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BANK PROFITABILITY

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A perusal of business literature, particularly that of your industry, over the past few years suggests that banking can expect to undergo significant changes in the seventies. To some degree, these decennial predictions traditionally anticipate more radical or daring change than usually occurs, for it is our nature as human beings to accept changes gradually. With almost 14,000 commercial banks in the United States, it is easy to understand why changes in banking practices tend to be more evolutionary than revolutionary. Nonetheless, a greater share of the predictions may be realized in this decade than in those past. The formation of bank holding companies may perhaps be the most significant factor in stimulating changes by broadening the range of services provided by banks. Richard Cooley of Wells Fargo has described the holding company as a "one-stop financial center" and the decade as one in which the emphasis will be on new services and marketing. Stated another way, it will be a decade of developing new approaches to improving bank profitability.

The emphasis on change and innovation may be just in time, for the Hunt Commission Report, if implemented, would introduce a new dimension of competition to your industry. Thus, it is critical for you to understand what you are and what you can do best, and in this sense, what you can do most profitably. It is well to remember that you are profit-making institutions, and therein lies the principal theme of my remarks—the role of cost accounting in determining profitability and in identifying courses of action for achieving profitability. It is my belief that customers like to deal with successful banks, not marginal ones, for they respect organizations that are skillful enough to make money as a result of the quality of the services they provide. In unusual years, such as 1970, you may make money in spite of yourself, but over the long pull the best performers will be those who understand the source of their profits.

Historically, your industry has been concerned with the time value of money and has relied on this principle as the primary source of operating income and profit. But neither money nor profits are proprietary products, and the tenor of the predictions for the seventies suggests an awareness of this through the stress on new services. I would not interpret these as saying that money management will not continue to be the backbone of your operations, but I do think they suggest that greater attention will be paid to the time value of people. Perhaps you have not thought of your business in these terms, but it is a concept that is important to understand in the quest for profits. Your basic product is time, and the key to profits is learning how to manage time.

People costs have increased steadily in the post-war years, while interest rates have largely been a function of money supply and monetary policy. The significance of this is in understanding cost/profit relationships, for as an industry you have traditionally provided a number of services to your customers under the broad umbrella of your interest rates. Some you have given away as a courtesy to your customers, and others you have charged for, but probably at little more than cost. The tradition, though generous to the customer, has created some alarming precedents in the minds of bankers and in the attitudes and expectations of customers, for there is no clearly defined buyer-seller relationship in which each party clearly understands the scope and price of the service transaction.

In the days when people costs were low in relation to interest rates, it was undoubtedly feasible to provide these business courtesies as part of the customer relationship. The requests were relatively simple, in today's terms, and easily satisfied. But over time the requests have become more complex, and you have continued to reach out to your customers with both willingness and interest to accommodate their needs. The difference now is that people are more expensive and the quality of people needed to innovate services and carry them out is more expensive than it has been traditionally. The interest rate umbrella just cannot be expected to do the whole job of providing the profits to pay for the gratuitous services and to yield a satisfactory return to your shareholders.

Now I realize that many of you have adopted the practice of charging fees for a number of the services you provide. But how many are the result of a careful analysis of your costs, and how many include an element of profit? Further, do you know just how many services you currently provide and which you should plan to provide that would anticipate customer needs? My guess is that you would be surprised at the answers to both aspects of that question.

So, this is where the search for a clear understanding of profitability begins; by recognizing the time value of people and, therefore, realizing that you are providing professional money management services, not just lending money. For this reason, it is important to understand what you have to sell and how you must price it to make a profit. This requires that you discern the difference between the activities directly related to an interest-earning transaction and those that represent your other professional and business services. When you realize that you are basically selling service, not money, then the problem becomes one of learning how to manage time—to understand the cost of the resource and how to use it profitably. This brings me to the starting point in my discussion of the role of cost accounting in determining profitability.

ANALYSIS OF TIME

Before any costing techniques can be applied, you must first find out how people are using their time. At first blush this might seem a bit unnecessary, for you probably feel you know "pretty much what your people are doing"—or, on reflection, do you have a slight doubt about this question? I think you will be surprised at the answers you get, for you will probably find that your basic lending services, for example, have been embellished in response to requests from customers for additional assistance or on the initiative of your staff in attempting to distinguish your services from those of a competitor.

