Profitability Analysis of Banks in India : A Basic Framework

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Profit has become a key parameter which gives a competitive edge for banks in the market oriented system. However, the post nationalisation generation of bankers, perhaps, have not been brought up under the profit oriented banking. This calls for the need to develop a simple but comprehensive framework of profitability analysis of a bank. An attempt is made in this paper to present such a basic framework along with some illustrations through data for the Indian banking system for two years (1994-96).

INTRODUCTION

Commercial banks in India were known to be working on the expected commercial pattern till the advent of nationalization of major banks in 1969. Social banking priorities during 1970s have eclipsed the importance of profitability aspect of banks. Deposit mobilization, branch expansion and priority sector lending occupied the centre stage of bankers' planning and performance plank. Financial sector reforms since 1991-92 in the form of deregulation of interest rate structure both on deposits and advances, capital adequacy norms, internationally accepted prudential accounting norms for recognizing the income, classifying the assets based on the credit risk involved, providing for the weaknesses in assets, etc., entry of new private and foreign banks, diluting the government stake in the equity holding of the banks without losing the majority stake, current account convertibility, etc., have changed the hitherto sellers' market to buyers' market and deposit driven banking to asset-driven banking.

The banks, whether in public sector or private sector, are called upon even now to pursue the same objectives specified at the time of nationalization, i.e. subserving the economic policy of the country. The only difference is that such pursuit shall be in tune with winds of change which are market oriented. In other words, the banks are back to their commercial character and play their role within the prescribed regulatory and legal framework and fast changing economic environment that is emerging in the post liberalization and globalization era.

Profit Orientation

Such a transformation calls for a matching response from banks and bank managements in retaining the best of methods and practices which are still relevant and look for new approaches, strategies and methods wherever warranted. Profit has become a key parameter which gives a competitive edge for banks in the market oriented system. Banks are going to capital market to augment their capital base besides emphasizing on internal generation of surplus: without attractive profitability track record banks cannot attract the investors in capital market. Periodical visits to capital

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market are a must for any commercial bank in future so as to keep up the prescribed minimum (8 per cent) level of capital adequacy stipulated by the Reserve Bank of India or maintain the competitive level of capital adequacy that is emerging in the Indian banking system.

Need for Framework

The post nationalization generation of bankers, perhaps, have not been brought up under the profit oriented banking. It is possible that the simple definitions of profit, and framework to arrive at the profit and related parameters are not much in vogue during pre-reform period. This calls for the need to develop a simple but comprehensive framework of profitability analysis of a bank. This framework shall help the bank to plan, budget and monitor its profit and related business parameters. It should also help the bank to analyze its strengths and weaknesses in this regard so as to enable it to devise suitable strategies to improve the profitability position. The framework also shall be flexible enough to suit its application at middle management tiers like zonal and regional offices and ultimately at each branch or profit centre of the bank. An attempt is made in this article to present such a basic framework along with some illustrations through data for the Indian banking system for two years (1994-96). It is hoped that this will help the bankers to practise it, the researchers to develop upon it and even the students of economics and commerce to familiarize themselves about it.

PROFIT AND COST CENTRES

The bank has to be divided organizationally into profit and cost centres. Thus, the bank as a whole is considered as a profit centre, the zone or region as a profit centre, and finally each branch of the bank as a profit centre. Further, all the administrative offices or departments at Head Office will be treated as cost centres as they may not have any substantial source of income. Thus, head office as a whole may be a cost centre, each department in head office is also a cost centre (except the centralized funds and investments management department), each zonal office or regional office as the case may be is a cost centre and even each training or stationery centre may be treated as a cost centre. All service branches which mainly cater to other branches' need for clearing of cheques, collection and remittance services, etc., may be treated as cost centres. Some of the cost centres may be having some source of income by way of recovery of these costs, but they are quite marginal in nature and, as such, may be treated as cost centres. Each cost centre may prepare an annual budget keeping in view the nature of activities it is involved in and planned. Such budgets are approved at an appropriate level in the organization. Mostly these centres will have the need for operating expenses only. Manpower expenses, building rent, lighting, transport and communication expenses are the major items of recurring expenditure of these cost centres. No separate proforma is required for these centres to prepare the budget. The existing schedule (16) of operating expenses (as indicated in Table 1) normally given in the final accounts of the bank with little flexibility for certain sub-heads as being practised in the form of subsidiary general ledger of the bank will serve the purpose to prepare, approve and monitor the budgets for these cost centres.

Each cost centre will come under the jurisdiction of some profit centre or a group of profit centres. While determining the profits of the respective profit centres the costs incurred by these cost centres are automatically apportioned and taken into account.

