Transfer price mechanism for branch evaluation – a dynamic approach

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Of late, there has been a marked shift in the measures used for evaluating the bank branches. From deposit mobilization criterion the emphasis is now being turned on to the profits made by the bank branches. When the concept of 'profit centre' is being applied the significance of the methodology involved in ascertaining the profits gains prominence for the management control system. Transfer price, in the context of banking sector, is the interest charged by the surplus funds branch to the deficit funds branch on the transferred funds. Though branches are identified to be of deposit intensive, advances intensive and ancillary business intensive for administrative convenience there are other material factors like the location, size, and the nature of clientele that impinges on the performance of the branches. This paper reviews the current practices of the banking sector in this context and proposes a model that helps in ascertaining the transfer price that is appropriate for the given conditions.

Performance evaluation is an integral part of all organizations and it is more so with regard to financial institutions like Banks. Banking in India started as unitary banking in the pre-Independence era. It had witnessed tremendous transformation both in terms of quantity and quality in the wake of nationalization that paved the way for Branch Banking.

Profit is the most commonly acceptable measure for evaluation of Branch performance. To what extent profit is a good indicator of viability of the branches depends upon how independent the branches are in the commercial sense. As the branches of a Bank, in reality, are not truly and entirely independent commercial units, it is difficult to determine the real profitability of such branches with the help of existing systems that are less transparent, less accurate and having weak linkage with the overall costing and pricing structure of business/products.

In the light of the above, the present study probes into various modalities of Transfer Pricing Systems and suggests a suitable mechanism so as to reflect the true profitability, productivity and efficiency of the Branches.

Evaluation of profitability and assessment of efficiency under Unitary Banking were relatively easy as both the resource mobilization and the deployment of funds are with the same unit. Though during the subsequent years limited expansion of Branches took place the branches were limited for resources mobilization only while Head Office was deploying these resources. The expansion of the banking system in the post-nationalization phase has changed the entire gamut of evaluation process since the banks are exposed to multi-location and multi-service concept. In the process, the bank branches are identified into:

Deposit oriented: Majority of bank branches comes under this category. Though 80% of branches are acting as deposit-pooling centers all branches are not uniform in terms of deposit mix. It is a fact that the deposit mix is favourable (low cost deposits) with respect to Metro/Urban branches where as depositors of Rural and Semi-urban branches tend to keep their deposits in Term deposits. This has effect on branch profitability.

Advance oriented: Though the branches are independent units in terms of accepting deposits and lending funds, the CD ratio is below 25% in many of the bank branches. It speaks that the lending activity is

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considered as centralized activity and the lending of top 10% branches constitutes 80% of lending. However, all lending branches are not uniform in terms of yield on advances since it depends on sectorial deployment and quality of lending. Obviously, the yield on advances at Metro/Urban branches is higher when compared to Rural and Semi-Urban branches.

Ancillary business oriented: Of late ancillary business has attained utmost importance and all branches are eying on the new avenues irrespective of their size. In reality the level of ancillary income of bank branch depends on the level of fund and non-fund based business since no customer approaches for ancillary service alone. However, there is much for Metro and Urban branches to improve ancillary income. The profit of the above branches crucially depends on ancillary income.

Though branches are classified into the above three categories, in reality, all branches are undertaking the deposit and advance activities and transferring/borrowing the balance to/ from Head Office. Depending upon the type of Branch i.e. Surplus or Deficit, Head Office compensates the branches for transferring surplus funds or charges deficit branches at a notional price. These notional prices are known as Transfer Price and the mechanism by which these prices are fixed is known as Transfer Price Mechanism (TPM).

Branches are strategic outfits to achieve the broad corporate goals of the Bank since Indian Banks have been adopting Branch Banking concept. The business mix of the branches is not uniform as the units are functioning under varied environment. Branches are either deposit oriented or advance oriented depending upon the location and environment. In the process, majority of the branches act as resource pooling centres and few centres work as deployment wings of the Bank. With a view to balancing the branch requirements, funds are transferred to the resource-deficit branches from resource-surplus branches through Head Office.

