

PROFITABILITY OF COMMERCIAL BANKS : A COMPARATIVE STUDY OF SELECT BANKS

P.K. Jain and Manoj Kumar*

The Indian banking system comprises of a large number of banks which are heterogeneous in terms of their size, structure and performance. This paper examines the profitability of five banks which are largest in their respective groups on the basis of their total assets in 1992. The paper covers the five year period, 1992-96, coinciding with the process of economic and financial sector reforms in the country. The main findings include that the smallest bank in the sample is the most profitable. Besides, private and foreign banks as a group are at the top and the nationalised banks are at the bottom. In general, more profitable banks happen to be more efficient. Finally, non-interest income is an important source of higher profitability, especially in the case of the Vysya Bank in private sector which has the highest profitability, despite the lowest spread on fund based operations. Nevertheless, the importance of better spread and cost control cannot be undermined as revealed by the performance of the foreign banks.

INTRODUCTION

Banking sector plays an important role in shaping the economic destiny of a nation. India is served by a vast network of banks which are heterogeneous in terms of their size, structure and performance. Initially, they were expected to expand their network and reach out to maximum number of people and build sound financial infrastructure essential for economic growth. However, in the recent years, the issue of profitability of commercial banks has become especially important and debatable on account of the liberalisation of the financial sector and declining trend in profitability of the banking sector. In fact, many of the public sector banks have gone into the red.

Although profits are not the be-all and end-all of the banking business, commercial banks being commercial organisations cannot and should not ignore profits. Profitability of banks ensures investor confidence, additional funds for expansion, creation of necessary infrastructural facilities to increase the volume of business, effective customer services and reserves to meet unforeseen contingencies and losses.

The Narasimham Committee on the financial system (1992) and the Committee on banking sector reforms (1998) have stressed that the structure of banking system should be 'market driven and based on profitability considerations brought about through a process of mergers and acquisitions'.

* Dr. P.K. Jain is Professor of Finance, Department of Management Studies, Indian Institute of Technology, Hauz Khas, New Delhi.

Dr. Manoj Kumar is Senior Lecturer, SRCC, Delhi.

Obviously, profits and profitability can not be attained in a haphazard manner. It depends, inter-alia, on economies and flexibility of operations, efficiency of organisation, and above all, extensive profit planning.

Thus, in this brief paper, an attempt has been made to analyse and compare profitability of select commercial banks distinguished by their ownership pattern and operations in India for at least five years, i.e., since introduction of economic and financial sector reforms in 1991-92.

The present study is inspired by the structure-conduct-performance (S-C-P) analysis and studies on relationship between bank size/type and profitability. Besides, in the wake of liberalisation, several studies have been conducted to determine the effects of deregulation on profitability and performance of banks and other financial institutions.

The S-C-P studies seek to establish a relationship between market structure or concentration and profitability in banking. The evidence on this aspect is inconclusive. The general belief is increase in market share leads to monopoly profits.

While Gilbert (1984) found that 32 out of 44 studies support the traditional hypothesis, Smirlock (1985) favours efficiency hypothesis. He concludes that the market share tends to result from efficiency. In the European context Molyneux and Forbes (1995) have also found evidence of relationship between profits and market concentration.

Elyasiani and Mehdi (1995) have (a) compared the relationship between size and productive performance of banks and (b) changes in their performance following the changes in banking environment in the

1980s. They found that in regulated era the smaller banks were relatively more efficient whereas later the size became immaterial. But the dispersion in efficiency measures of smaller banks increased very sharply after deregulation.

Walker (1994), however, did not find, from a mixed cross section/time series analysis, any evidence that deregulation was responsible for falling networth of the savings and loans institutions. Gropper (1995), in contrast, found that recent restrictions on thrift power of such institutions may raise intermediation costs for savings and loans firms. It would restrict their ability to exploit economies of scope. It may be noted here that Le Compte and Smith (1990), Gropper (1991) and Hunter and Timme (1991) have found evidence that the changes in regulatory and technological structure influence cost structure of financial institutions.

The above studies have implications for India too where restrictions on smaller non-bank financial intermediaries (NBFIs) are increasing but banks and development finance institutions are being accorded greater operational flexibility.

The above review is indicative and not exhaustive. It simply shows virtually endless possibilities for further research in terms of the range of issues, methodology and specific techniques of data analysis.

