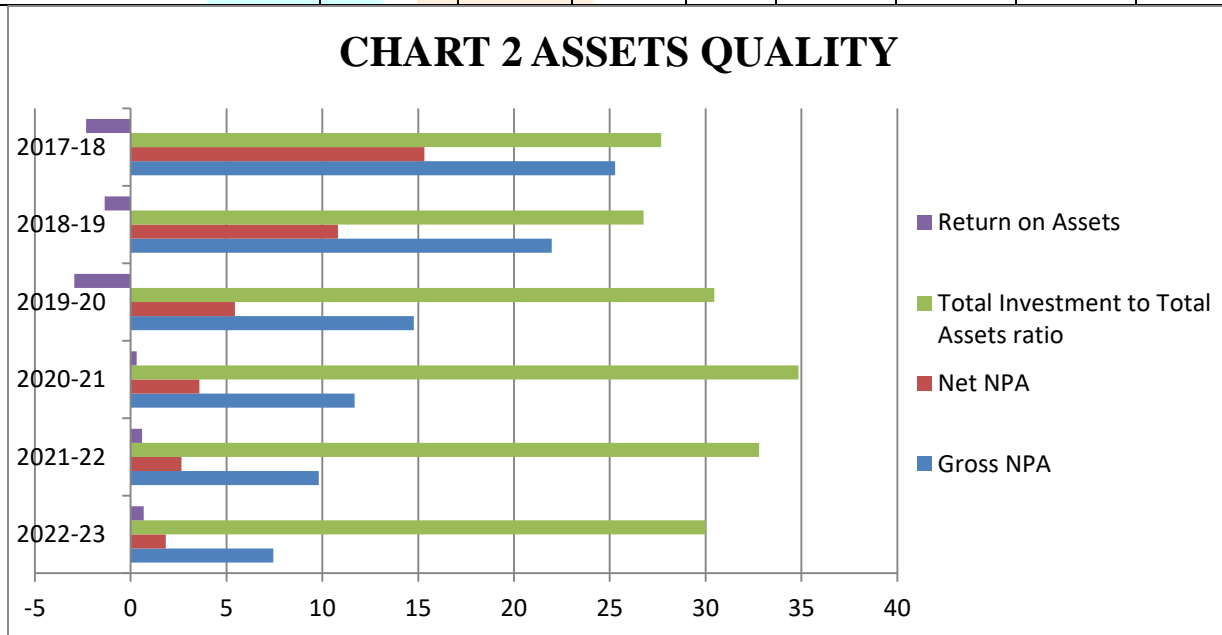


The Bank's Earnings Ratios for the Pre-Merger (2017-2020) and post-merger (2021-2023) Periods are shown in Table 1. Earnings quality assessment of the bank's profitability and the sustainability of its earning over the long run. The graphical deviations in earnings quality for the pre-and post-merger periods are shown in Chart 1. The Return on Assets, Interest Income to Total Assets, and Dividend ROE are the three indicators used in Earnings Quality Measures. After the merger, Indian overseas bank's return on assets was from -3.27% in 2019–20 to 0.30% in 2020–21, indicating a high rise in the bank's earnings. After the merger, interest income as a proportion of total assets declined from 6.67% in 2019–20 to 6.19%

in 2020–21 while increasing to 6.18% in 2022–23. The average difference from pre–merger to post–merger was a drop of 0.40%. The ROE ratio increased. It was -51.8 % in 2019-20 and 11.10% in 2022–2023. The "PRE-MERGER" period showed periods of high profitability and unusual positive ROE despite negative values in some cases. The "POST MERGER" period, after 2019, demonstrated a notable increase in profitability compared to shareholder equity.

## ASSETS QUALITY

Particulars	Post-Merger				Pre-Merger			
	2022-23	2021-22	2020-21	Avg	2019-20	2018-19	2017-18	Avg
Gross NPA	7.44	9.82	11.69	9.65	14.78	21.97	25.28	20.67
Net NPA	1.83	2.65	3.58	2.68	5.44	10.81	15.33	10.52
Total Investment to Total Assets ratio	30.01	32.79	34.85	32.55	30.45	26.77	27.68	28.3
Return on Assets	0.68	0.59	0.31	0.52	-2.95	-1.35	-2.33	-2.21