In terms of profitability, these embellishments and their costs tend to be forgotten, for you are unaccustomed to the concept of selling time and, therefore, to the discipline of accounting for time. Here again, the interest umbrella effect is at work influencing the actions and attitudes of both bankers and customers, because there has never been a clear understanding of what activities or services the interest rate is supposed to cover. The same conflict exists for trust services, where fees are based on the market value of assets under administration. What services do these fees entitle the customer to, and how much of your time is he entitled to? My guess is that this has rarely been defined either for administrative purposes or for the sake of the customer relationship.

So, the first task is to develop an inventory of the activities and services that the bank's employees devote time to. The data should be gathered in sufficiently detailed form to permit you to identify the separate activities that are required to accomplish each income-producing service as well as those activities that are unique to a particular customer or class of customers. This should give you a start at developing a rationale for the activities that are to be associated with interest income or other fee services, and for identifying those activities that should be separately offered on a time or transaction basis and those that must be applied as overhead. The important issue is to get sufficient identification of the ways in which time is being used so that you can make intelligent business decisions about the scope of services to be offered, the prices to be charged and the customers or types of customers you want to do business with.

Since the time data will be the primary basis for assigning and allocating costs to services and to customers or classes of customers, the choice of technique for gathering the data will be a function of the complexity of your business and the degree to which you want to identify unique services or profitable marketing opportunities. The options range from time logs or diaries, to work sampling, to stop watch, to movie camera or video tape, to analyst observation or interview, or to informed estimation. A combination of these techniques is usually the best answer, using the techniques that most easily measure the function being performed to the degree of precision needed for your answers. For example, work sampling works quite well for repetitive, short-interval tasks that are easily identified by an observer, such as those performed on the teller line, but would not work on the officers' platform. Time logs, on the other hand, are more appropriate to those jobs where the duties have random occurrence and varying completion cycles, such as in lending or trust. It would be natural to resist this process, for generally you have done these studies in the past as the basis of manpower control programs or broad functional cost studies. However, your industry has rarely viewed itself as selling time; and thus, this concept of maintaining time records is one you should learn to accept as other professionals have.

In considering what you want to learn about the use of time, you might plan to distinguish among classes of customers—by type or size—and the services provided to each. One of the issues you need to be sensitive to in analyzing profitability is the relationship of the types of customers to the services offered. For example, which class of customers uses your utility bill collection service, and is that service a profit contributor by itself or a loss leader? Hence, you should probably develop an approach to classifying customers so that the time data can be examined both in terms of customers and services.

In order to cut this problem down to size, you may find it helpful to take advantage of the 80-20 rule, which simply says that in a large population of random numbers, 20 percent of the population will generally contain 80 percent of the values of the population. Thus, for example, you might find that something in the order of 20 percent of your commercial loan customers account for 80 percent of your loan volume, or that loans over $25,000 account for 80 percent of the loans made. It is a simple tool that is tremendously helpful in bringing perspective to a numerical problem. A word of caution: it is not applicable to populations with a narrow range of values such as installment loans or payroll.

SERVICE PROFITABILITY

The stage has been set for obtaining an insight into profitability by looking at both sides of the coin—services and customers. I will deal broadly with the concepts of determining profitability to illustrate the point, and I will presume the existence of a sound responsibility accounting system for the purpose of my remarks. I'm dealing first with the profitability of services as indicated in Exhibit 1.

It is necessary to deal with the flow of costs to each service line which requires the traditional separation of the bank into three areas—the lending or funds-using functions, the fund-providing functions, and those operating and administrative functions that are not directly involved in either of the first two. The allocation of costs follows bases you have traditionally worked with and, to the extent practicable, should be related to the activity or benefit involved. The allocation of the cost of funds will be a function of your sophistication and the diversity of fund-using activities. For the purpose of this discussion, I will not review the pros and cons of the concepts of single and multiple pools of funds. It is sufficient to say that you should be satisfied that the method you have adopted is suited to your decision-making needs. When complete, the process would provide a summary of the costs of fund-using profit areas as illustrated in Exhibit 2.

The result of these allocations is to provide an appraisal of bank profitability in terms of its major profit centers so that top management can assess how well it is using its resources (Exhibit 3).