The present paper is divided into six sections including the present one. Section II outlines the objectives, scope methodology and limitations of the study. Section III presents profitability analysis in terms of the ROE model. Section IV and V examine revenue and expenses respectively. Finally, Section VI brings together main findings of the study and draws policy implications of the findings.

OBJECTIVES, SCOPE AND METHODOLOGY

The specific objectives of the present study include :

- To analyse and compare profitability of select Indian banks in the post-liberalisation period;
- To examine factors underlying differences in their profitability;
- To infer whether differences, if any, in their profitability could be traced to differences in their ownership pattern and structure;
- To determine policy implications of their performance in the context of the on going reform process and the proposed restructuring of the banking sector.

The scope of the present paper is limited to five large banks in different categories or groups at the time of the initiation of the economic and financial sector reforms in 1991-92. The size was determined in terms of their total assets in 1992. The groups,

number of banks in each group, the largest bank in each group and the size of their assets in 1992 are given in Table 1.

Here, the SBI has been considered a group in itself in view of its size and functional and spatial coverage in India. It is the largest bank of India. New private banks set up in this period have been excluded. This exclusion is justified partly because our principle objective is to examine the response of existing banks to new economic policies and changes in regulatory and business environment. Although inclusion of such banks would have enriched the analysis, the relevant data was not available for the five year period 1992-96, covered by the study.

The relevant data for this purpose have been collected from the summary of income statements and balance sheets of banks published by the Indian Bankers' Association. Besides, the Official Directory of the Bombay Stock Exchange, and various other publications of the Reserve Bank of India (RBI) have also been used.

Table 1 : The largest bank in different bank groups ranked by total assets in 1992

(Rs. crore)

Bank group (Number of banks)	The largest bank	Total assets
The largest among all	The State Bank of India (SBI)	98,535
Nationalised banks, excluding SBI (19)	Bank of India (BOI)	24,145
Foreign banks (29)	Citti bank, N.A. (Citi)	6,658
Associate banks of SBI (7)	State Bank of Hyderabad (SBH)	4,147
Private banks (25)	The Vysya Bank (Vysya)	1,993

Source : Indian Bankers Association (1997)

The study is primarily exploratory in nature. It follows the traditional three-tier return on equity (ROE) model. The model has been used to compare the performance of the largest bank in each group with the performance of all the banks forming the group. For instance, the performance of the Citi bank has been evaluated vis-a-vis the 29 foreign banks taken together.

The ROE model is useful for its decomposition analysis. The beginning point is time series or trend and cross-section (comparison with competitors, industry or benchmark values) analysis indicating the symptoms of good or bad performance. Next comes the three-tier decomposition of ROE. It is followed by analysis of profit margin in terms of revenue and cost composition and availability of spread.

The ROE model has been preferred to econometric techniques for analysing overall profitability because of complex nature of profits in a commercial bank. Banks use multiple inputs and produce multiple outputs. Besides, differentiation of inputs from output poses conceptual problems, viz., deposits mobilised from public may be taken as either input or output. This calls for inclusion of several explanatory variables (regressors), but in econometric analysis their number should be smaller than data entry points. In operational terms, this implies that the number of regressors should be smaller than number of years considered for each bank and number of banks considered for each year. The reason being we need at least as many equations as the number of variables (regressors) to be estimated.

PROFITABILITY ANALYSIS ; THE ROE MODEL

The Indian banking system today is facing a two pronged challenge. One to improve their profitability and the other to serve the

public with greater social obligation and efficiency. The ultimate test of profitability of a firm or a bank is return on equity (ROE). It is computed as net profits or earnings after tax (EAT) expressed as a percentage of shareholders' equity or networth. It is the ultimate test of profitability because the end goal of financial management is to maximise return to shareholders. Since it is a relative measure, it shows which firm/bank is managing the equity shareholder's funds most efficiently. Besides, the ratio is found to be significantly related to company bond rating and to be useful as a predictor of company failure (Lynch and Williamson, 1989).

Net profits or income is used for it reflects the ultimate result or the 'bottom line' of total operations in a given period; use of shareholders' equity serves as a short run proxy for long run wealth maximisation of shareholders.

Time series trend and cross section (competitors, industry or benchmark value) analysis of ROE indicates good or bad performance. It is followed by decomposition analysis of ROE.