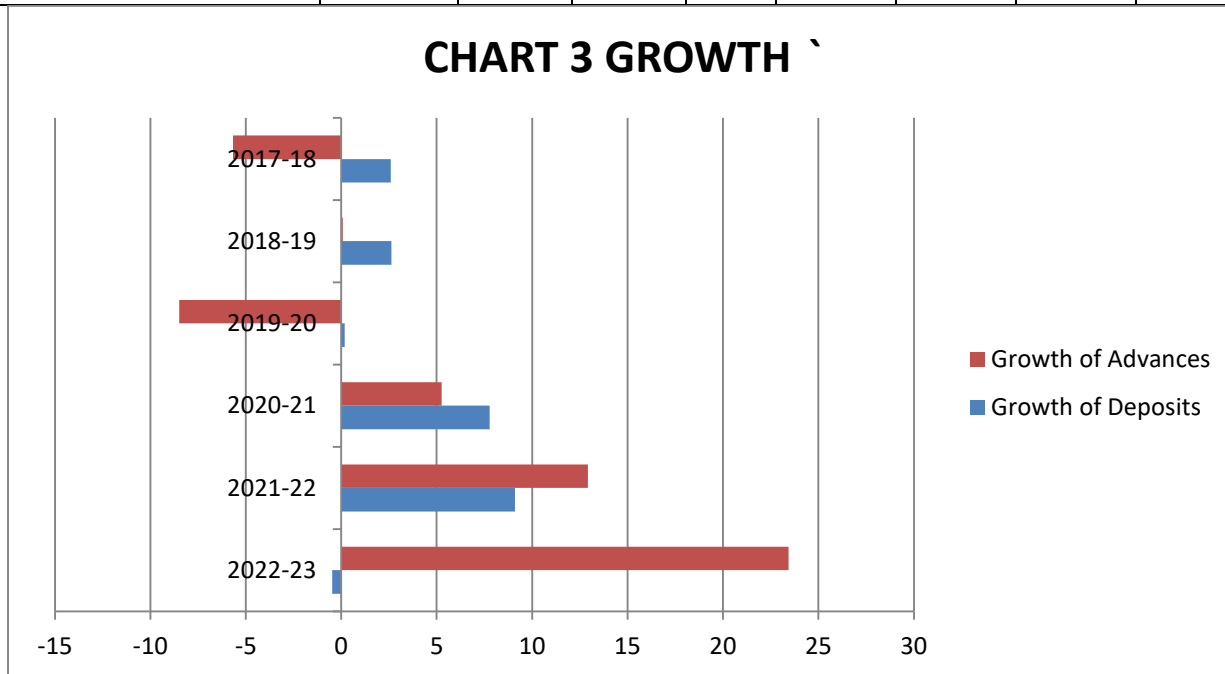


In Table 2, the Assets Quality of the Bank is summarized for the Pre-Merger (2017-2020) and post-merger (2021-2023) Periods. Asset quality is a review of an asset's ability to withstand credit risk. Chart 2 illustrates the graphical variations in asset quality for the pre-and post-merger periods of Indian Overseas Bank. The four indicators utilized in Asset Quality Measures are Gross NPA, Net NPA, Total Investment to Total Assets Ratio and Return on Assets. Assets with beneficial asset quality provide both a high yield and a low default risk. Indicating strong asset health after the merger, Indian Overseas Bank’s Gross NPA declined gradually from 14.78% in 2019–20 to 11.69% in 2020–21 to 7.44% in 2022– 23. After the merger, Indian Overseas Bank’s Net NPA declined from 5.44% in 2019–20 to 3.58% in 2020–21, and it proceeded to fall till it reached 1.83% in 2022–23, illustrating the merger had a beneficial impact on asset health. The ratio of total investments to total assets increased from 30.45% in 2019–20 to 34.85% in 2020–2021, and it decreased to 30.01% in 2022–2023. Return on Assets has improved as the ratio was -2.95% in 2019-20 which increased to 0.68% in 2022-23.