These are profits based on total costs, which, regardless of your pricing policies, must ultimately be covered by total revenues if you are to survive. In the first instance, the quantity of profit has been determined as a result of matching revenues and costs; and, in the second, the quality of profit has been computed by relating the profits to the invested funds. So we now have an overview of the profitability of services, and the ability to begin making judgments about their adequacy in terms of the overall return on shareholders' equity.

COST OF FUNDS

Since the cost of funds plays such a significant part in determining profitability, it is worth digressing for a moment to find out where the funds are coming from as a means of finding out if the cost is consistent with the bank's investment philosophy. Schematically this can be portrayed in the manner illustrated in Exhibit 4. The investable funds represent the net funds available after allowing for float, reserve requirements, and items of that nature, and are the basis for distributing the net revenue produced by the fund-using functions to the fund sources as imputed revenue. The result is a profit or loss contribution by source of funds.

The imputed revenue represents interest revenue earned on loans less costs of performing those functions as indicated by the analysis in Exhibit 5. The purpose of this calculation is to determine if the bank is paying more than that rate for the money it is lending.

By applying the rate of imputed revenue to the net investable funds provided by each source of funds, it would be possible to determine the profitability of each source in terms of both the quantity and the quality of profit as shown in Exhibit 6.

The single pool concept has been used in developing and applying the imputed rate in the illustration with the result that certificates of deposit and borrowed funds show as an unprofitable source of funds. However, had these sources been used for specific purposes, it would be desirable to refine the results by adjusting them for this fact so that for all practical purposes, the multiple pool concept would be used. The qualitative assessment of the sources of funds provides an insight into the least expensive sources of funds and can be used in developing policies to emphasize where to go after funds.

CUSTOMER PROFITABILITY

The process we have just been through has established the total costs and profitability of the major income producing services. To improve your insight into profitability, it is necessary to do two additional things with the data.

First, use the time data collected from your employees to identify the individual activities or tasks associated with each income-producing service as the basis for developing the costs to be matched with the revenues produced by the service. This will provide a first cut at the profitability of each service and the information needed to define the activities to be associated with the interest rate, as contrasted with those that should be covered by fees. It will also permit you to consider whether certain activities should be more efficiently performed or eliminated in setting profit objectives. Second, classify the data by transaction size, such as loan size, so that you can distinguish the activities that are unique to certain size transactions, as well as to improve your understanding of those activities which are proportional to transaction size as contrasted with those that are required by every transaction—the fixed and variable relationships. The results of these steps will be to develop unit cost and profit data so that you will understand the current sources of profits at the transaction level rather than just in the aggregate and where you may need to take action to differentiate the services you render as the means to developing a profitable pricing structure.

One bank found in studying its trust activities in this manner that 3 percent of its accounts were responsible for 82 percent of the trust department's net profits and further that it was losing money on 75 percent of its accounts. These answers enabled the bank to rethink its approach to trust services and how to market them profitably. Most importantly, it helped them to acquire an understanding of the characteristics of the market—what the size of each segment was and its profit potential. This led to another significant insight—the importance of determining the real needs of existing and potential customers as the basis for developing new profitable fee services, rather than sending a service developed within the bank in search of a customer.

The other side of the profitability coin is that of understanding customer profitability—which customers are profitable and why. Although some banks have developed account analyses on corporate customers, the results have usually been limited to operational services and rarely have comprehended the total customer relationship. It has been customary for you to provide a number of services to valued customers, some for a fee and some for free, and to assume that in the aggregate you have made money on the sum of your business with each of these customers. But, have you? How can you be sure if you have no methodology for bringing all these facts together in a systematic way?

In approaching the problem, it is important to realize that each customer need not be dealt with individually, for the task can be handled in a practical way through the use of the 80-20 rule. Since a relatively small number of customers probably provides the bulk of each bank's profits, start out by analyzing the relationship of the largest customers individually and by grouping the remainder of the customers into classes of customers with similar characteristics.

The concept of determining customer profitability can be illustrated by two examples, one dealing with a net depositor and the other with a net borrower. In the case of the net depositor (Exhibit 7), it is necessary to give him credit for the funds he has provided after allowing for float and reserve requirements and the funds used for his loans. In addition to the income earned on his loans, he receives an earnings credit based on the imputed rate of revenue—the bank's rate of earnings on invested funds.