Table 1 : Operating Expenses of a Cost Centre

		For the Year/Hly/Qtr/Ending....	
Sr.No.	Particulars	Budgeted	Actual
1.	Payments to and Provisions for Employees		
2.	Rent, Taxes and Lighting		
3.	Printing and Stationery		
4.	Advertisement and Publicity		
5.	Depreciation on Bank's Property		
6.	Director's Fees, Allowances and Expenses		
7.	Auditors fees and Expenses (including branch auditors fees and expenses)		
8.	Law Charges		
9.	Postages, Telegrams, Telephones, etc.		
10.	Repairs and Maintenance		
11.	Insurance		
12.	Other Expenditure		

PROFITABILITY ANALYSIS : A FRAMEWORK FOR PROFIT CENTRES

The framework to analyze the profitability of a bank or a zone of a bank consisting few hundred branches or even a branch at the grass root level can be divided into three distinct parts. The first part of the framework emphasizes the computation of the profit earned, the second indicates the cost and yield parameters of the funds mobilized and deployed, and the final frame depicts the return and appreciation to the share holders of the bank.

Computation of Profit (Part I of the Framework)

The following parameters constitute the first part of the framework (see Table 2) and the explanation of the elements involved in each of the parameters is given herewith.

Table 2 : Profitability Format I : Profitability of Bank

(For the Qtr/Hly/Year-Ending.........)

Sr.No.	Parameter	Absolute Amount (Rs. Crores)		Percentage Growth (%) (Over previous.......)		Percentage to Average Working Funds (%)	
		Budgeted	Actual	Budgeted	Actual	Budgeted	Actual
1.	Interest Income						
2.	Interest Expenditure						
3.	Interest Margin (1-2) (or) Spread						
4.	Operating Expenses (or) Non-interest Expenditure (Of which) a) Wage Bill b) Other Operating Exp.						
5.	Surplus (+) or deficit (-) Spread (3-4)						
6.	Non-Interest Income						
7.	Total Income (1+6)						
8.	Burden (4-6)						
9.	Operating Profit (3-8)						
10.	Provisions for Taxes and Non-performing assets and other contingencies						
11.	Total Expenditure (2+4+10)						
12.	Net Profit (9-10)						

Interest Income

This parameter includes income by way of interest on advances as well as investments besides the interest earned, if any, on balances kept with the Reserve Bank of India towards maintenance of cash reserve ratio. Inter-bank lending, and call money market lending are also resources of interest income. Interest on advances include both from working capital finance to borrowers and term lending. Working capital finance can be in the form of cash credit, demand loan, overdraft and bill finance, both demand and usance bills. Term lending can be in the form of short term (repayable in less than a year), medium term (1-3 years) and long term (more than 3 years). The interest income from investments is another major source for banks. This includes mainly the investments to fulfil the maintenance of statutory liquidity ratio (SLR) though non-SLR investments are becoming increasingly important with the liberalization of financial markets in the country such as capital market, debt market, government securities (gilts) market, forex market, money market, etc.

Interest Expenditure

Interest expenditure includes interest paid on deposits as well as borrowings. Deposits include demand (current and savings) deposits as well as term deposits including Certificate of Deposits (CDs). Borrowings can be from the Reserve Bank of India or all-India financial institutions like NABARD, SIDBI, etc. besides RBI who provide refinance to commercial banks so as to encourage banks to provide primary finance to agriculture, small scale industry, exports, other priority sectors, etc. Borrowings can be from the money market in the form of call money or inter-bank transactions. Subordinated debt qualifying for Tier II capital is the new source of funds on which interest is to be paid at contracted rate.

Interest Spread

This is the bread and butter of any bank. It is arrived after deducting from the interest income the interest paid on deposits and borrowings. In the liberalized situation, the interest spread of banks is under pressure with borrowers asking for funds at lower rate of interest and at the same time the depositors demanding higher rates on their hard earned money kept with the bank.

Operating Expenses

This is the expenditure incurred towards salaries of the employees (wage bill) which constitute roughly two-thirds of the operating expenditure and the balance one-third incurred towards premises rent, lighting, transport, communications, depreciation and maintenance on use of infrastructure assets like premises, vehicles, furniture, machinery, equipment, etc., legal expenses, stationery and printing, advertising and publicity, insurance, etc.

Surplus (+) or Deficit (-) in Spread

At this stage, one should look into the magnitude of spread, i.e. whether it is covering all the operative expenses (S.No. 4 in Table 2) of the bank without taking into account non-interest income. It is possible that even profitable banks may sometime have deficit spread at this stage. Though there is no mathematical logic to consider the spread as surplus or deficit at this stage, one should expect that the entire bank is mostly involved in funded operations such as mobilizing resources and deploying them and such a core activity of the bank should *prima facie* have a surplus over the operative expenses even without taking into account income from non-funded operations or ancillary services offered by banks. Often, it is found that chronic loss making banks have deficit spread at this stage itself.

Non-interest Income

This is becoming equally important source in modern banking with many banks trying to ward off the threat of disintermediation by diversifying their activities within the ambit of the Banking Regulation Act. The main sources of such income are (i) fees for agency activities like collection of local or outstation bills of exchange, (ii) commission on non-fund based commitments involving contingency risk for issuing performance guarantees, letters of credit, underwriting, etc., on behalf of clients, (iii) fees for remittance of funds through bank drafts, pay orders, mail transfers, telegraphic, or electronic messages, etc., (iv) rent for lockers and safe custody of articles, shares, securities, etc., (v) net profit out of trading in securities, (vi) net income from leasing activities, (vii) net profit on foreign exchange transactions, (viii) profit on sale of assets, and (ix) miscellaneous income.

