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PROFITABILITY OF COMMERCIAL BANKS IN RECENT YEARS

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ABSTRACT

As the share of non-interest income in bank revenue has increased over the course of time, banks have explored this new avenue to garner more profit. Better revenue due to business diversification has opened new doors for banks to become more viable and profitable. It is important to understand the concepts of profit and profitability. Further, it needs to be investigated what are the determinants of profitability for the banking business. The pre-Covid and Covid years have been decisive for the bank's profitability. The lending and borrowing dimensions have changed during this period. It has severely altered the Returns on Assets and Returns on Equity of banks. Between the various bank groups, including foreign banks, private sector banks, and public sector banks, the foreign sector banks seem to be dominant players in earning more non-interest income thereby uplifting their profitability. This paper tries to inquire about the changes in bank Groupwise profitability over the course of the past decade.

Key Words: Non-interest Income, bank Profitability
JEL Code: G18, G21

1. Introduction

Earning and sustaining profit is essential for any business entity. It applies to commercial banks as well. Indian commercial banks, especially after economic reforms, are hunting strong for high levels of profit. They have been busy adopting a number of measures either to minimize costs or maximize revenues or both. In the more open and competitive climate, each bank is trying to diversify its business and explore other than traditional business opportunities so that revenue earning becomes more prominent. Against this backdrop, it is important to understand and examine actual responses on the part of Indian commercial banks for earning higher profits.

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Having this motivation in mind, in this chapter we begin with an in-depth understanding of the concept of profit as well as profitability both in ordinary parlance and in an economic sense. Then we take into account profitability for a banking unit and attempts by various scholars in the past to understand bank profitability. We apply various performance indicators such as the Returns on Assets (ROA), Returns on Equity (ROE) and changes in them over the study period. Similarly, we further examine the net interest margin to total assets, operating profit margin to total assets, and burden[1] to total assets for different bank groups in order to understand movements in the profitability of banks in India. The burden reflects the extent to which non-interest expenses are recovered through non-interest income and is computed as non-interest income less non-interest expense scaled by total assets. A higher ratio indicates a lower appropriation of non-interest income to meet non-interest expenses and therefore lower burden. Apart from this, we found that many times even the Returns on Advances (RoA) and Returns on Investment (RoI) are also considered important indicators of a business's profitability bank.

There can be bank-specific as well as country-specific determinants of profitability in the banking business. We have listed a few internal and external determinants of bank profitability. This chapter also takes note of the extensive literature available on the bank profitability issue both with reference to India and for banks outside India. We have developed a profit function for four different bank groups, viz., the SBI and Associates, the Nationalised Banks, the Private Sector Banks, and the Foreign Banks. We have focussed on the Credit-Deposit Ratio (CDR), the non-interest income to total income ratio, the ROA, the ROE, the ratio of net interest margin to total assets, the ratio of burden to total assets as important determinants of bank profitability in India. In the end, the hypothesis is tested by using multiple regression analysis for which SPSS 12.0 is put in use. Further, the recent trends in the banking industry are examined for better clarity on bank profitability.

2 Conceptual Framework of Profit

The term profit has three meanings:

1. In economics, profit refers to a reward to the entrepreneur for risk-taking and management.
2. In business operations, it means the gains from manufacturing, merchandising, and selling operations after all expenses are met. It may

[1] Burden = Non-interest Income-Non-interest Expenses / Total Assets

be measured by the increase in the net worth of the business over the previous year.

3. In speculative transactions, it refers to the excess of the net selling price over the cost of security or commodity traded.

Profit is a motivating factor behind many managerial activities. It plays three important roles in a capitalist society, viz., it is a financial reward for a) taking risk b) having monopoly power, and c) having efficient management. Thus, profit provides strong incentives to owners and managers to act efficiently.

2.1 Profit and Profitability

Profit is a reliable guide to the operational performance of a firm or a business and it indicates whether it is worthwhile doing business in any one period or not. It ensures the survival, prosperity, and growth of an organization. The word 'Profit' originates from the Latin 'profectus' meaning "to make progress." In common parlance, we get the following meanings of the term profit:

- It is simply the difference between income and expenses in a single or series of transactions, particularly when it comes to the selling price of items above their cost.
- Profit is the surplus of revenue after the deduction of all the expenses incurred on earning it. It is the reward for entrepreneurship.
- "Profit is the residual value arrived at after deducting all money costs (from total sales revenue)".