In the case of the net borrower (Exhibit 8), the solution is a bit more complex than in the preceding example, for as a net borrower, it is now necessary to recognize a loan loss provision. The customer is also charged for the internal cost of funds on the net funds borrowed. You may want to consider one additional aspect of this relationship where the customer has an unused line of credit and that is the funds opportunity cost. This represents the revenue lost by the bank in maintaining the liquidity needed to meet the full amount of the loan commitment. Although it is unlikely in most situations that all loan commitments would be drawn down concurrently, the unused lines of credit are nonetheless a consideration in managing the bank's liquidity strategy. In a general sense the opportunity cost would represent the difference between the yield on the loan and the yield on the funds used to maintain liquidity.

In translating these concepts into a live example, consider the facts set forth in Exhibit 9. The data is not difficult to collect, although it may be more easily handled if you have a computer. The example portrays a seasonal customer and his relations with the bank over a one year period. By applying the costs for the various services to those he has used, it is possible to develop a summary of this customer's profitability. The worksheet simply illustrates an approach to presenting the information. It might well be embellished by additional types of services identified through the inventory of services derived from analyzing how people use their time. The important issue is that you determine that you have properly priced your services to make a profit possible and that you understand how much free service you can afford to give away.

SUMMARY

The thrust of these comments has been pointed essentially at the fact that you have professional skills to sell in addition to being a source of money. Therefore, profitability will be a function of how well you learn to segregate the cost of professional services from the cost of money and to recognize that your time–the time value of people–is valuable and should be paid for as is the time of other professionals. The implications of this conclusion are that some form of time records will be a necessary part of your professionalism, for you must have both the ability to manage and control time and to identify what it is you are billing for.

You will probably have two types of services; those that are sold on a transaction basis where the time investment is largely the same from instance to instance, and those that are sold on an hourly basis where the time is a function of the complexity of the problem or the needs of the customer. In both instances, you would be moving toward a more normal buyer-seller relationship with your customer where he would know what he is buying and why, and away from the vague and ill-defined umbrella of the interest rate and compensating balance or the trust fee based on market value of trust assets.

I have presented an approach to cost accounting that is essentially analytical. Its objective is to help you understand your business better and, more importantly, to identify the actions to be taken in realizing your profitability objectives. However, if the results are viewed simply as numbers, they will not accomplish their purpose. Your accountants must interpret and present them in a managerial framework that recognizes how actions must be organized to get results. This requires an appreciation of the problems of the president, the lending officer, the marketing man and the trust officer. Introducing the concept of professional services, priced to contribute a profit rather than just to recover costs, may well require time and may well need to be initiated selectively among your larger customers who seek custom-made services. But the innovaters among you will find ways to introduce the change by distinguishing their services from those of their competitors. ●