Total Income

It is the sum total of interest income (S.No.1) and non-interest income (S.No. 6).

Burden

While working out the surplus or deficit of spread at S.No. (5) we have taken the spread net of operative expenses. But the operating expenses are incurred not only for carrying out the funded operations but also the non-funded operations. Thus, to arrive at the net operating expenses incurred to earn the spread, we deduct the non-interest income from non-interest expenses. The resultant operating expenses net of non-interest income is termed as 'Burden'. Banks with higher burden are considered to be operationally less efficient in their funded operations as it is an indicator of net operational expenditure incurred to mobilize a given level of resources and at the same time deploying them efficiently and profitably.

Operating Profit

The interest spread net of burden is the gross profit arising out of both funded and non-funded operations. At this stage, the bank has to compute the income tax liability. It can be observed that the operating profit can be computed in many other ways. For example, we can obtain it by subtracting the operative expenses (Sr. No.4) from the total of spread (Sr. No.3) and non-interest income (Sr. No. 6). It can also be obtained by subtracting interest (Sr. No.2) and non-interest expenditure (Sr. No. 4) from total income (Sr. No. 7).

Provisions and Contingencies

This covers the mandatory provisions required to be provided for such as taxes, provisions for non-performing assets like loans and depreciation of investments and other such contingencies. Provisions towards non-performing assets to the extent written-off can be deducted from operating profit to compute the tax liability. In other words, provisions used for write-off of assets can be treated as tax deductible expenses.

Total Expenditure

It is the sum total of interest expenditure (Sr.No. 2), operational expenditure (Sr. No. 4) and provisions and contingencies (Sr. No. 10).

Net Profit

The operating profit net of provisions and contingencies is the net profit. It is the net profit out of which appropriations are made towards transfer to statutory and other reserves, dividend payment, etc., the balance being carried forward as surplus to balance sheet.

Cost and Yield Parameters (Part II of the Framework)

Having assessed the profit and profitability in the first part of the framework, it is essential to know the average rate of interest paid on deposits and the rate of interest earned on the investments and advances as indicated in Table 3 which gives the format (II) of cost and yield coefficients.

Table 3 : Profitability Format II : Cost and Yield Coefficients of Bank

(For the Qtr/Hly/Year-ending.......)

Sr.No.		Parameter	Interest Amount Budgeted	Interest Amount Actual	Avg.Interest Rate(%) Budgeted	Avg.Interest Rate(%) Actual
13)		Interest Cost of Average Deposits (of which)				
	a)	Current Deposits				
	b)	Savings Deposits				
	c)	Term Deposit (Of which)				
	i)	Scheme x				
	ii)	Scheme y				
	iii)	Scheme z				
	iv)	....				
14)		Interest Cost of Average Borrowings (of which)				
	a)	From Inter-office through HO				
	b)	From RBI (Refinance)				
	c)	From NABARD (Refinance)				
	d)	From SIDBI (Refinance)				
	e)	From other financial institutions				
	f)	From Call money market				
	g)	From inter bank				
15)		Interest yield on Avg. Advances (by delivery style or segment-wise or scheme wise) (of which)				
	a)	From cash credit				
	b)	From over draft				
	c)	From demand loan				
	d)	From bill finance				
	e)	From Term loans (of which)				
	i)	From short term				
	ii)	From medium term				
	iii)	From long term				
	f)	Segment-wise (Of which)				
	i)	Corporate sector				
	ii)	Small Scale Sector				
	iii)	Agriculture				
	iv)	Small Business				
	v)	Personal Segment				
	vi)	....				
	g)	Sector-wise (of which)				
	i)	Public Sector				
	ii)	Priority Sector				
	iii)	Industrial Sector				
	iv)	Service Sector				
	v)	Agriculture				
	vi)	....				

Table 3 Contd.

Sr.No.	Parameter	Interest Amount Budgeted	Interest Amount Actual	Avg.Interest Rate(%) Budgeted	Avg.Interest Rate(%) Actual
16)	Interest yield from Average investments				
a)	From inter office (H.O.)				
b)	From SLR				
c)	From Non-SLR				
d)	Call money market				
e)	Inter-bank				
f)	RBI (CRR)				

Rate of Interest Paid and Earned on Funds

From the above format, it is clear that while arriving at the interest cost as interest bearing liabilities like deposits and borrowings one should compute the rate of interest during a specific period with reference to the average funds available during the corresponding period which becomes more authentic indicator. Otherwise, considering only year-end deposits or deposits at the end of a quarter or half year will distort the cost indicators. Similarly, while computing the rate of interest earned, average advances or investments deployed during the year or half year or quarter, as the case may be, has to be taken into account to get authentic or accurate indicative yields. Another distortion likely to emerge in this context is that the advances should be gross figures and not net of provisions as normally reported in the published final accounts of the banks. In the above framework, some indicative sub-heads are also given under each head of deposits, borrowings, advances and investments. The sub-headwise cost and yield figures may not be available in the published final accounts of the bank. But the individual profit centre will be able to extract from its subsidiary books the relevant figures and compute the coefficients. All the above indicators depict how economically the funds are mobilized and deployed by the bank in the market.