The elements of the ROE model are summarised below (Sinkey, Jr., 1983):

$$\begin{aligned} \text{Return on equity} &= \text{Return on assets} \times \text{Equity multiplier} \\ &= \text{Profit margin} \times \text{Asset utilisation} \times \text{Equity multiplier} \\ \text{Net profit/Equity} &= \text{Net income/Gross income} \times \text{Gross income/Total assets} \\ &\quad \times \text{Total assets/equity} \end{aligned}$$

The above equations suggest that the ROE model consists of five stages :

- Trend and cross-section analysis of return on equity (ROE)
- Analysis of return on assets (ROA)
- Analysis of equity multiplier (EM)
- Analysis of asset utilisation (AU)
- Analysis of profit margin (PM)

Return on Equity (ROE)

Table 2 presents the relevant data for the five year period (1992-96) on ROE of five large banks chosen for the study, namely, State Bank of India (SBI), State Bank of Hyderabad (SBH), Bank of India (BOI), Citibank, N.A. (Citi), and The Vysya Bank (Vysya) and their corresponding group, associate banks of SBI (SBIA) for SBH, nationalised banks (NATL) for BOI, foreign banks (FORN) for Citi and private banks (PVT) for Vysya bank.

It is interesting to note that the smallest bank in group, namely the Vysya bank is

most profitable followed by Citi, SBH, SBI and BOI in that order, the ranking order for group-wise analysis being private banks, SBI, SBIA, foreign banks and nationalised banks.

Besides, the largest bank in each group appears to have out-performed the group, the notable exception being BOI which shows negative ROE in two years. The ROE for nationalised banks is also negative but to a lesser degree. Obviously some of the nationalised banks are profitable.

Trend-wise analysis shows decline in ROE of BOI in 1993-94 and sustained recovery after that. It is primarily due to additional provision for accumulation non-performing loans and subsequent infusion of capital by the Government of India through budgetary support. This appears to be the reason for the trend noticed for nationalised banks as well. Apparently, the negative ROE for Citibank in 1993 is due to provisions it had to make for probable losses in the wake of the scam of 1992.

Table 2 : Return on equity of select banks and bank groups, 1992-96

(Figures in percentage)

Year	Bank performance					Group performance			
	SBI	BOI	CITI	SBH	VYSYA	SBIA	NATL	PVT	FORN
1992	12.0	8.5	54.3	20.6	35.3	15.0	10.4	26.7	42.2
1993	12.8	(49.6)	24.0	17.5	27.8	11.9	(48.3)	13.6	(50.2)
1994	6.7	(68.4)	17.0	17.9	28.7	12.1	(28.7)	18.9	19.0
1995	15.1	2.1	24.5	21.9	45.3	15.8	1.3	29.8	17.5
1996	15.2	21.9	21.5	20.2	28.5	(2.4)	(5.5)	18.2	13.8
Mean	12.36	(17.10)	28.25	19.62	28.5	10.49	(14.15)	21.43	8.48
CV(%)	28.1	(230.9)	52.6)	9.5	33.11	70.5	(169.4)	31.0	408.6

CV = Coefficient of variation = Standard deviation/Mean x 100

Table 3 : Return on assets of select banks and bank groups, 1992-96

(Figures in percentage)

Year	Bank performance					Group performance			
	SBI	BOI	CITI	SBH	VYSYA	SBIA	NATL	PVT	FORN
1992	0.178	0.227	2.088	0.313	0.621	0.331	0.308	0.542	1.503
1993	0.205	(1.315)	1.208	0.337	0.584	0.268	(1.616)	0.322	(2.750)
1994	0.236	(3.963)	1.117	0.361	0.668	0.261	(1.620)	0.533	1.446
1995	0.562	0.156	2.084	0.595	1.233	0.354	0.090	1.042	1.594
1996	0.554	0.774	2.009	0.589	1.738	(0.085)	(0.345)	0.959	1.369
Mean	0.35	(0.82)	1.70	0.44	0.97	0.23	(0.64)	0.68	0.63
CV (%)	55.8	(232.6)	29.0	32.0	52.1	78.9	(145.5)	45.2	299.3

CV = Coefficient of variation = Standard deviation/Mean x 100

Table 4 : Equity multiplier of select banks and bank groups, 1992-96

(Figures in percentage)