EXHIBIT 1

Profit Center/Service Line Costing
Fund Activities

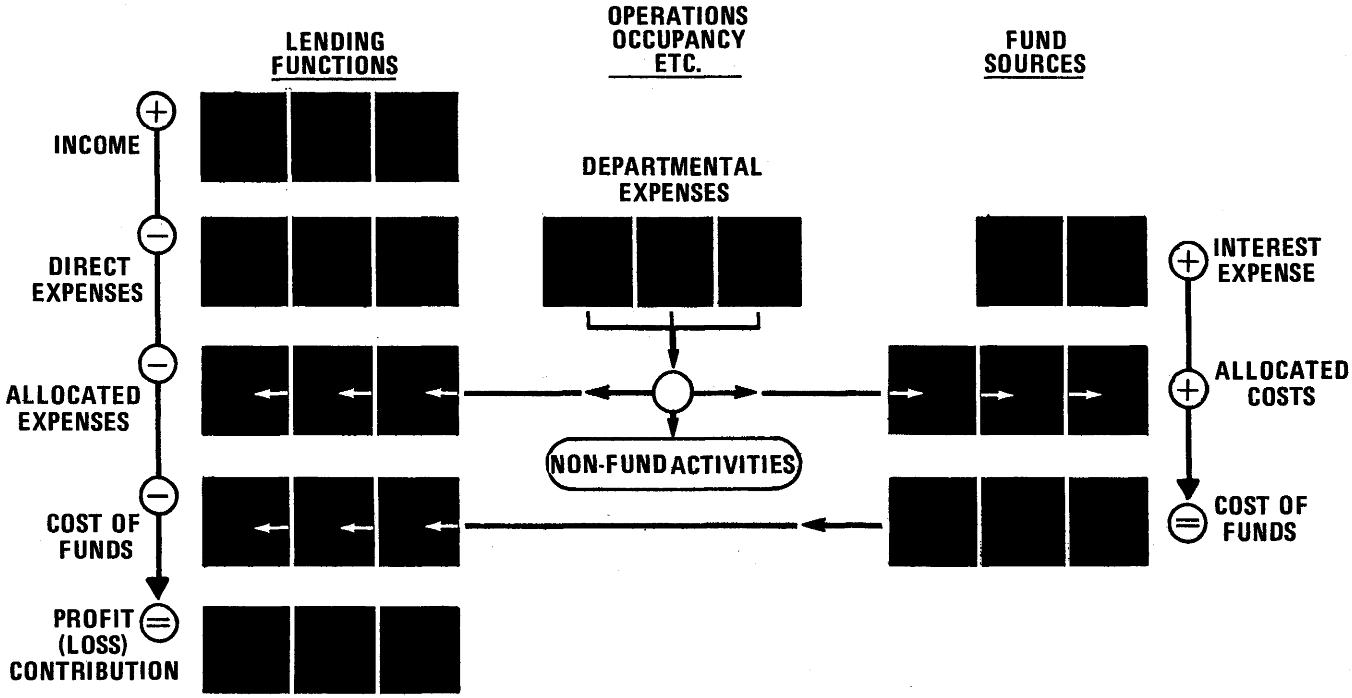


EXHIBIT 2

Costs of Fund-Using Profit Areas

	Commercial Loans	Real Estate Loans	Instalment Loans	Credit Card	Other Loans and Investments
Cost of funds	$1,065,000	$348,000	$575,000	$ 30,000	$587,000
Annual cost of people and facilities allocated directly to fund-using departments through general accounting system	105,600	50,000	110,000	38,400	34,000
Allocated portion of costs of benefit-providing units					
Occupancy cost center	6,800	5,000	6,000	2,000	
Communication function	2,600	3,000	2,000	3,000	600
Administrative function	100,000	60,000	76,000	3,900	10,000
Data center	4,800	3,000	3,000	6,000	1,500
Tellers department	8,000	12,000	13,000		
Proof and transit department	4,000	5,000	4,000		
Credit files section	58,000	20,000	50,000	20,000	
Credit analysis section	110,000	20,000	36,000	20,000	
Total costs of fund-using profit areas	$1,464,800	$526,000	$875,000	$123,300	$633,100