## GROWTH

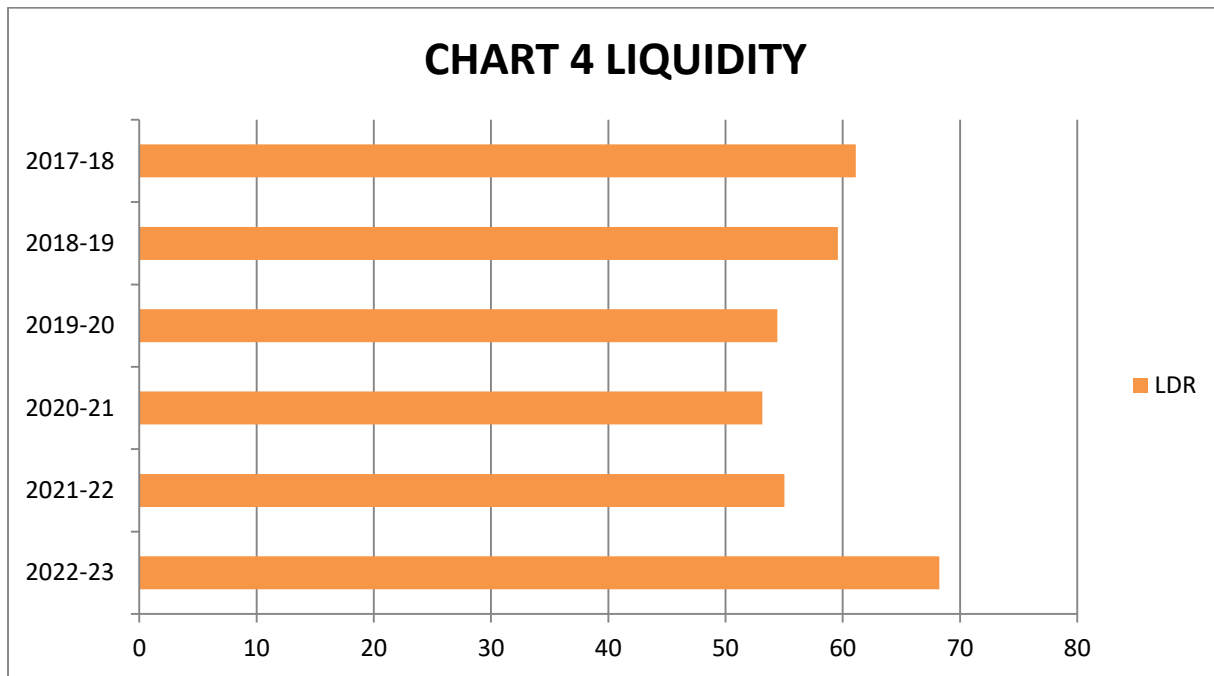
Particulars	Post-Merger				Pre-Merger			
	2022-23	2021-22	2020-21	Avg	2019-20	2018-19	2017-18	Avg
Growth of Deposits	-0.48	9.10	7.77	4.02	0.18	2.62	2.59	1.79
Growth of Advances	23.43	12.93	5.26	13.87	-8.49	0.08	-5.67	-4.69



In Table 3, the Growth of the Bank is summarized for the Pre-merger (2017-2020) and post-merger (2021-2023) Periods. Chart 3 illustrates the graphical variations in the Growth of banks for the pre-and post-merger periods. The two indicators utilized in the growth Measures are Growth of Deposits, Growth of Advance. After the merger, the growth of deposits at Indian Overseas Bank's went from 0.18 times in 2019–20 to 7.77 times in 2020–21 to -0.48 times 2022–23. The growth of advances at Indian Overseas Bank's went from -8.49 times in 2019–20 to 5.26 times in 2020–21 and then back to 23.43 times in 2022–23.