In the accounting sense, the term net profit is the sales of the firm minus costs like wages, rent, fuel, raw materials, interest on loans and depreciation. Accounting profit is the difference between total revenue received from the sale of products with reference to a period of time along with the money value of the inventories added during the period, if any, at the current market price and the total costs of production. Accounting profits provide us with a brief assessment of the likelihood of a business. Although losses for one or two years may not harm the firm permanently but, if incurred for a longer period, it may jeopardize its viability.

Thus, economic profits provide us with a long-term perspective on a business. Furthermore, profit can be gross or net. Gross profit is the difference between sales and the costs of the goods sold. Net Contrarily, profit is the distinction between gross profit and depreciation. Profit is very often considered from social and commercial points of view. The two concepts of profit may not go together as it may be the case that the social profit is high but the commercial profit is low or vice versa.

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Profit and profitability are not synonymous terms. Profit is an absolute term (volume), whereas profitability is a relative term (ratio). Profitability differs from profit because profitability does not reveal how much profit is earned; rather it indicates how efficiently earning is derived. Profitability is the ability of a given investment to earn returns from its use. It is the variant of profit and an operational concept signifying economic efficiency. It refers to the profit-earning capacity of a product, process or of a firm, as the case may be. This indicates the efficiency or otherwise with which a firm is managed.

Without profit growth, expansion and even survival of a business entity become difficult. So, profit and profitability are, therefore, the nerve centre of any business enterprise. The same is true for the banking business.

2.2 Profitability of a Bank

The measurement of a business's profitability bank is a difficult exercise with particular reference to the social approach to banking in India. A business's profitability bank is related mainly to lending activities that are cyclic in nature and dependent on the needs and strengths of borrowers. In modern times, though banks have The majority of a commercial bank's income still comes from lending activities, despite the focus being more on transaction fees, particularly loan fees, service charges, and other ancillary services. As a result, a bank makes money primarily from the dif the level of interest it pays for mobilising deposits and other sources of its funds, and the level of interest it charges on its lending activities, i.e. the interest spread. Several studies consider the cost-income ratio (Cost income ratio = Non-interest expenses/ [Total income - Interest expenses]) as a parameter to study a business's profitability bank.

The profit of a bank can be stated as The variation between the present and operating income and the current operating expenditure. Interest earned, commissions on bills, loans, advances, balances with the RBI and foreign exchange business represent the current operating income. Current operating expenditure, on the other hand, includes interest paid on deposits mobilised and borrowings, salaries and allowances paid to the staff, other establishment expenses, taxes, etc.

The effectiveness levels, productivity, effectiveness, etc. of a bank are, therefore, reflected in the bank's profitability. It can therefore be considered as a composite index of a bank's performance in its various areas of operations. A bank's profitability is measured by relating profit to working funds, total assets, income, the volume of business, deposits, etc. The ratios such as profit to working fund, profit to total assets, profit to income, profit to the volume of business, profit to deposits, etc. are commonly used to measure bank profitability.

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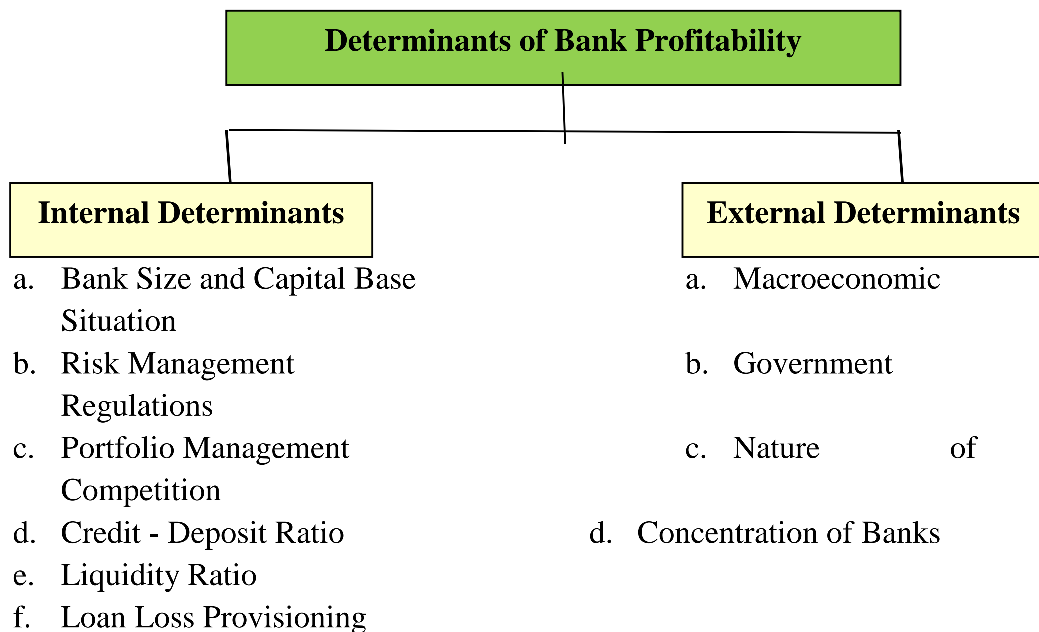
2.3 Determinants of Bank Profitability