Though the performance of banks is measured in terms of PROFIT there is no specific policy to measure the profit of the Branch. Since there are no guidelines either from RBI or IBA with regard to fixing of transfer price, each individual bank works out their own policy to arrive at favourable results. In this context, pricing of funds (surplus or deficit) has attained utmost importance. In order to have a scientific system, the interest rates to be charged or recovered are to be arrived basing on cost of funds plus servicing cost. Besides loading the interest and servicing cost there is a need to extend subsidies to those branches incurring losses on account of corporate compulsions.

Objectives:

Given this scenario it is pertinent to 1. examine the current practices of the Banks in determining the Transfer Price; 2. critically evaluate the utility of the TPM in ascertaining the profits of various branches and evaluating them on that basis; and 3. have a relook or explore, if necessary, an improved version of TPM that could facilitate an effective evaluation of branches impounding the environmental and branch specific factors. This paper is an attempt in this direction.

Significance of 'TPM' in bank branch evaluation:

It is time for the Banks as a part of their management control system to evolve the parameters for performance evaluation and develop the methodology for measuring the performance so as identify the viability or otherwise of the units and to initiate necessary steps either to improve the performance of the units or to relocate/close the unviable units.

TPM is a tool that can be handy for the Banks to achieve the above task. The primary objective of an effective Transfer Price Mechanism (TPM) is to enable the bank to work out a close approximation of profit/loss of the branches on realistic and rational basis.

The concept of TPM is not new to Banks in India but the application varies from bank to bank and it is being used for different purposes. It attained importance very recently in the light of implementation of prudential accounting norms in Banks. The concept of profit and profitability of Banks is gaining momentum and each Bank is taking steps to improve the profitability of the branches. To know the profit of the branches, Bank has to have a proper tool to measure the profit.

There is no uniformity with regard to application of TPM by the Banks both in regulated and deregulated environment. It is interesting to note that there has never been a directive or suggestion either from IBA or RBI on the above subject. Accordingly each bank tries to follow any one of the three TPM systems with its own modifications in the form of various subsidies/ concessions to suit its requirement.

The Branch level profit has assumed utmost importance and more emphasis is being given for micro-level profit planning. Bank is interested in increase of profit on one hand and would like ensuring that all branches are profit-making centers. Therefore, focus is on the turnaround of loss-making branches.

In such a situation, logically, reduction in the number of loss-making branches should be positively correlated to the rise in profit. The real life case, however, presents a sharply opposite picture. Reduction in amount of loss and number of loss-making branches very often does not lead to the rise in profit at the corporate level. In a way, branch level profit appears to have no linkage with bank level profit. The moot question is whether the branches showing loss under the present system of TPM are really less efficient branches? This opens up the entire debate whether we need to have a TPM, which is radically different from the existing ones.

The age-old system of TPM as prevailing in mainstream Indian Banks has now lost much of its relevance mainly due to the fact that the banking environment has radically altered from what it was earlier. Some of the most prominent changes are:

- Banking in the pre-nationalization phase was a highly centralized function. Branches were used as resource pooling centers where as Head Office worked as deployment wing of the Bank. *As against this, functions are now decentralized to branch level to a major extent*.
- Interest rates were largely administered as also the deployment pattern was highly regulated. *Deregulation of interest rates is the key element in the post-reform banking scenario*.
- Uni-directional focus on business growth has been shifted to *multidirectional activities*.

The imperatives of the changed environment have brought the age-old concept of TPM into critical scrutiny. The profit of the Banks/Branches has come under severe pressure due to:

- Decline in Interest Spread due to cutthroat competition.
- Implementation of Prudential Accounting Norms and
- High expectations of Customers as well as Owners.

Review of the findings of a few Committees

RBI committee - 1968:

The issue of uniform transfer price has been engaging the attention of all concerned. The first attempt was made by a committee constituted by RBI in January 1968 to study the working of loss incurring branches of SBI and also suggest a suitable formula for the determination of transfer prices. SBI was following two different interest rates viz., Lending rate and Borrowing rate. The entire deposits of the branches are treated as funds lent to HO and advances as funds borrowed from HO. The lending rate is the average cost of deposits of the bank plus a **differential** and the borrowing rate is average yield on advance of the bank minus **differential**. The differential is a percentage arrived at by relating the interest spread minus administrative expenses to the total business of the bank. The system envisages the distribution of interest profit equally between deposits and advances where the cost of servicing of deposits and advances are not equal.