## LIQUIDITY

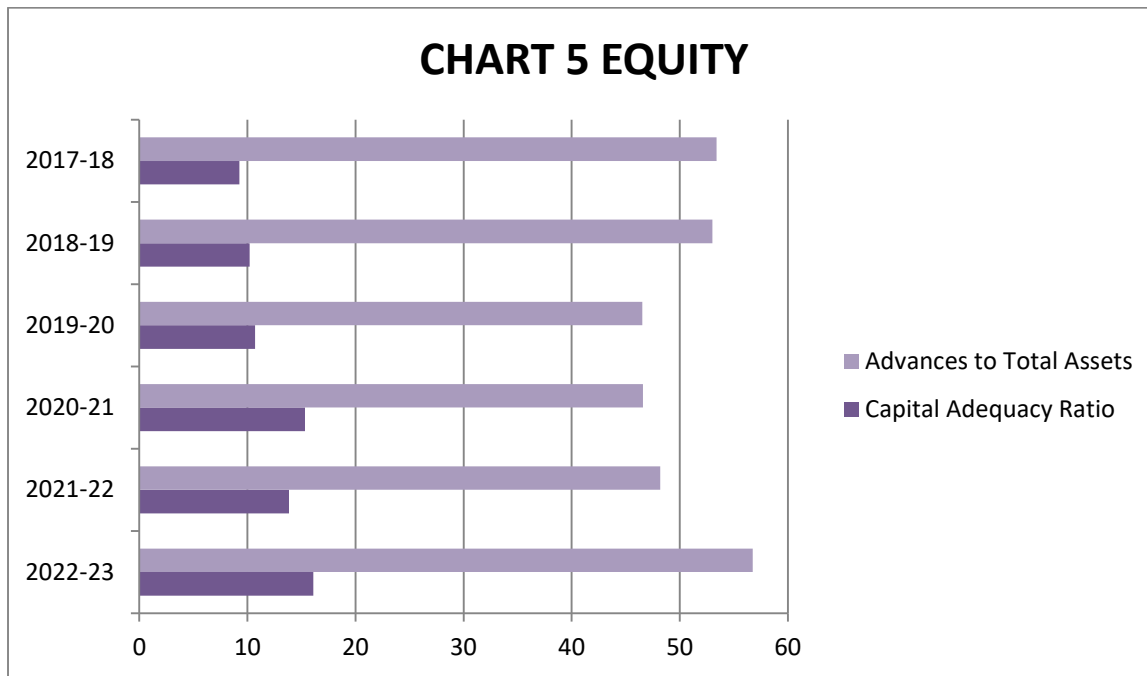
Particulars	Post-Merger				Pre-Merger			
	2022-23	2021-22	2020-21	Avg	2019-20	2018-19	2017-18	Avg
Total Loans/ Total deposits LDR	68.24	55.02	53.15	58.80	54.42	59.58	61.10	58.36



In Table 4 Liquidity of the Bank is summarized for the Pre-merger (2017-2020) and post-merger (2021-2023) Periods. Balancing between liquidity and profitability is a difficult task for any bank, utilizing the liquidity the bank has on loans would boost the banks’ profitability but at the same time would make the bank vulnerable against any liquidity crunch. Having lower loans to deposit ratio would indicate a conservative bank policy at the expense of profitability, Indian Overseas Bank Liquidity rate show that bank is more conservative in their loan expansion at the expense of liquidity. Indian Overseas Bank had a mean loan to deposit ratio.

#### EQUITY

Particulars	Post-Merger				Pre-Merger			
	2022-23	2021-22	2020-21	Avg	2019-20	2018-19	2017-18	Avg
Capital Adequacy Ratio	16.10	13.83	15.32	15.08	10.72	10.21	9.25	10.06
Advances to Total Assets	56.75	48.18	46.61	50.51	46.53	53.03	53.42	-4.69