EXHIBIT 3

Profitability of Fund-Using Profit Areas

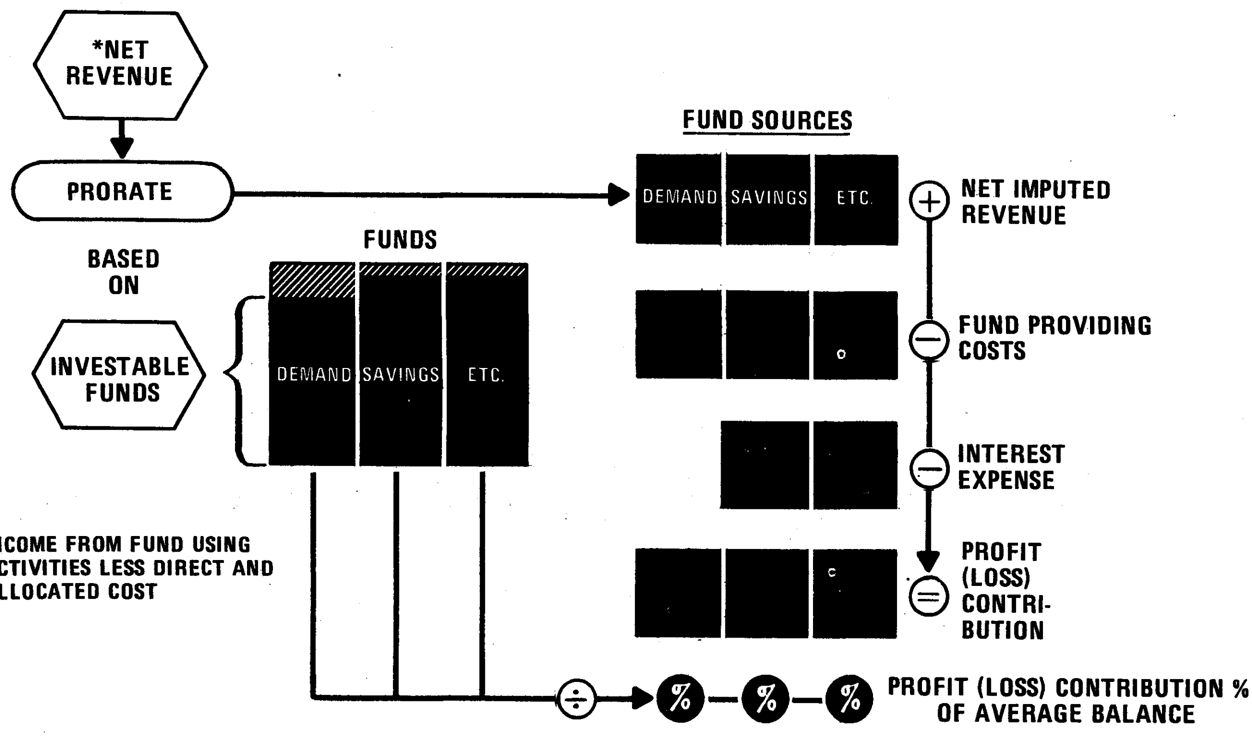
	Interest Income	Fees	Revenue from All Sources	Cost	Profit (Loss) Amount	Rank
Commercial loans	$1,850,000		$1,850,000	$1,464,800	$385,200	1
Real estate loans	550,000	$30,000	580,000	526,000	54,000	4
Instalment loans	1,050,000	40,000	1,090,000	875,600	214,400	2
Credit card	78,000	8,000	86,000	123,300	(37,300)	5
Other loans and investments	724,000	10,000	734,000	633,100	100,900	3
	$4,252,000	$88,000	$4,340,000	$3,622,800	$717,200	

Profitability as Percent of Invested Funds

	Invested Funds	Interest Income	Revenue from All Sources	Cost	Profit (Loss) Percent	Rank
Commercial loans	$35,935,000	5.15%	5.15%	4.08%	1.07%	2
Real estate loans	11,681,000	4.71	4.96	4.50	.46	4
Instalment loans	19,299,000	5.44	5.65	4.54	1.11	1
Credit card	1,022,000	7.63	8.41	12.06	(3.65)	5
Other loans and investments	19,603,000	3.69	3.74	3.23	.51	3
Total	$87,540,000	4.86	4.96	4.14	.82	

EXHIBIT 4

Profitability of Fund Sources



*INCOME FROM FUND USING ACTIVITIES LESS DIRECT AND ALLOCATED COST

EXHIBIT 5

Calculation of Rate of Imputed Revenue

	Amount	Percent of Investable Funds
Interest revenue	$ 4,252,000	4.8572%
Less: Cost of lending (amounts from excluding cost of funds and credit card costs):		
Commercial loans	399,800	
Real estate loans	178,000	
Instalment loans	300,600	
Other loans and investments	46,100	
Total	924,500	
Less fees (excluding credit card)	80,000	
Net cost of lending	844,500	.9647
Net revenue	$ 3,407,500	3.8925%
Investable funds	$87,540,000	
Net revenue as percent of investable funds	3.8925%	

EXHIBIT 6

Summary of Profitability of Fund-Providing Profit Areas

	Imputed Revenue				
	Investable Funds	Revenue at 3.8925%	Cost	Profit (Loss) Amount	Rank
Demand deposits—regular checking	$25,952,000	$1,010,200	$ 410,900	$ 599,300	1
Demand deposits—special checking	2,968,000	115,500	65,000	50,500	4
Other demand deposits	400,000	15,600	4,000	11,600	6
Regular savings deposits	37,523,000	1,460,600	1,389,800	70,800	3
Club savings deposits	800,000	31,100	1,800	29,300	5
Certificates of deposit	6,897,000	268,500	354,500	(86,000)	7
Borrowed funds	5,000,000	194,600	371,000	(176,400)	8
Capital	8,000,000	311,400	8,000	303,400	2
Totals	$87,540,000	$3,407,500	$2,605,000	$ 802,500	