There are various factors that determine the profit-earning capacity of a bank. Conventionally economists recognise two broad sets of factors, viz., internal factors and external factors. The internal determinants originate from the financial statements, i.e., the balance sheets and profit and loss accounts of the bank. These are often termed micro or bank-specific determinants of profitability. Systemic dynamics that reflect the macroeconomic environment and influence how financial institutions operate and perform make up the external determinants.. A number of explanatory variables have also been suggested in the literature as proxies for both the internal and external determinants. The determinants of profitability could be better understood from the following Chart 6.1.

Chart:1 Determinants of Bank Profitability



The typical internal determinants engaged in the literature are the size of the bank and its capital base, risk and portfolio management, the credit-deposit ratio, capital and liquidity ratios, loan loss expenses ratio, recovery rate, etc. Given the nature of the banking business, risk management is of crucial importance for the financial health of a bank. During times of uncertainty and economic slowdown, banks prefer a more diversified portfolio to avoid adversities and raise their liquid holdings in order to reduce risk. Thus, both

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credit risks and liquidity risks assume crucial importance in determining the profitability of banks. However, the literature provides evidence of a negative and significant relationship between the level of liquidity and profitability.

Miller and Noulas (1997) found a negative impact of credit risk on profitability. This finding can be explained by taking into account the fact that the accumulation of unpaid loans increases as financial institutions' exposure to high-risk loans increases, suggesting that these loan losses have resulted in poorer returns for many inve commercial banks.

Expense management, a correlate of efficient management, is another very important internal determinant of a bank's profitability. An expenses-related variable is to be included in the cost part of a standard microeconomic profit function. In this context, Bourke (1989) had empirically shown that better expense management and profitability go hand in hand.

As far as the external determinants of bank profitability are concerned, the variables that describe the macro-economic environment, such as inflation, interest rates, growth rates of money supply and variables that represent market characteristics are given importance. The other important external determinants, empirically modeled by different economists consist of government regulations, competition, market share, growth the marketplace, and government ownership.

The correlation between bank profitability and inflation was first described by Revell in 1979. Whether salaries and other operating costs at banks rise more quickly than inflation has an impact on bank profitability. In a similar vein, Perry (1992) arguelar line contends that the extent to which inflation affects bank profitability depends on whether inflation expectations are fully anticipated.

The influence arising from the ownership status of a bank on its profitability is another much-debated and frequently visited issue in the literature. The proposition that privately-owned banking institutions are more profitable, however, has mixed empirical evidence in favour of it. Short (1979) provides cross-country evidence of a strong negative relationship between government ownership and bank profitability. Barth *et al.* (2004) claim that government ownership of banks is indeed negatively correlated with banks' efficiency. In addition, some scholars have also observed that ownership status is irrelevant in explaining profitability.

However, it is to be made clear that there are wide differences among scholars in adopting parameters to evaluate the profitability of service industries such as banking. Notable studies in the field have emphasized diverse aspects while analysing the profitability of commercial banks. Angadi and Devraj

(1983), opine that social responsibility has greater importance than mere commercial profit earnings for banks.