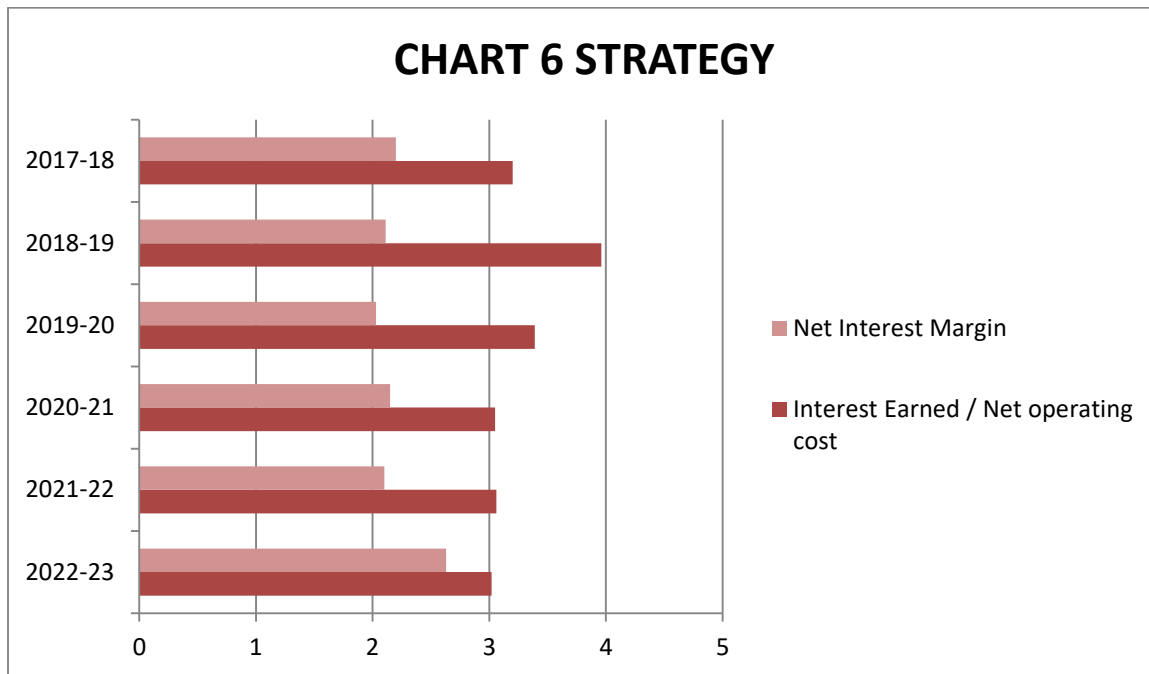


In Table 5, the Equity ratio of the Bank is summarized for the Pre-Merger (2017-2020) and post-merger (2021-2023) Periods. Chart 5 illustrates the graphical variations in the Equity ratio of banks for the pre-and post-merger periods. The Two indicators utilized in the Liquidity Measures are the Capital Adequacy Ratio and the Advances to Total Assets ratio. Capital adequacy has profound impact upon the bank. Not only is there an international guideline (Basel II) that stipulates a bank must have a minimum capital equivalent to 8% of risk adjusted asset. Many banks are restricted to open additional branches unless they meet minimum capital requirements. Capital to risk-weighted assets ratio (CAR) is advocated to ensure that the bank can bear a reasonable amount of losses occurring during the operations and to determine the bank’s loss bearing capacity. Again in terms of capital adequacy, Indian Overseas Bank showed a higher ratio indicating that they are capable of absorbing any financial fall down in the bank. After the merger, the Capital Adequacy Ratio of Indian Overseas Bank’s went from 10.72% in 2019–20 to 15.32% in 2020–21 to 16.10% in 2022–23. After the merger, Indian Overseas Bank Advances to Total Assets Ratio increased from 46.53% in 2019–20 to 46.61% in 2020–21 to 56.75% in 2022–23.

STRATEGY

Particulars	Post-Merger				Pre-Merger			
	2022-23	2021-22	2020-21	Avg	2019-20	2018-19	2017-18	Avg
Interest Earned / Net operating cost	3.02	3.06	3.05	3.04	3.39	3.96	3.20	3.51
Net Interest Margin	2.63	2.10	2.15	2.29	2.03	2.11	2.20	2.11





In Table 6, the Strategy ratio of the Bank is summarized for the Pre-Merger (2017-2020) and post-merger (2021-2023) Periods. Chart 6 illustrates the graphical variations in the Strategy ratio of banks for the pre- and post-merger period. The effective management of a bank strategy is indicated by the strategic response quotient (SRQ). It is an intriguing ratio because it assesses management's ability to lend, to garner deposits, obtain fee-based income and to manage the operating cost. As to what is an appropriate balance of the three core banking activities will depend on the bank's strategy. The higher figure the better combined with excellent risk controls.

## CONCLUSION

- Post - merger Indian Overseas Bank earning capability strengthened due to its high return on assets, but not enhance interest income, therefore the bank must enhance its ability to generate more money.
- Due to falling total assets and non-performing assets, Indian Overseas Bank has observed a fall in asset quality. Indian Overseas Bank must raise asset quality and work on reducing back on non-performing assets.
- Post - merger, the bank's growth in advances changed slightly while deposits improved steadily. For the bank to prosper, deposit advantages must be utilized properly.
- Also, it was determined that the merger had a positive effect on the bank's liquidity. Indian Overseas Bank has adequate cash on hand to satisfy its payments and commitments, permitting it to make payroll, pay suppliers, and do trade as usual.

Furthermore, the bank has adequate capital, which reduces the risk of bank failure and ensures the effectiveness and stability of a country's financial system.

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