Year	Bank performance					Group performance			
	SBI	BOI	CITI	SBH	VYSYA	SBIA	NATL	PVT	FORN
1992	67.4	37.7	26.0	65.8	56.9	45.4	33.9	49.4	28.1
1993	62.3	37.7	19.9	52.0	47.5	44.3	29.9	42.2	18.2
1994	28.3	17.2	15.2	49.6	42.9	46.2	17.7	35.4	13.1
1995	26.9	13.2	11.7	36.8	36.7	44.7	14.5	28.6	11.0
1996	27.5	28.3	10.7	34.2	16.4	27.7	15.8	18.9	10.1
Mean	42.468	26.838	16.708	47.669	40.093	41.650	22.373	34.911	16.112
CV (%)	48.263	42.367	37.882	26.782	37.764	18.831	39.670	33.842	46.029

CV = Coefficient of variation = Standard deviation/Mean x 100

Return on Assets (ROA)

The ROA is a well accepted measure of the overall profitability. It is computed by dividing net profits by total assets.

The relevant data presented in Table 3 reveal that ranking order of banks and groups in terms of ROA is Citi, Vysaya, SBH, SBI and BOI for banks and private, foreign, SBI, SBIA, and nationalised banks.

Perhaps the most notable aspect in this regard is declining trend in profitability in 1995-96. In fact, it is negative for SBIA and nationalised banks. The underlying causes for the pattern require further analysis of leverage factor, asset utilisation rate and profit margin.

Equity Multiplier (EM)

The equity multiplier introduces the leverage factor in profitability analysis. It is the reciprocal of capital to asset ratio. If bank managers attempt to increase ROE by using greater leverage they may incur the wrath of the regulatory authorities since capital to asset ratio is an important indicator of risk exposure of a bank. Hence, the Reserve Bank of India is also insisting on capital adequacy norms as suggested under Basle accord and endorsed by the Narasimham Committee (1992).

This poses a dilemma for bankers as they must earn a return high enough to keep shareholders happy and it needs use of

greater financial leverage. However, high leverage is not favoured by authorities.

The data on EM given in Table 4 show that SBH and SBI are the top rankers in terms of EM. Two additional aspects merit attention in this regard. First, the foreign banks are more conservative in this regard. Second, a steady decline in the EM for all the banks and bank groups. It may be partly due to the impact of new capital adequacy norms in the post liberalisation period.

Asset Utilisation (AU)

Asset utilisation factor is ratio of operating income to total assets. An alternative way of improving both ROE and ROA is to focus upon AU. If PM and EM remain unchanged, the better AU will mean higher profitability for it is often taken as an indicator of efficiency.

One way to improve AU is through portfolio management. In particular, a shift from lower yielding assets (usually securities) to

Table 5 : Asset Utilisation of select banks and bank groups, 1992-96

(Figures in percentage)

Year	Bank performance					Group performance			
	SBI	BOI	CITI	SBH	VYSYA	SBIA	NATL	PVT	FORN
1992	0.11	0.11	0.13	0.12	0.09	0.12	0.11	0.10	0.14
1993	0.11	0.09	0.15	0.11	0.08	0.11	0.10	0.10	0.12
1994	0.09	0.08	0.13	0.09	0.08	0.10	0.09	0.10	0.12
1995	0.10	0.08	0.13	0.10	0.07	0.10	0.09	0.09	0.12
1996	0.10	0.09	0.14	0.11	0.11	0.11	0.10	0.11	0.12
Mean	0.10	0.09	0.14	0.11	0.09	0.11	0.10	0.10	0.12
CV (%)	7.12	10.43	7.08	8.99	18.40	6.43	6.00	6.15	9.03

CV = Coefficient of variation = Standard deviation/Mean x 100

Table 6 : Profit margin of select banks and bank groups, 1992-96

(Figures in percentage)

Year	Bank performance					Group performance			
	SBI	BOI	CITI	SBH	VYSYA	SBIA	NATL	PVT	FORN
1992	1.60	2.15	16.07	2.69	6.90	2.80	2.89	5.33	10.44
1993	1.90	-14.28	8.04	3.06	7.43	2.42	-16.33	3.24	-22.82
1994	2.56	-48.16	8.93	3.91	7.89	2.56	-17.42	5.49	12.33
1995	5.64	1.89	15.45	5.82	17.94	3.50	0.99	11.15	13.52
1996	5.29	8.34	14.43	5.24	15.59	-0.78	-3.52	8.73	11.32
Mean	3.40	-10.02	12.59	4.14	11.15	2.10	-6.68	6.79	4.96
CV (%)	56.60	-228.77	30.18	32.78	46.68	79.23	-143.81	46.10	314.10

CV = Coefficient of variation = Standard deviation/Mean x 100

higher yielding assets (usually loans) is required. But an improvement in AU may result in a deterioration in PM or vice-versa.