2.4 Profitability Measurement in the Past

Analysing profitability is a challenging task. A bank being a firm in the service industry has a different *modus operandi*. Therefore, there is no consensus among scholars regarding inputs consumed and outputs rendered by a bank. We find vast literature on the measurement of bank profitability. Many investigators have attempted diverse ways to measure bank profitability. We have cited a few of them hereunder.

Varde and Singh (1987) in their study on 'Branch Banking and Profitability' used the following seven determinants of profitability for banks:

i) r = rate of interest-earning on total advances.
  = (R/A) x100, where,
  R = Total interest earned by the bank on advances, and
  A = Total annual advances.

ii) k = average rate of interest paid by the bank on deposits.
  = (K/D) x100, where,
  K = Interest paid by the bank on deposits, and,
  D = Total annual deposits mobilised by the bank.

iii) m = Rate of manpower expenses per employee pertaining to the volume of business (%)
  = M/V x 100, where,
  M = Total manpower expenses of the bank during the year, and,
  V = Sum of annual deposits (D) and annual advances (A), i.e., V=D+A

iv) o = Rate of operational expenses pertaining to the volume of business (%).
  = O/V x 100, where,
  O = Total operating expenses of the bank during the year, and
  V= Volume of the bank business

v) c = Rate of Non-interest income pertaining to the volume of business (%)
  = (C/V) x100, where,
  C = Total non-interest income by way of commissions, etc. earned by the bank during the year and
  V = Sum of annual deposits (D) and annual advances (A), i.e., V=D+A

vi) m_1 = manpower expenses per employee.
  = M/N, where,

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M = Total manpower expenses of the bank during the year, and,
N = Total number of employees in the bank during the year

vii) m_2 = volume of business per employee = V/N, where,
V = Sum of annual deposits (D) and annual advances (A),
i.e., V=D+A,
N = Total number of employees in the bank during the year.

They observed that a business's profitability bank is positively related to 'r', 'c', 'm_1' and 'm_2' but the relationship is negative with 'k', 'm', and 'o'.

Padwal and Godse (1987) have measured profitability in terms of Spread and Burden as follows:

Profit (P) = Spread (S) – Burden (B),

Where,

S = Total interest income earned (R) – Total interest paid (K),
B = [Total manpower expenses (M) + Total other expenses (O)] – [Total Non- interest income (C)]

Thus,

P = S – B or P = (R-K) – (M + O – C) --------------- (6.1)

Dividing throughout by the volume of the working fund, equation (6.1) is transformable into into relative measures as

p = (r - k) – [(m + o) – c]
= r – k – m - o + c
= r + c – k – m – o -------------- (6.2)

Thus, p would be high if:

1) r is high,
2) c is high and
3) k, m, o, are low.

Demirgüç-Kunt and Huizinga (1998), in their study, have shown that the relationship between the differences in interest margins and bank profitability is reflected by various determinants like,

- bank characteristics,
- macroeconomic conditions,
- explicit and implicit bank taxes,
- regulation of deposit insurance,
- general financial structure, and
- several underlying legal and institutional indicators.

They formulated a profit function for commercial banks as follows:

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$$Profit=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\beta_6X_6+\beta_7X_7+\beta_8X_8+\beta_9X_9+\beta_{10}X_{10}+\beta_{11}X_{11}+u$$

Where,

- X_1= interest spread,
- X_2 = pre-emption due to SLR and CRR,
- X_3 = rural – semi-urban branch ratio,
- X_4 = wage rate,
- X_5 = average labour productivity,
- X_6 = policy of the government,
- X_7 = price index,
- X_8 = market share,
- X_9 = fixed deposit to total deposit ratio,
- X_{10} = priority sector lending to total lending ratio,
- X_{11} = recovery rate and
- u = the random factor.

They found positive values for coefficients β_1, β_5, β_6, β_8 and β_{11} but negative values for coefficients β_2, β_3, β_4, β_7, β_9 and β_{10}.

2.5 Variables and Ratios Considered

While analysing bank group-wise profitability during the study period, we have used a number of variables. They are considered the profitability ratios. In fact in the literature, one finds a wide number of ratios and variables used by different academics while analysing profitability. However, considering the theme and objectives of this research, the following ratios are adequate in the analysis of bank group-wise profitability in India. We put them in a tabular form to understand their formulae and description.