Return to Share Holders (Part III of the Framework)

Part III of the framework depicts the return to the shareholders of the bank, besides the leveraging or utilization ratios and turnover indicators. The important and normally used indicators in this regard are depicted in Table 4 which provides the format (III) and the underlying concept and utility are explained thereafter.

ROA

Return on average assets is an important and universally used indicator across the globe which reveals the ultimate performance of the bank in terms of net profit per a given level of average volume of assets used during a given period.

ROE

The net profit in relation to equity during a given period is what the equity investors will be always watching eagerly. It can be expressed in percentage terms (ROE) or per face value of every scrip (EPS). The

Table 4 : Profitability Format III : Return to Share Holders for the Year ended........

S.No.		Parameter	Formula	Budgeted	Actual
17)		Return on Average Assets (ROA) (%)	Net profit during a specified period ____________X 100 Average working funds during corresponding period		
18)	a)	Return on Average Equity (ROE) (%)	Net Profit during the specified period ____________X 100		
	b)	Earning per share (EPS) (Rs.)	Net Profit during the year ____________ Number of shares		
	c)	Return on Average Net Worth (%)	Net profit during a specified period ____________X 100 Average Equity plus Average Reserves during the corresponding period		
19)		Book value of share	(Equity + Free Reserves) ____________ Number of shares		
20)		(P/E) Multiple	Market price of share ____________ Earning per share		
21)		Profit Margin (PM) (%)	Net profit during a period ____________X 100 Total income during corresponding period		
22)		Asset Utilization Factor (AUF) (%)	Total income during a period ____________X 100 Average assets during the corresponding period		
23)		Proportion of Interest Bearing Liabilities (Rs)	Total interest bearing liabilities ____________X 100 Total funded liabilities		

Table 4 Contd.

S.No.	Parameter	Formula	Budgeted	Actual
24)	Interest bearing assets (Rs)	Total interest bearing assets / Total funded assets X 100		
25)	Capital adequacy ratio (%)	(Tier I + Tier II capital) / Risk weighted funded and non-funded assets or exposures X 100		
26)	Credit Deposit Ratio (%)	Average advances during a period / Average deposits during the same period X 100		
27)	Investments Deposit Ratio (%)	Average Investments / Average Deposits X 100		

return to share-holders can be viewed in terms of net worth also (RONW).

P/E Multiple

Such ratio will be useful when the scrip is already quoted or while arriving at the expected price in the market.

Profit Margin (PM)

This is a ratio of net profit to total income indicating the margin of profit for every rupee of total income earned by the bank.

Asset Utilization Factor (AUF)

This is nothing but the level of income earned for a given level of assets during a specific period indicating the quality of utilization of the assets created in the normal course of business. Presence of non-earning and non-performing assets beyond a reasonable level will pull down this factor adversely.

Credit Deposit Ratio (CD) and Investment Deposit Ratio (ID)

Traditionally, these ratios were being used by banks to indicate the level of conversion of the resources mobilized into productive assets and sub-serving the cause of economic development in the respective jurisdiction of the bank.

Proportion of Interest Bearing Liabilities and Assets

It is always strategically useful to know the proportion of interest bearing funds the bank has in relation to the total liabilities, and endeavour to reduce the ratio so as to reduce the cost of funds. Similarly, on the assets side the higher the proportion of interest bearing assets to the total assets of the bank, the better will be the income and profit position of the bank. Conversely, the proportion of non-interest bearing liabilities as well as assets can be ascertained.

Capital Adequacy Ratio

This is an important prudential stipulation that the banks in India are subject to since April 1992 by the Reserve Bank of India. It is an indicator of the relation between the risk weighted assets on the one hand and the back-up of tangible net worth the bank has on the other, of course, after making specific provisions against the weaknesses identified in the assets of the bank. The tangible net worth consists of core capital (Tier I) and supplementary capital (Tier II). The latter is in the form of (i) undisclosed free reserves, (ii) revaluation reserves, (iii) general provisions, (iv) hybrid capital like conversion instruments, and (v) subordinated debt. Tier II capital shall never exceed the Tier I capital and the latter shall always be at least half of the total capital. Risk weighted assets are arrived at after weighing the funded as well as non-funded assets as per the weightage pattern prescribed by the Reserve Bank of India from time to time. At present, the minimum stipulated ratio is 8 per cent of capital to risk weighted assets. The entire model prescribed by the Reserve Bank of India is in tune with the 'capital accord' released by the Bank for International Settlements (BIS), BASLE in July 1988.

Income and Expenditure Composition

Another dimension of the framework of the profitability analysis is composition of the income and expenditure of the bank. All the items and sub-items can be expressed as proportion of total income and pie charts, if possible, can be drawn accordingly.

APPLICATION OF THE FRAMEWORK FOR BANKING SYSTEM IN INDIA

The above framework as applied to the Indian banking system and illustrated for the years 1994-95 and 1995-96 is presented in Tables 5 to 8. The absolute level of business, income, expenditure and other related parameters are given in Annexures I and II for reference purpose. The salient features of such application and analysis are furnished as follows.