This is consistent with the risk-return relationship underlying the financial management.

A perusal of Table 5 reveals :

- a) the ranking of individual banks corresponds to that of their group,
- b) while it appears to be an important reason for higher profitability of foreign banks in view of their lower EM, the performance of nationalised banks in this regard is far from satisfactory.

Profit Margin (PM)

Profit margin is the third measure of profitability in the ROE model. It expresses net income as a ratio of operating or gross income. It represents

- ability of a bank to generate income
- ability to control operating and financial expenses
- consistently good management

Accordingly foreign and private banks appear to be better managed than others particularly nationalised banks (Table 6). While the sharp fluctuations noticed for BOI and nationalised banks appear to be due to reasons noted above, the margins of foreign banks are initially lower due to their late entry and rise subsequently as a result of economies of scale.

Table 7 summarises the preceding discussion on profitability of the Indian banks in the form of ranking of banks and corresponding bank groups by elements of ROE model. Since profit is the difference between revenue and expenses, revenue analysis has been carried out in the next section.

Table 7 : Ranking of banks and corresponding bank groups by elements of ROE model

Bank name	ROE		ROA		EM		AU		PM	
	Bank	Group	Bank	Group	Bank	Group	Bank	Group	Bank	Group
Vysya	1	1	2	1	3	3	4	4	2	1
Citi	2	4	1	2	5	5	1	1	1	2
SBH	3	3	3	4	1	2	2	2	3	4
SBI	4	2	4	3	2	1	3	3	4	3
BOI	5	5	5	5	4	4	5	5	5	5

REVENUE ANALYSIS

As noted in previous section profit margin constitutes an important measure and determinant of overall profitability. By definition, the profit function expresses the maximised profits for a firm in a competitive situation as a function of total revenue and costs. The profit equation is :

$$\Pi = R - I - O - T$$

where Π = Earnings after tax (EAT)

R = Gross revenue

I = All interest expenses

O = All non-interest expenses
(overheads and provisions)

T = Taxes

The profit function is non negative, increasing in output prices, decreasing in input prices, provisions and taxes, and increasing in quantities of fixed factors.

The main sources of revenue for a bank are as follows.

Interest and discount : The interest on loans made by a bank and discount charged on bills of exchange constitute the principal source of income as loans and advances account for a sizable proportion of their total

assets and working funds. The level of interest income depends on :

- volume of advances,
- advance mix in terms of maturity pattern, sectoral coverage, type, etc.,
- yield on each type of advance.

In our analysis broadly four types of interest incomes have been considered :

- Interest and discount income from loans and advances.
- Interest income from investment in securities, held primarily to satisfy statutory liquidity ratio (SLR) requirements.
- Interest on balances with the RBI under cash reserve ratio (CRR) requirements and cash balances held with other banks.
- Others or residual interest income not covered above.

Commission, exchange and brokerage :

Another important source of bank earnings is commissions, fees, exchange charges and brokerage which the bank charges for

a wide assortment of services rendered by it. For many years and even today many services are performed by commercial banks free of charge or at a nominal cost.

Other sources of revenue : This category includes profit on sale of investments, rents, profit on sale of land, building and other assets and income from non-banking assets and other miscellaneous sources. Banks may also charge for a loan commitment and execution of mortgages or agreements securing loans.

In our analysis the above revenues have been clubbed together with commission, exchange and brokerage for they represent non interest income.

The composition of gross revenue and interest income and the importance of non interest income as a determinant of profit margin and ROE is provided in Tables 8 and 9.