Table:1 Profitability Ratios

No.	Ratio	Formula	Description
1	ROA	NOI/TA	Net Operating Income (after tax) divided by total average assets.
2	ROE	NOI/EQ	Net Operating Income (after tax) divided by Average Shareholder's Equity
3	NIM	Int. Inc – Int. Exp / Avg. Earning Assets	Measures the spread and relationship of interest- bearing assets to interest-bearing liabilities
4	OTHER INCOME	TOA/TA	Total Operating Assets divided by Total Average Assets.
5	LOAN PROVISION	LP/TA	Provisions for Loan divided by Total Average Assets.

2.6 Measurement of Bank Profitability

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Measures of post-tax rates of return, such as the return on average total assets (ROA) and the return on total equity (ROE) are widely used to assess the performance of banking firms. The same applies to commercial banks as well. ROA and ROE have been used by bank regulators and analysts to evaluate industry performance and foresee trends in market structure. In statistical models to forecast specific bank failures, mergers, etc., they are also utilized as inputs. In certain studi cost of intermediation [the accounting value of bank's net interest revenue as a share of its interest-bearing (total earning) assets.] as an important parameter for evaluating the performance of a bank.

The main performance indicators to measure and analyse the profitability of banks are used in this thesis. They are computed for different bank groups over the study period. They comprise:

a) **Return on Assets (ROA):** The Return on Assets ratio is an important profitability indicator or a ratio. It measures the efficiency with which the company is managing its investment in assets and using them to generate profit. It calculates the profit made in relation to the firm's degree of asset investment. The ratio of return on assets indicates banks' skills to manage the assets. Hence, the ROA is an important performance indicator of banks. It is worked out by taking the ratio of net profit or loss to average total assets. Symbolically, it is expressed as

Return on assets = Net Profit / Total Assets
……………..(6.3)

The changing trends in the Returns on Assets (ROA) of various bank groups in India during the study period are depicted in the following chart - 2.

Chart - 2 Bank Groupwise RoA in Recent Years (percent)

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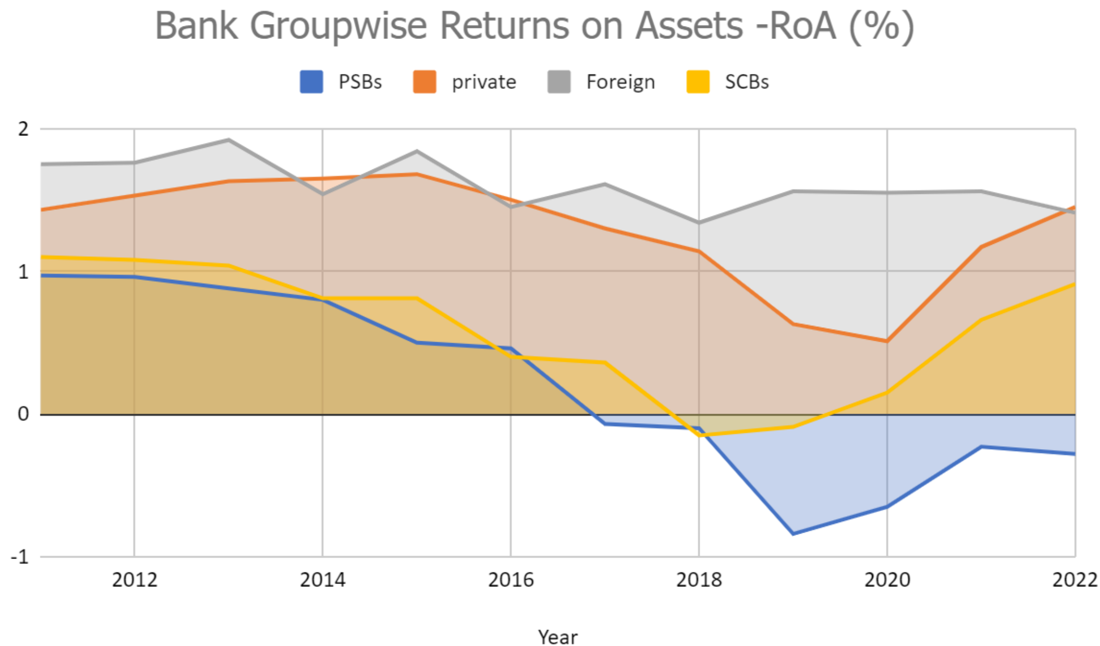