Market Share of Business Profits

A careful market share analysis of what is presented in Annexures I and II reveals that public sector banks (PSBs) commanded 85-87 per cent of working funds of the banking system in 1994-96 while the balance 13-15 per cent is shared by private sector Indian banks (6-7 per cent) and foreign banks (7-8 per cent). When it comes to operating profit PSBs command three-fourths of it and the balance one-fourth going to private sector banks (10 per cent) and foreign banks (15 per cent). Out of the total net profit, public sector banks got only half of it (53 per cent) in 1994-95 and the other half having been shared by private Indian banks (17 per cent) and foreign banks (30 per cent). The position worsened in 1995-96 with public sector as a group incurring net loss of Rs. 371 crores while private sector banks registering net profit of Rs. 541 crores and foreign banks Rs. 858 crores. In other words, the proportionalities of market shares indicate that profit1able utilization of funds by the public sector banks as a group was poor when compared to the private and foreign banks during the two year period ending March 1996.

Income and Expenditure Composition

As can be seen from Table 5, for every Rs. 100 of income, the banks get Rs. 86 from funded operations and the remaining Rs. 14 are from non-funded or fee based services. Only foreign banks differ a bit with others in this regard as nearly one-fifth of their income being non-interest source and four-fifths being interest based.

The expenditure pattern of all banks in 1995-96 as worked out in Table 5 shows that out of every 100 rupees of income, Rs. 57 go towards interest payment to depositors and other investors, Rs.19 towards wage bill, Rs.8 for non-wage operating expenses and a whopping Rs. 14 going for provisions to take care weaknesses in assets and other such contingencies. Finally, only a rupee was left as profit margin. The position of profit margins at Rs. 4 is a redeeming feature in 1994-95 mostly due to relatively less provisioning needs.

The interest expenditure payout is not differing much among the three groups of banks under comparison in Table 5, though foreign banks, at 46 per cent in 1994-95 and at 52 per cent in 1995-96, have a lesser interest payment outgo than the other two groups. Private sector Indian banks have double digit profit margins at 10-11 per cent which is more on account of saving on wage bill and lesser provision requirements when compared to the public sector group. However, foreign banks enjoy their double digit profit margins (11-13 per cent) mostly on account of their relatively lower proportion of operating expenses (22 per cent) besides lower interest burden as seen earlier when compared to public sector banks. Interestingly, among the three groups of banks shown in Table 5, foreign banks rank the highest for provisions and other operating expenses while they rank lower than the other two groups when it comes to interest expenditure and wage bill.

To sum up, during 1994-96 public sector banks have lowest profit margins (-0.7 to 2.6 per cent) while private and foreign banks have the same at 10.2 to 13.5 per cent For private sector banks, this can be traced to relatively lower operational expenses and provision requirements. However, for foreign banks the higher profit margin is on account of lower proportions

Table 5 : Income and Expenditure Composition of Banking System in India (1994-96)

(As % to Total Income)

Sr. No.	Parameter	1994-95 PSBs	1994-95 Private	1994-95 Foreign	1994-95 ASCBs	1995-96 PSBs	1995-96 Private	1995-96 Foreign	1995-96 ASCBs
1.	Interest Income	86.7	85.9	80.3	86.1	86.9	85.5	81.6	86.3
2.	Non-Interest Income	13.3	14.1	19.7	13.9	13.1	14.5	18.4	13.7
3.	Total Income	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0
4.	Interest Expenditure	57.2	56.3	45.8	56.1	57.6	58.8	52.3	57.3
5.	Wage Bill	20.2	15.0	7.3	18.7	20.8	12.3	7.7	18.8
6.	Other Operating Expenses	8.3	7.7	15.0	8.9	7.5	9.1	14.1	8.2
7.	Provisions & Contingencies	11.7	9.9	18.4	12.2	14.8	9.6	14.6	14.4
8.	Net Profit (Profit Margin)	2.6	11.1	13.5	4.1	-0.7	10.2	11.3	1.3

of income spent towards interest payments besides lower wage bill. Public sector banks on the other hand are recording either net losses or marginal profits.

Growth of Business

As shown in Table 6, during the year 1995-96, the average business of all banks, expressed in terms of average working funds, grew by 17.4 per cent while the deposits grew at 14.4 per cent and the advances grew at 22.4 per cent during the year. The growth of private sector banks was impressive at 42.5 per cent which was mainly due to the new private sector banks which zoomed into the market with high-tech advantage during 1995-96.

However, the above impressive business growth did not result in commensurate growth in profits. The public sector banks registered net losses during 1995-96 mainly on account of higher need for provision towards depreciation in their investments. The profit growth rate of private sector banks at an impressive 51 per cent was mainly on account of the new entrants. The growth rate of net-profit for foreign banks was at moderate 9 per cent only.