A perusal of these tables reveals the following notable aspects :

- a) As expected on a priori basis interest income from loans and advances constitutes the principal source of income for all banks and bank groups.
- b) The composition of interest income is virtually same for all the banks and bank groups, save for interest on loans and advances in the case of Citibank. It can perhaps be attributed to the fact that foreign banks are permitted to lend to priority sector to a lesser degree only. This enables them to undertake investment in non-interest bearing securities. It may be noted that capital gains on such securities constitute part of other income. This enables them to turn over their resources much faster as revealed by their first rank in terms of asset utilisation rate (AU) discussed in the previous section.
- c) Apparently the relative importance of interest income from investments and banks (including RBI) is virtually same for all banks as they are subjected to more or less similar CRR and SLR

Table 8 : Interest income and gross revenue composition of select Indian banks and bank groups on average basis, 1992-96

(Figures are in %)

Bank/Group	Total interest income from				Non-interest income
	Loans & Advances	Investment	Banks	Others	
SBI	0.46	0.29	0.08	0.02	0.15
BOI	0.52	0.27	0.09	0.01	0.12
CITI	0.43	0.27	0.07	0.00	0.23
SBH	0.51	0.28	0.06	0.01	0.15
VYSYA	0.50	0.27	0.06	0.02	0.16
SBIA	0.48	0.28	0.07	0.01	0.13
NATL	0.48	0.27	0.07	0.01	0.11
PVT	0.49	0.27	0.07	0.01	0.12
FORN	0.48	0.27	0.07	0.01	0.17

Table 9 : Importance of non-interest income as a determinant of profitability and profit margin of select Indian banks and corresponding bank groups, 1992-96

Bank name	ROE		PM		Non-interest Income	
	Bank	Group	Bank	Group	Bank	Group
Vysya	1	1	2	1	2	4
Citi	2	4	1	2	1	1
SBH	3	3	3	4	4	3
SBI	4	2	4	3	3	2
BOI	5	5	5	5	5	5

requirements.

- d) For all the banks and groups, interest on securities has emerged as the second most important and stable source of income.
- e) All these factors taken together underscore the importance of cost management in banks and management of Non-Performing Loans (NPLs) for higher profitability.

Accordingly expense analysis constitutes the subject matter of the next section.

EXPENSE ANALYSIS

The present section deals with expense analysis of the sample banks and their corresponding groups. It is the last stage in the ROE decomposition analysis. In this section a brief discussion on structure of bank expenses is followed by expense analysis for the sample group and the importance of cost as a determinant of spread and overall profitability.

Earlier the profit equation was defined as :

$$\Pi = R - I - O - T$$

This equation includes three broad types of

expenses.

The interest component (I) includes interest cost of funds obtained through deposits mobilised through public and placed by other banks, borrowings from the Reserve Bank of India (RBI) and inter-bank borrowings.

It determines the spread available to a bank on its loan operations or in a broader sense on all fund based operations.

The operating expenses (O) signify overheads for they tend to be relatively fixed and do not vary directly and proportionately with business of a bank. The major components of operating expenses for a bank include :

- Wages and salaries
- Net occupancy or establishment expenses
- Provision for loan losses
- Other expenses, viz., printing and stationary, advertising, auditors' fee etc.