The result was disappointing since majority of the branches shown losses and was far from reality.

Banking Commission - 1969-72:

It had examined the issue and came up with a formula that was based on the earlier committee with slight modifications. The interest rate is arrived at as follows:

Lending Rate= Average cost of deposit plus servicing cost plus profit margin

Borrowing Rate= Average yield on advances minus servicing cost of branch/HO minus profit margin

Working Group on Productivity, Efficiency and Profitability – 1976

The committee devised a new formula for arriving at the Transfer Prices for lending and borrowing separately. The lending rate for deposit should be equal to the cost of lendable funds raised through deposits after adjusting for service charges for managing deposits and advances as also interest tax on income from advances. The average interest yield on lending should be equal to the average interest income on CRR, investments and advances. Similarly the average interest cost on borrowing by branches would be equal to the average cost of lendable funds plus servicing cost of deposits and interest tax on advances. The formula however, excluded administrative expenses of controlling offices for distribution among branches.

Sri. K. Ganeshan report

Mr. Ganeshan was appointed by the Technical Group of IBA to study the adoption of the Uniform Transfer Pricing formula as a means of evaluation of branch profitability. Mr .Ganeshan came out with a TPM model of multiple transfer prices in the form of subsidies and recoveries. The branches are compensated over and above the interest cost on their deposits by attaching weights depending upon relative interest rates on deposits and advances.

Dr. B. Satyamurthy Committee (NIBM) – 1985

The committee was constituted to examine in detail the related issues of branch profitability and evolve a working model for meaningful branch performance evaluation leading to the improvement of the ultimate profit and profitability of the bank as a whole. The committee observed that no single system of TPM was found to be ideal in so far as ascertaining the true picture of branch profitability.

IBA committee – 1997

Indian Banks Association constituted a committee of economists to look into the various aspects of the existing TPM and to suggest improvements in the present system in the year 1997. The committee submitted report in the month of September 1998 and the observations and recommendations are furnished here under:

=> IBA study group has suggested Dual Transfer Pricing System in order to have a simplified TPM.

=> While adopting Dual Transfer Price System it was recommended by IBA to link the rates of compensation to the Maximum deposit rates to lending funds to Head Office and Prime Lending Rate to funds borrowed from Head Office.

=> At the same time the group has recommended to continue cross subsidization as an incentive to the branches incurring losses due to corporate compulsions.

=> Committee opined that ideally the net surplus at Head Office i.e. return on investments (CRR/SLR/ Others) minus administrative expenses of controlling units should be equal to net amount claimed by the branches on HO balances.

=> However, majority of the Banks are passing the Burden beyond operating profit under TPM system.

=> Further they indicated that a distinction has to be made between a branch making accounting loss and a branch intrinsically unviable.

Summary of findings of various committees

TPM is recommended as a tool for banks to evaluate branch performance. Since different systems can provide different transfer prices and different prices can be worked out in the same system, the credibility of the use of absolute profit and loss notionally arrived at with the help of "TPM" as a tool for evaluating the operational efficiency of the branches can always be devoid of perfection.

In a scenario of heterogeneous cost pattern, any attempt to average out cost will, in effect, result in equalization of inefficiency among branches. Therefore, under the system, a highly efficient branch will not be spared from sharing the burden of the inefficient branches.

The suggestion of IBA committee i.e. the net amount claimed by the branches should be equal to income received on investments (CRR/SLR/ Other investments) is more relevant.

Existing TPM models – a review

Based on the various methodologies of TPM, we could identify three different kinds of TPM operating in the industry.

Unitary Transfer Price System:

Under Unitary Transfer Price System, there is only one single rate applied to Head Office balances in branch books irrespective of the fact that such branches are in debit or in credit. The rate is the same for both resource-surplus and resource-deficit branches. For example the funds lent to or borrowed from the Head Office are at 10% p.a.