The growth rate of most of the parameters, whether on income side, or expenditure side for all the banks in 1995-96 was roughly around 25 per cent mark though the same was at almost double this rate for private sector banks. Such growth rate resulted in nearly 22 percent growth in operating profits. But the provision requirements, mainly triggered on account of higher depreciation of investment, grew at nearly 50 per cent resulting in negative growth in net profits. Interestingly, the growth rate in provisions for foreign banks is very low at 3.5 per cent indicating that they had already made adequate provisions for risks in assets unlike Indian banks.

During 1995-96, for all the banks, on an average, the income grew at 26.2 per cent while the expenditure grew at 28.7 per cent. The growth of interest spread for banks in 1995-96 was 22.5 per cent. Interestingly the growth rate of spread for private banks (49 per cent) was double the rate for public sector banks (22 per cent) and the same for foreign banks at 11 per cent was almost half of the PSB growth rate.

Owing to payment of arrears on account of new wage award, etc., the wage bill of all banks grew at 27.2 per cent in 1995-96. It is interesting to note that the growth of expenditure in other operating expenses was at 22.8 per cent for foreign banks and a whopping 94 per cent for private banks, possibly due to new private sector banks establishing themselves with huge investments in technology. PSBs registered only 10.6 per cent in increase in this regard.

Profitability of Banking System (1994-96)

The framework of profitability analysis as applied to the performance of the banking system (91 scheduled commercial banks excluding the Regional Rural Banks — RRBs) during 1994-95 and 1995-96 is depicted in Tables 7 and 8. The salient features of such analysis are given hereunder.

Interest Spread

The interest spread of all the banks went up from 3.26 per cent of their average working funds in 1994-95 to 3.41 per cent in 1995-96. The spreads of foreign banks are the highest among the three groups of banks as depicted in Table 7, while the spreads of foreign banks came down from

Table 6 : Growth Rate of Various Parameters of Banking System in India (1995-96)

(% Growth over previous year)

Sr. No.	Parameter	1995-96 PSBs	Private	Foreign	ASCBs
1.	Interest Income	23.2	64.3	32.5	26.5
2.	Non-Interest Income	21.3	68.8	21.7	24.4
3.	a) Total Income	22.9	65.0	30.4	26.2
	b) Total Expenditure	27.0	66.7	33.7	29.9
4.	Interest Spread	22.0	48.9	10.9	22.5
5.	Interest Expenditure	23.8	72.4	48.9	28.7
6.	Operational Expenses (of which)	21.8	55.5	27.6	23.9
	a) Wage Bill	26.4	35.5	37.5	27.2
	b) Other Operational Expenses	10.6	94.4	22.8	17.0
7.	Operating Profit	21.8	55.2	5.9	21.6
8.	Provisions & Contingencies	55.7	59.7	3.5	48.7
9.	Net Profit	(-)133.3	51.1	9.2	(-)59.3
10.	Average Working Funds	15.5	42.5	20.0	17.4
11.	Average Deposits	13.4	34.6	8.8	14.4
12.	Average Borrowing	58.2	125.6	108.7	69.5
13.	Average Advances	18.7	52.8	41.0	22.4
14.	Average Investments	10.5	27.3	(-)10.6	9.7

4.52 per cent in 1994-95 to 4.18 per cent in 1995-96, the trend was reverse for Indian banks both in public and private sector registering marginal increases during the same period.

The strong point of public sector banks is their lower interest cost of funds at 6.11 to 6.55 per cent during 1994-96. However they suffer on interest income front with a return of only 9.25 per cent to 9.86 per cent resulting in lower interest spread at 3.14 per cent to 3.31 per cent. Private Indian banks suffer heavily on account of high interest cost of funds (at 6.74 per cent to 8.16 per cent during 1994-96) and compensate the same with higher interest rate of income on funds (at 10.28 per cent to 11.85 per cent) to register impressive interest margins of 3.54 per cent to 3.69 per cent. Foreign banks have advantage on both the fronts and hence command impressive margins as mentioned above.

Operating Expenses

Table 5 indicates that for all the banks the operating expenses went up from Rs. 3.01 in 1994-95 to Rs. 3.18 for every hundred rupees of average working funds. Relatively such expenses are at lower level for private and foreign banks when compared to public sector banks. In other words, the operational efficiency of private and foreign banks is better than that of public sector banks as they are able to mobilize a given level of working funds at a relatively lower cost of operations.

Wage bill constitutes major part of the operating expenses for the banks in India both in public and private sector. For all the banks during 1994-95, nearly Rs. 2 out of every three were spent on wages while the same is Rs. 2.21 out of Rs. 3.18 during 1995-96. In other words, roughly two-thirds of operating expenses of banks in India go to meet salaries of employees. The jump in operational expenses during 1995-96 was only on account of wage bill while the non-wage bill remained at the same proportion (0.97 per cent).

For foreign banks, the wage bill is lower than non-wage bill. In 1994-95, to service every Rs. 100 of working funds foreign banks spent on wages only Rs. 0.95 when compared to Rs. 1.79 spent by private Indian banks and Rs. 2.15 by public sector banks. In other words, foreign banks spend two-thirds of their operating expenses towards non-wage service costs such as technology cost, infrastructure facilities, good premises, layout, etc. while their Indian counterparts spend only one-third towards such costs which are more related to customer need and convenience. One may even conclude that employee oriented operational costs outweigh customer oriented service costs in Indian banks — both public and private sector. This also confirms the fact that Indian banks are still predominantly manual-driven while foreign banks are technology driven.