Quality of Profit Fund-Providing Profit Areas

	Average Deposit Balance	Profit (Loss) as Percent of Average Balance	
Demand deposits—regular checking	$ 33,826,000	1.77%	4
Demand deposits—special checking	3,869,000	1.31	5
Other demand deposits	521,000	2.23	3
Regular savings deposits	38,684,000	.18	6
Club savings deposits	825,000	3.55	1
Certificates of deposit	7,337,000	(1.17)	7
Borrowed funds	5,000,000	(3.53)	8
Capital	11,061,000	2.74	2
Totals	$101,123,000	.79%	

EXHIBIT 7

Customer Profitability
(Net Depositor)

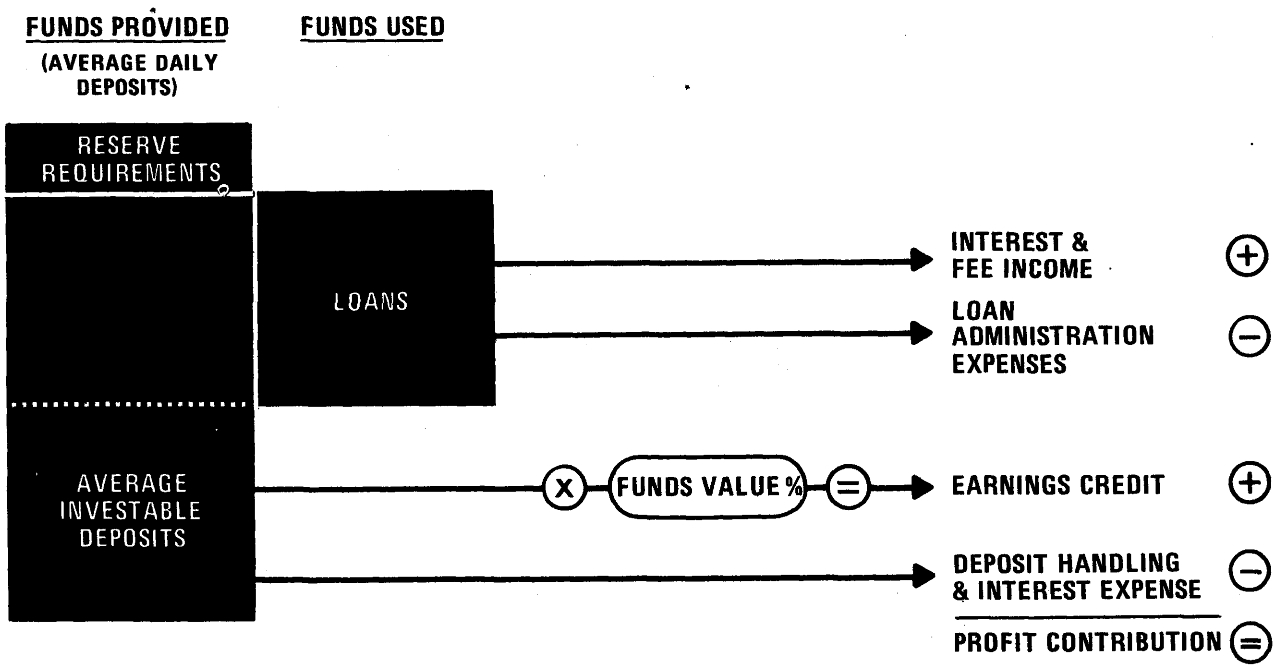


EXHIBIT 8

Customer Profitability

(Net Borrower)