Dual Transfer Price System

The Dual Transfer Price System advocates two different rates – one for lending to Head Office and another for borrowing from Head Office. Funds lend to Head Office at 10% and borrowed from it are charged 12% p.a.

Multiple Transfer Price System

Under Multiple Transfer Price System different weights are attached to the nominal interest rates of different types of Deposits and Advances.

Example:

1. Subsidy on SB Interest
2. Subsidy on Current Deposits
3. Subsidy on Term Deposits
4. Subsidy on NRE/FCNR Deposits
5. Subsidy on Priority Sector advances
6. Subsidy on DRI advances
7. Penalty on NPAs
8. Penalty on excess cash and bank balances.

Based on the location, nature and size of the branch we have identified 11 types of branches of a bank and applied various TPM models to study the impact on the profit of the Branch and the Bank. The identified branches are as follows:

1. Low cost deposit oriented Metro/Urban branch.
2. High cost deposit oriented Metro/Urban branch.
3. Advance oriented Metro/Urban branch.
4. Advance oriented NPA branch.
5. Deposit oriented Semi-Urban (SU)/Rural branch.
6. Directed lending advance oriented SU/Rural branch.
7. Average typical SU/Rural branch.
8. Ancillary business oriented Metro/Urban branch.
9. Average deposit oriented Rural branch.
10. Average advance oriented Rural branch.
11. Deposit and ancillary business oriented Metro branch.

What follows is a discussion on the implications of the above TPMs on the reported financial result of the branches and the bank? For this analysis the required financial details are presented in Table-1.

Table - 1 :: Financial details under unitary TPM

	Particulars	Amount (Rs.in lakhs)
1.	Deposits	16900
2.	Advances	9620
3.	Investments	7000
4.	Others	280
5.	Interest received on Advances	1064
6.	Interest paid on Deposits	1244
7.	Income on Investments #	770
8.	Other Income	246
9.	Other Expenditure	315
10.	Admn. office exp. & provisions	300
11.	**Profit & Loss**	**221**

11 % yield on investments.

Table - 2 :: Unitary pricing model

Branch	CD/SB Deposits	Term Deposits	Total Deposits	Directed Lending	Other Lending	NPA	Total Adv	Profit /Loss
1.	1600	400	2000	200	600	100	900	112
2.	600	1400	2000	200	600	100	900	42
3.	700	1300	2000	300	2100	300	2700	104
4.	800	1200	2000	400	400	600	1400	-4
5.	300	700	1000	300	200	50	550	16
6.	200	800	1000	800	400	100	1300	14
7.	100	900	1000	200	200	200	600	-13
8.	500	1000	1500	100	400	100	600	70
9.	30	170	200	60	50	10	120	-3
10.	30	170	200	200	70	20	290	-3
11.	1500	2500	4000	50	200	10	260	144
Total	**6460**	**10540**	**16900**	**2810**	**5220**	**1590**	**9620**	**479**

It is assumed that the bank is reimbursing or claiming to/ from the branches @ 10% on the net HO balances.

Out of 11 branches mentioned above 7 branches are earning profits and 4 branches are incurring losses. The net amount claimed by the branches from Head Office is Rs.728 lakhs as against investment income of Rs.770 lakhs. The profit of all branches put together is Rs.478 lakhs as against net profit of Rs.221 lakhs that clearly shows that the distribution of profit of the Bank among the branches depending on their business level is not appropriate. The adoption of unitary transfer price has no logic.