Surplus Spread

Without taking into account the non-interest income, we can weigh the interest margin net of operating costs as indicated by surplus (+) or deficit spread (-). Fortunately, during the period under comparison in Table 7, the spread was more than the operating costs by 24 basis points for all the banks with PSBs by 10 basis points, private banks by 78 basis points, and foreign banks by an impressive 135 basis points, on an average, for the two years ending March 1996. One can notice that the operating position of public sector banks is almost at break-even point (zero profit) without taking into account the non-interest income, which when taken into account becomes more or less the operating profit.

Burden

The burden, which is nothing but operating costs net of non-interest income, of all banks is around 1.50 per cent of average working funds during 1994-96. This is the highest for PSBs at around 1.66 per cent and the lowest for foreign banks at 0.41 per

Table 7 : Profitability of Banking System in India (1994-96)

Sr. No.	Parameter	1994-95 PSBs	1994-95 Private	1994-95 Foreign	1994-95 ASCBs	1995-96 PSBs	1995-96 Private	1995-96 Foreign	1995-96 ASCBs
1.	Interest income	9.25	10.28	10.53	9.40	9.86	11.85	11.63	10.14
2.	Interest Expenditure	6.11	6.74	6.01	6.14	6.55	8.16	7.45	6.73
3.	Interest spreadl	3.14	3.54	4.52	3.26	3.31	3.69	4.18	3.41
4.	Operating Expenses (of which)	3.04	2.71	2.91	3.01	3.20	2.96	3.10	3.18
	a) wage bill	2.15	1.79	0.95	2.04	2.36	1.70	1.09	2.21
	b) Other Operating Expenses	0.89	0.92	1.96	0.97	0.84	1.26	2.01	0.97
5.	Non-interest/income	1.42	1.69	2.58	1.52	1.49	2.00	2.61	1.61
6.	Surplus (+)))spread Deficit (-))	0.10	0.83	1.61	0.25	0.11	0.73	1.08	0.23
7.	Burden	1.62	1.02	0.33	1.49	1.71	0.96	0.49	1.57
8.	Operating profit	1.52	2.52	4.19	1.77	1.60	2.73	3.69	1.84
9.	Provisions & Contingencies	1.25	1.18	2.42	1.33	1.68	1.33	2.08	1.69
10.	Net Profit (ROA)	0.27	1.34	1.77	0.44	(-)0.08	1.40	1.61	0.15
11.	Return on Equity or EPS (%)	8.94	228.03	247.84	16.34	(-)2.57	68.48	127.07	5.45
12.	Return on Net Worth (RONW) (%)	4.95	37.80	20.17	7.92	(-)1.36	23.55	16.05	2.54
13.	Book value of 10 Rupee Share (Rs.)	18.05	60.32	122.86	20.64	18.89	29.08	79.15	21.48

Note : (i) Parameters at S.Nos. 1 to 10 are expressed as percentage to average working funds;
(ii) Basic source of data is *IBA Bulletin* (1997).

Table 8 : Interest Cost and Yield Parameters of Banks in India (1994-96)

Sr. No.	Parameter	1994-95 PSBs	1994-95 Private	1994-95 Foreign	1994-95 ASCBs	1995-96 PSBs	1995-96 Private	1995-96 Foreign	1995-96 ASCBs
1.	Interest cost of Aerage Deposits	6.88	7.09	5.93	6.83	7.23	8.55	7,36	7.34
2.	Interest cost of Average Borrowings	16.17	13.96	18.94	16.44	16.81	16.91	17.22	16.89
3.	Interest cost on Average Working Funds	6.11	6.74	6.01	6.14	6.55	8.16	7.45	6.73
4.	Interest Yield on Average CRR & Inter-Bank Lending	5.14	4.01	4.38	5.01	4.65	4.76	4.74	4.66
5.	Interest Yield on Average Investments	11.45	11.96	12.18	11.54	11.48	13.11	12.63	11.65
6.	Interest Yield on Average Advances	11.37	13.26	14.55	11.72	13.04	15.65	16.74	13.55
7.	Interest Income on Average Working Funds	9.25	10.28	10.53	9.40	9.86	11.85	11.63	10.14
8.	Non-Interest Income on Average Working Funds	1.42	1.69	2.58	1.52	1.49	2.00	2.61	1.61
9.	Total Income on Average Working Funds	10.67	11.97	13.11	10.92	11.35	13.85	13.24	11.75

Note : i) Basic source of data is *IBA Bulletin* (1997); (ii) All figures are expressed as percentage to the respective average liability or asset in the denominator.

cent, the private sector remaining in between at almost 1 per cent level. We may recall that the higher the burden, the lower will the operational efficiency of a bank for a given level of business.