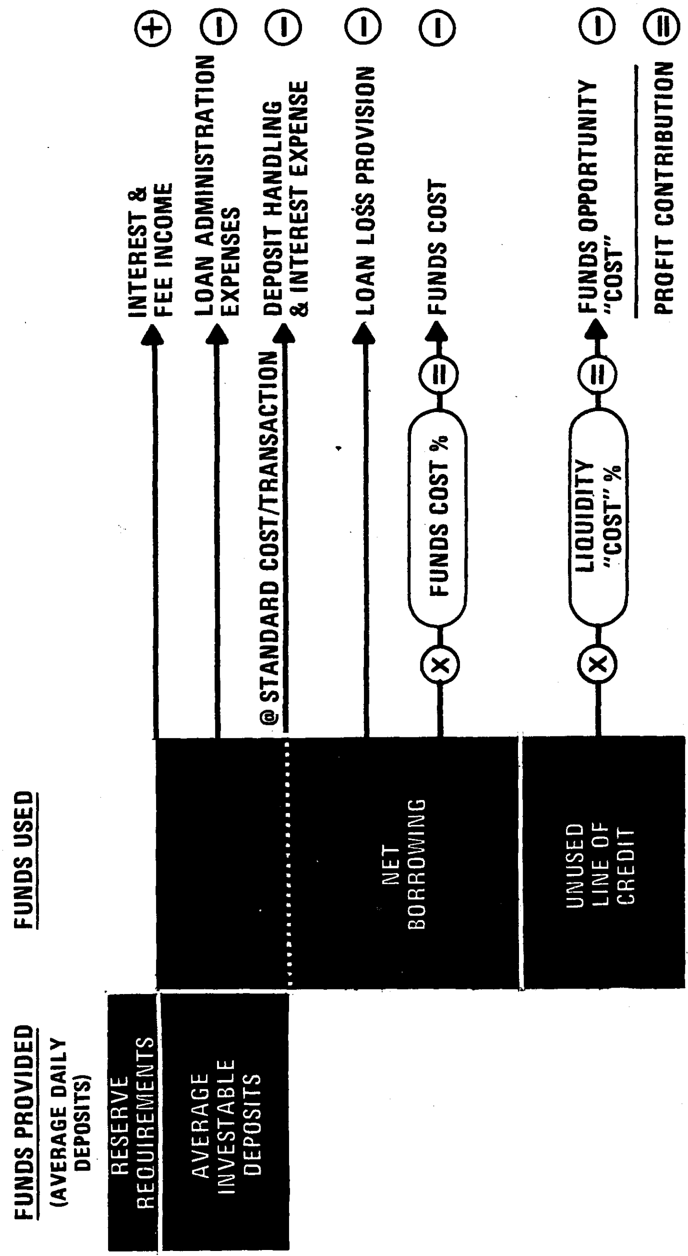


EXHIBIT 9

Customer Profitability Worksheet

	Loans Outstanding	Average Daily Deposits Balance	Revenue Interest	Service Charges and Fees	Checks Deposited	Deposits Made	Checks Drawn	Statements
Jan.	$ 270,000	$ 50,000	$1,350	$ 35	800	25	1,020	5
Feb.	200,000	40,000	1,000	38	840	27	995	6
Mar.	100,000	50,000	500	44	900	30	1,100	5
Apr.	—	75,000		47	800	22	1,005	5
May	—	75,000		40	400	24	940	6
June	—	75,000		42	500	21	600	5
July	—	80,000		36	450	22	575	5
Aug.	—	68,000		32	400	20	625	5
Sept.	—	70,000		37	375	21	750	5
Oct.	100,000	50,000	500	40	400	20	800	6
Nov.	250,000	60,000	1,250	48	425	19	900	5
Dec.	400,000	75,000	2,000	50	300	22	1,000	6
Total ÷ 12	1,320,000	768,000	$6,600	$489	6,590	273	10,310	64
Monthly Av.	÷12 110,000	÷12 64,000		Unit transfer costs	$.026	$.136	$.044	$.825
Conversion factor		76.7%			$171.34	$37.13	$453.64	$52.80
Average investable funds		49,088						
Excess Loans	$ 60,912	$						
Funds								
Charge for excess loan	$ 1,815							
Credit for excess funds		$						

Earnings

Interest revenue	$6,600
Fees and other revenue	489
Credit for excess funds	
Total earnings	7,089
Less costs	2,585
Profit	$4,504

Costs

Charge for excess loans	$1,815
Checks deposited	171
Deposits made	37
Checks drawn	454
Statement	53
Loan loss provision at .005% of average loan	55
Total costs	2,585
Less earnings	
Loss	$