Table - 3 :: Dual pricing model

Branch	CD/SB Deposits	Term Deposits	Total Deposits	Directed Lending	Other Lending	NPA	Total Adv	Profit /Loss
1	1600	400	2000	200	600	100	900	101
2	600	1400	2000	200	600	100	900	31
3	700	1300	2000	300	2100	300	2700	93.5
4	800	1200	2000	400	400	600	1400	-10
5	300	700	1000	300	200	50	550	11.5
6	200	800	1000	800	400	100	1300	9.5
7	100	900	1000	200	200	200	600	-17
8	500	1000	1500	100	400	100	600	61
9	30	170	200	60	50	10	120	-4.2
10	30	170	200	200	70	20	290	-4.75
11	1500	2500	4000	50	200	10	260	106.6
Total	**6460**	**10540**	**16900**	**2810**	**5220**	**1590**	**9620**	**378.15**

It is assumed that the bank is reimbursing @ 9% to the surplus branches and claiming interest from the deficit branches @ 11.5%.

Out of 11 branches mentioned above 7 branches are earning profit and 4 branches are incurring losses. The net amount claimed by the branches from Head Office is Rs.628 lakhs as against the investment income of Rs.770 lakhs.

The profit of all branches put together is Rs.378.151akhs as against net profit of Rs.221 lakhs which clearly shows that excess amount is passed on to the branches at the cost of Head Office.

Table - 4 :: Multiple pricing model

Branch	CD/SB Deposits	Term Deposits	Total Deposits	Directed Lending	Other Lending	NPA	Total Adv	Profit /Loss
1	1600	400	2000	200	600	100	900	102.8
2	600	1400	2000	200	600	100	900	79.8
3	700	1300	2000	300	2100	300	2700	214.1
4	800	1200	2000	400	400	600	1400	54.4
5	300	700	1000	300	200	50	550	48.9
6	200	800	1000	800	400	100	1300	106.6
7	100	900	1000	200	200	200	600	26.3
8	500	1000	1500	100	400	100	600	90.5
9	30	170	200	60	50	10	120	4.99
10	30	170	200	200	70	20	290	18.79
11	1500	2500	4000	50	200	10	260	126.4
Total	**6460**	**10540**	**16900**	**2810**	**5220**	**1590**	**9620**	**873.58**

Assumptions:

HO reimbursing 2.1 times on interest paid on CD/ SB deposits and 1.1 times on interest paid on term deposits. Since yield on priority sector advances is low (directed lending activity) HO is passing a subsidy of 5% on such advances. Branch has to pay @ 6% on all advances since we are treating the same as borrowings from HO.

All 11 branches are showing accounting profit under Multiple Pricing System since HO is passing subsidy to the branches on activities, which are not profitable from the point of view of the branch but is necessary for the Bank. The net amount claimed by the branches from Head Office is Rs.1752 lakhs as against the investment income of Rs.770 lakhs.

The profit of all branches put together is Rs.873.58 lakhs as against net profit of Rs.221 lakhs which indicate that the profit of the branches is inflated by around 4 times of Banks net profit.

The existing TPMs are suffering from a number of deficiencies. More prominent among them are:

- The systems adopted are not transparent and highly subsidized.
- There is no correlation between increase in pro(it of a Bank with decrease in loss incurring branches and vice versa.
- No meaningful inter-bank comparison of loss making branches is possible since there is no uniform approach of TPM at industry level.
- Undue importance is given on showing profit rather than generating profit at the branches.
- No mechanism could be evolved to differentiate between the branches making accounting loss and the intrinsically unviable branches.

A Dynamic Model:

Branch Banking is in vogue in public sector banks where the branches have to work in the regulated environment in the areas like pricing of products and deployment of funds. These are dependent on the area of operation viz., Metro, Urban, Semi-Urban and Rural.

Further all branches are not uniform and majority of the branches is fund-providing centres and remaining units act as deployment wings of the bank. Out of 11 branches, 9 branches are net lenders to Head office where as only 2 branches are borrowing funds from Head office. Further the geographical distribution of branches i.e. 3 branches each at Metro, Semi-Urban and Rural and 2 branches in Urban, clearly indicates that it requires special treatment since the business mix is different at each segment.

Additionally, the different models and their impact on loss incurring branches and burden on Head Office, it is felt that there is a need to review the existing TPM system.

In the light of all this it is appropriate to adopt multiple interest rate system (group-wise) to compensate the branches at least to the extent of cost of deposit plus servicing cost in case of surplus branches and yield on advances minus servicing cost with regard to borrowing branches since all branches are not uniform in terms of business mix. The proposed interest rates are arrived on the average basis under each category and need periodic review in the light of dynamic interest rate system.