Operating and Net Profits

The profit of commercial banks, before provisions for tax, risk in assets and other such contingencies, is around Rs. 1.80 for every Rs. 100 of average working funds during the two year period ending March 1996. The average operating profit during the two years is the highest for foreign banks at 3.94 per cent, the lowest being for PSBs at 1.56 per cent and again the private sector remaining in between the above two groups at 2.63 per cent.

The provision levels, surprisingly, were the highest for foreign banks at more than 2 per cent level in both 1994-95 and 1995-96. Does it indicate that the business risk levels, as indicated by provisions, are directly related to profitability levels too? Further, the two year average provision levels at around 1.50 per cent mark for PSBs and at 1.20 per cent mark for private sector banks are also at relatively high levels, especially keeping in view their operating profit levels. There may be two reasons for this. The first may be due to the fact that the non-performing advances of PSBs at 17.3 per cent (RBI, 1995-96) of their gross advances, as on March 1996, is still a tall order necessitating heavy provision levels. Second, the introduction of the system of mark-to-market evaluation of at least 50 per cent of their investment, as prescribed by the Reserve Bank of India, has pushed up the provision 'for depreciation of investments. Even when the securities are not quoted in the market the banks were asked to provide for any depreciation based on what is called YIELD-TO-MATURITY (YTM) basis.

In spite of marginal increase in interest margin and non-interest income, the ROA level for all the banks has come down to 0.15 per cent in 1995-96 from 0.44 per cent in 1994-95 mainly on account of higher provision levels besides marginal increase in burden level. ROA level was negative for PSBs in 1995-96 though it was 0.27 per cent in 1994-95. The private and foreign banks with ROA levels of 1.3 to 1.7 per cent are far ahead of public sector group in this regard indicating, their overall efficiency.

Share Holders' Value and Returns

Foreign banks rewarded their share holders by registering a return of Rs. 248 in 1994-95 and Rs. 127 in 1995-96 for every Rs. 100 of equity held by the shareholders. Private banks, though a bit volatile in this regard offered similar returns at ROE of 228 per cent in 1994-95 and 68 per cent in the subsequent year. This is perhaps mainly due to infusion of capital by new entrants at a minimum prescribed start-up levels of Rs. 100 crores for each bank. However, PSBs offered only 9 per cent in 1994-95 and a negative return of 2.6 per cent in 1995-96. The relevant composite picture for all the banks was ROE of 16.34 per cent in 1994-95 which went down to 5.45 per cent in the subsequent year under review. Return on net worth also showed similar trends for these three groups of banks.

The book value of a ten rupee share for public sector banks is almost Rs. 19 as on March 1996, thanks to the capital infusion by the Government of India, especially for the weaker banks. In spite of good track record of profit, the book value of private sector banks came down from Rs. 60 in 1994-95 to Rs. 29 in 1995-96. This is mainly due to entry of new private sector banks each with minimum capital of Rs. 100 crores as per the amended stipulation in the Banking Regulation Act, 1949. Similar declining trend was observed for foreign banks, though the book value is almost 8 times the face value as on March 1996.

Cost and Yield Coefficients

The average rate of interest paid by the banks on their deposits and borrowings alongwith rate of interest yield on the deployment of these funds within the ambit of prudential regulatory norms, are worked out in Table 8. The salient features of such analysis are presented below:

Interest Cost

Public sector banks had always been at less than the optimal levels in most of the profitability parameters so far analyzed in Table 7 earlier. However, when it comes to interest paid on deposits, the public sector banks appear to have distinct advantage of mobilizing deposits at relatively cheaper interest rate. During 1994-96, they paid interest on deposits at an average rate of 6.88 to 7.23 per cent, the lowest among the three groups of banks under comparison except foreign banks at 5.93 per cent in 1994-95. However, foreign banks had to shell out for the same at 7.36 per cent in 1995-96. Private sector banks appear to be mobilizing the costliest deposits by paying interest at 7.09 to 8.55 per cent during 1994-96. When it comes to borrowings, as all of them tap the same closed market, there is not much of variation between various groups of banks with interest rate hovering around 16-17 per cent during 1994-96. Foreign banks appear to be borrowing at slightly higher rate than that of Indian banks.

Yield on Advances

The main source of interest income for banks is what they charge on advances to their clients and investments made both in statutory and non-statutory investments. During 1994-95, the interest yield on average advances (net of provisions) is 11.72 per cent for all the banks with PSBs registering the lowest at 11.37 per cent, private banks at 13.26 per cent and foreign banks the highest at 14.55 per cent. The yields have gone up to 13.55 per cent during 1995-96 for all the banks. During 1995-96 foreign banks registered the highest yield at 16.74 per cent followed by private Indian banks at 15.65 per cent and the public sector banks earning the lowest at 13.04 per cent.

Interest Yield on Investments

The yield on investment for all the banks is around 11.60 per cent mark during 1994-96 *a la* bond rate. PSBs had it around 11.46 per cent, with private banks and foreign banks hovering around 12.5 per cent mark. The yield on CRR and inter-bank transactions is around 4.66 per cent to 5 per cent for all these banks during 1994-96 though incremental CRR balances do not yield any interest in the post reform period.

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