Source: Trends and Progress Report of Banks in India, RBI, Various issues

The Returns on Assets - RoA is an important indicator of the bank's profitability. In this chart 6.5 it is clearly stated during the time frame the past 10 years. The data shows that the profitability has travelled on the bumpy roads in the last decade for the scheduled commercial banks. 2011 and 2012 seem to be the best years as the RoA was above 1.0 percent which is considered as the best benchmark of profitability in the industry. However, since then it started sliding gradually thereafter and became worse in the year 2018 with minus 0.15 percent. However, since 2020 it has started getting on the path and consistently improved up to 0.91 percent in 2022. Among their peers, the foreign banks have been top performers as their RoA has been top in the industry and has been always above 1 percent . The year 1993 was the best year for foreign banks with RoA of 1.92 percent and in the year 2022, it had been at 1.41 percent indicating very sound banking parameters and efficient functioning of the foreign banks. The second place is occupied by the private sector banks, occasionally overtaking the foreign banks. 2016 to 2020 was a bad patch for private sector banks as their RoA kept sliding, but it bounced back remarkably in 2021 and 2022 standing at the first rank. The most laggard are the public sector banks with very poor returns on their assets below 1 percent, always indicating a need for improvement in the functioning of PSBs. The year 2012 was better with the highest RoA at 0.96 percent and 2019 was the worst with a negative RoA worth

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minus 0.84 percent. Thus it is crystal clear that among the different bank groups, the top profitable banks are from the foreign banks category and the least performing are from the PSBs.

b) **Return on Equity (ROE)**:- Of all the financial measures used to evaluate a bank's performance, the Return on Equity ratio may be the most crucial. It serves as a gauge of how well a banking organization uses capital. It gauges the return on the capital investors have invested in tvestors have put into the company. This is the ratio potential investors look at when deciding whether or not to invest in the company. Generally, the higher the percentage, the better, with some exceptions, as it shows that the company is doing a good job using the investors' money. It is simply the profit-to-equity ratio. It is the most significant indicator of profit, which measures the banking management in all its dimensions. It offers an image of the way to use the capital brought from shareholders. The ROE is defined as the ratio of net profit or loss to 'average capital plus reserves and surplus'. The ROE is symbolically expressed as

Return on Equity = Net Profit/(Capital + Reserves and Surplus)

or

ROE = (Net Profit/Capital)*100 ………………(6.4)

Chart: 3 Bank Group-wise Returns on Equity in Recent Years (percent)

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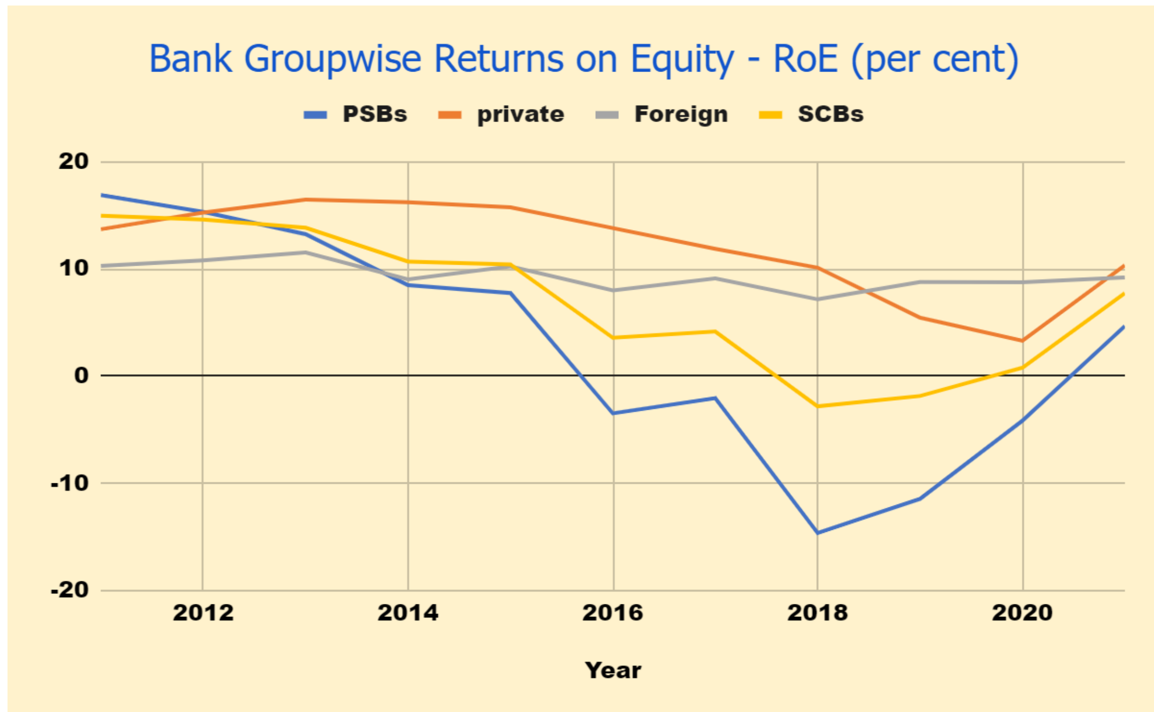