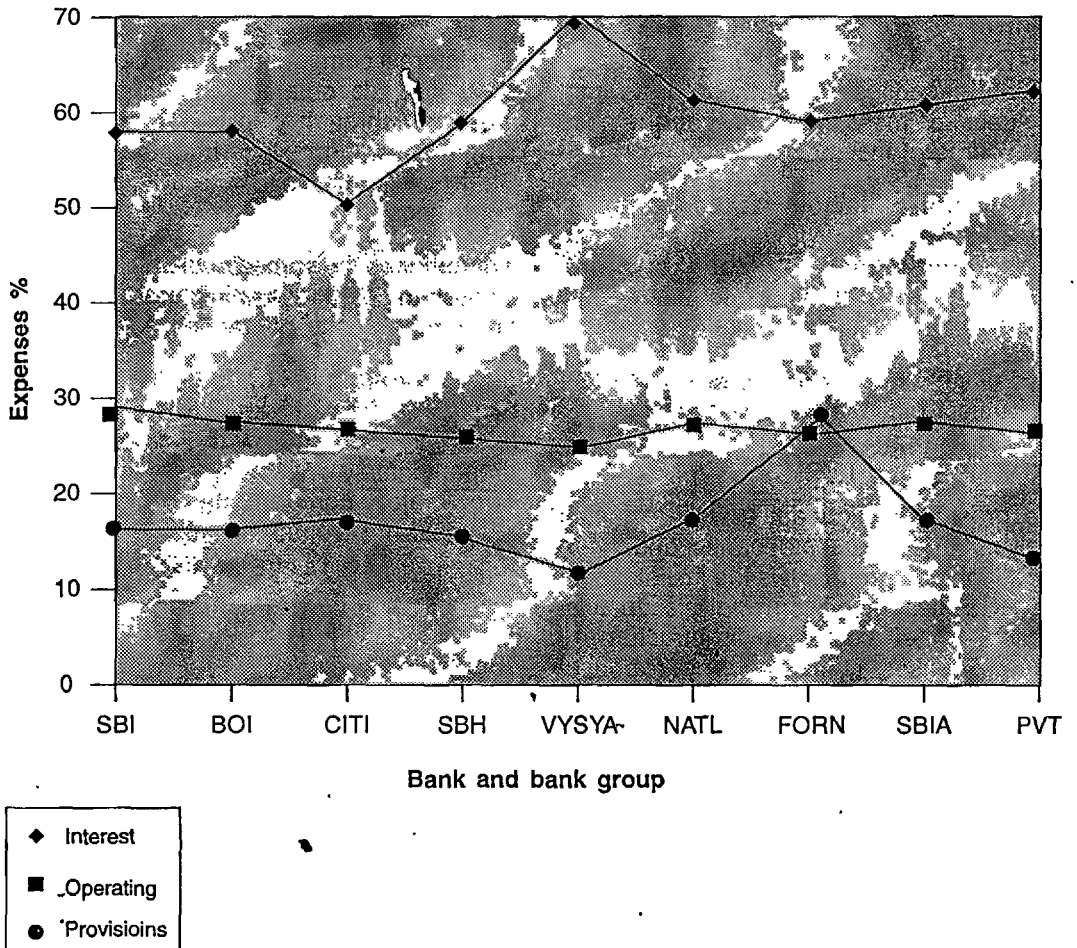
Although loan loss provisions are included in operating expenses, we have considered provisions separately in view of their

importance. However, tax element (T) has been ignored here.

The expense analysis of sample banks and their corresponding groups on average basis for the period 1992-96 (5 years) is presented in Chart-1. A perusal of the chart reveals following notable points :

- a) As expected interest costs constitute the principal cost component (nearly three fifths) followed by operating
- b) The Vysya bank in the private sector has the highest proportion of interest cost (two thirds) among all banks and groups. It gets reflected in relatively lower share of operating expenses and provisions as well.
- c) The private sector banks as a group also have relatively higher share of interest expenses. Since the largest

Chart 1 : Expense analysis of select Indian banks and bank groups, 1992-96



bank in the group (Vysya) is the smallest in the sample, apparently the smaller banks are forced to use costlier funds.