For this revised model we need to ascertain the average cost of funds mobilized by the various groups of branches and the average yield on advances and investments. Further the servicing cost is to be loaded into the price. The service cost includes establishment and other expenses and it is ideal to load administrative expenses also in the price. Similarly, HO should claim amount from the borrowing branches based on the available interest spread. The working of interest rates is presented in Table - 5:

Table- 5 :: Ascertaining the Transfer Price

Particulars	Metro	Urban	Semi- Rural	Total	Urban
Average Deposits	4200	4000	6500	2200	16900
Average Advances	3890	2300	2160	1270	9620
Workingfunds	8090	6300	8660	3470	26520
Interest paid on deposits	257	302	496	190	1245
Cost of deposit (%)	6.12	7.55	7.63	8.64	7.36
Interest received on Advances	485	210	245	124	1064
Yield on advances	12.47	9.13	11.34	9.76	11.06
Operating Expenses	90	80	95	50	315
% of operating expenses to working funds	1.11	1.27	1.10	1.44	1.19
Interest rate on funds lent to HO	7.23	8.82	8.73	10.08	8.55
Interest rate on funds borrowed from HO	11.36	7.86	10.24	8.32	9.87

The above-mentioned interest rates are applied to the branches and the profit/loss is ascertained. Table - 6 reflects these calculations.

Table - 6 :: Dynamic Pricing Model

Branch.	CD/ SB	Term Dep	Total Dep	Directed Lending	Other Lending	NPA	Total Adv	Profit/ Loss	Status
1	1600	400	2000	200	600	100	900	82	M
2	600	1400	2000	200	600	100	900	29	U
3	700	1300	2000	300	2100	300	2700	94	M
4	800	1200	2000	400	400	600	1400	-11	U
5	300	700	1000	300	200	50	550	16	R
6	200	800	1000	800	400	100	1300	13	SU
7	100	900	1000	200	200	200	600	-13	R
8	500	1000	1500	100	400	100	600	59	SU
9	30	170	200	60	50	10	120	-3	R
10	30	170	200	200	70	20	290	-5	M
11	1500	2500	4000	50	200	10	260	97	SU
Total	6460	10540	16900	2810	5220	1590	9620	358	M

M = Metro U = Urban SU=Semi-Urban R = Rural

Under the suggested model 7 branches are earning profit and 4 branches are incurring losses. The net amount claimed by the branches is Rs.608 lakhs as against an operating surplus of Rs.770 lakhs at Head Office. The net profit of all branches put together is around Rs.358 lakhs as against a net profit of Rs.221lakhs.

Out of 4 loss incurring branches 2 branches are marginal and other 2 are due to high NPA and directed lending that need to be subsidized.

This model is more scientific and dynamic in nature as the interest rates depend on cost of resources, yield on funds and operating expenses. It also protects the branches from the location barriers like deposit mix etc. It is also having the flexibility to load subsidies like incentives on mobilization of low cost deposits over and above the average level, directed lending, etc.

This model can also be used as a tool in fixing service prices, which is the need of the hour.

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Table - 7 :: Summary result of various models

Branch	Transfer Pricing system							
Name	Unitary		Dual		Multiple		Dynamic	
	HO Interest	Profit/ Loss	HO Interest	Profit/ Loss	HO Interest	Profit/ Loss	HO Interest	Profit/ Loss
1	110	112	110	101	200	103	80	82
2	110	42	110	31	247	80	97	29
3	-70	104	-84	94	-40	214	-80	94
4	60	-4	60	-10	172	54	53	-11
5	45	16	45	11	118	49	45	16
6	-30	14	-36	10	28	107	-31	13
7	40	-13	40	-17	115	26	40	-13
8	90	70	90	61	192	90	79	59
9	8	-3	8	-4	24	5	8	-3
10	-9	-3	-11	-5	3	19	-10	-5
11	374	144	374	107	693	126	327	97
Total	728	479	706	379	1752	873	608	358