Source: Trends and Progress Report of Banks in India, RBI, Various issues

If we analyse the bank group-wise Returns on Equity (RoE) during the recent years, then it is found that the returns on equity of scheduled commercial banks were on a downward trend between 2013 to 2018. However, after that, it started moving up and in the year 2022, the RoE of scheduled commercial banks reached 7.73 percent . The years 2018, 2019, and 2020 seem to be the worst years for the investors investing in bank stocks as the returns on equity during this year were either very poor or negative in the case of some of these banks. The worst hit are investors with public sector banks yielding negative returns between 2016 and 2020. Among the different bank groups, the private sector banks seem to be the best performers, giving better returns to their investors for most of the year in double digits. Even the foreign bank units have also rendered moderate returns on equity. Thus it is very clear that as far as RoE is concerned, the private sector bank group ranks top followed by the foreign bank group, and the least performer are the public sector banks.

3. Bank Group-Wise Profitability Indicators

The various bank groups have performed in different ways with respect to the profitability. In the year 2021-2022 out of five major bank groups, the pirate sector banks have performed in the best way. I have used some important indicators such as the ratio of net interest income to total assets (also known as

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NIM), Non-interest income to total assets, burden to total income, RoA and RoE. These ratios are explained in the following table.

Table 2 Bank Groupwise Profitability Indicators (percent)

	PSBs	PVT	FOREIGN	SFBs	Payment Banks	All SCBs
Ratio of net interest income to total assets (Net Interest Margin)	2.44	3.58	3.37	**6.88**	2.67	2.92
Ratio of non-interest income to total assets	1.01	1.47	1.04	1.60	**41.42**	1.19
Ratio of burden to interest income	13.72	11.71	17.18	31.09	**84.44**	13.48
Ratio of operating profits to total assets	1.64	2.78	2.51	**3.13**	-0.80	2.09
Return on assets	0.55	**1.45**	1.41	0.53	-0.34	0.91
Return on equity	8.83	**12.20**	8.03	4.58	-7.63	10.15

Source: Statistical Tables Related to BAnks in India, RBI, 2021-2022

4 . Concluding Remarks

In this chapter, we have touched upon the profitability aspect of commercial banks between 1991 and 2007. In the initial part of this chapter, we

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have discussed various terms, concepts, and ratios. Then we tried to focus on various profitability indicators for different bank groups during the study period. They comprised the ROA, the ROE, the NIMTA, the BURTA, etc. We found that in terms of these indicators, the foreign bank group outperform other bank groups in India during the study period. It is equally true that the PSBs, though latecomers in the race, are catching up fast vis-à-vis the private sector banks in India on the profitability issue.

. The profit function was devised and it was tested with the available data. The major finding of this exercise is that non-interest income exerts a statistically significant impact on the profit/loss of various bank groups, more prominently in the case of returns of private banks and the foreign banks. In order to understand the volatility in the profitability of different bank groups, the coefficient of variation regarding certain parameters was taken into account. We found that the ROA is highly volatile in the case of the nationalised banks and it is most stable in the case of the private sector banks during the study period. To conclude, an attempt to concentrate on the non-interest income and neglect interest income will have an adverse impact on the volume of profit of the banks. Non-interest income should not be given exclusive importance by banks ignoring their traditional and stable lending-borrowing business.

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