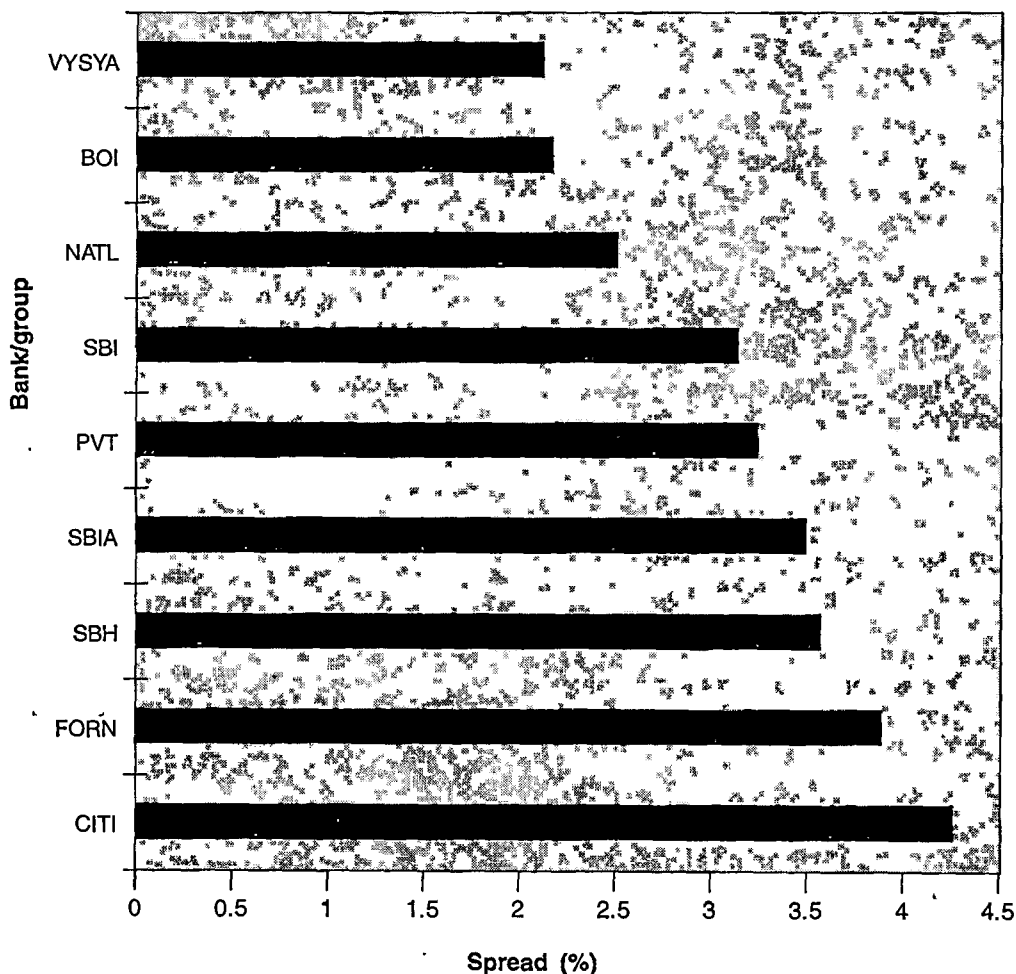
In due course, this may necessitate consolidation of several small banks and/or their take over by bigger banks. This has been proposed by successive Narasimham Committees (1992, 1998) also.

d) Apparently, relatively higher provisions by Citi bank and the corresponding group of foreign banks may imply generation of hidden reserves.

SPREAD ANALYSIS

Spread is defined as the difference between yield on earning assets minus cost of funds. In banking firms, it is computed as working

Chart 2 : Spreads of select Indian banks/groups, 1992-96



funds which are defined as sum of networth, borrowings, and deposits from public and other sources.

A higher spread indicates either high yielding asset mix or low cost of funds or both. It indicates profitability of operations, ability to generate surplus to meet operating costs, pay dividend to shareholders and build up reserves for future expansion and absorption of shocks.

Chart 2 shows spread earned by the sample banks and bank groups on average basis for 1992-96. A momentary glance at the chart clearly shows that Citibank is the undisputed leader in this regard. Even group-wise foreign banks rank first.

The minimum spread for the Vysya bank is explained by higher cost of funds for it as discussed before. Similarly, the lower spread for nationalised banks seems to be due to concessional priority sector advances which they have to make.

CONCLUDING OBSERVATIONS

The major findings of the study may now be summarised.

The study shows that the smallest bank in the group, namely the Vysya Bank in the private sector is the most profitable in terms of ROE. However, the bank group-wise performance is along expected lines. While private and foreign banks as a group are at the top, the nationalised banks are at the bottom. The average ROE for the period is negative for the Bank of India and its corresponding group nationalised banks.

The best performance for the smallest bank shows that there is scope for niche or 'boutique banking'. At the same time higher cost of funds for them may necessitate their merger with other smaller banks or take over by bigger ones.

Next, the largest bank in each group outperforms the group. The more profitable banks happen to be more efficient for they have higher asset utilisation ratio and enjoy better profit margins. Their combined effect tends to outweigh the downward effect of their lower leverage.

As expected interest constitutes the principal source of income for all the banks but non-interest income is an important source of higher profitability, especially in the case of the Vysya Bank which has the highest profitability despite the lowest spread on fund based operations. Nevertheless, the importance of better spread cannot be undermined as revealed by the performance of the foreign banks. Besides, the change in market structure of the banking system may materially alter their revenue and cost compositions. Ultimately there would be greater emphasis on cost management and control on both assets and liability side. In addition, the emphasis may shift to portfolio, spread and liquidity management in view of the gradual deregulation of interest rates.

Finally, the equity base of all the banks has shown gradual improvement in the recent years.

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