

FEDERAL RESERVE BANK OF DALLAS  
DALLAS, TEXAS 75222

Circular No. 71-38  
February 16, 1971

To the Chief Executive Officer  
of the Member Bank Addressed:

The Functional Cost Analysis program is now entering its sixth year in the Eleventh Federal Reserve District. As a result of the interest expressed by the participating banks, we are endeavoring to provide supplemental data that will prove meaningful in analyzing and measuring bank performance. The article enclosed with this letter, "Cost and Returns for Major Bank Functions, 1969," should prove helpful to any bank wanting more detailed information about its funds-supplying and funds-using functions.

All data in the article was obtained from Functional Cost Analysis reports submitted by banks in the Eleventh Federal Reserve District. This provides a valid geographical comparison. We hope that the data will prove helpful in answering questions you might have concerning costs and profits of deposits and investments.

If you have any questions concerning this article, please feel free to contact the Functional Cost Analysis Division of this Bank.

Yours very truly,

P. E. Coldwell

President

Enclosure

COST AND RETURNS  
FOR  
MAJOR BANK FUNCTIONS  
1969

PROVIDED BY THE  
FUNCTIONAL COST  
ANALYSIS DIVISION  
OF THE BANK RELATIONS  
AND SERVICES DEPARTMENT

FEDERAL RESERVE BANK  
OF DALLAS

## COSTS AND RETURNS FOR MAJOR BANK FUNCTIONS, 1969

What is your bank's most profitable asset--instalment, real estate, commercial and agricultural loans, or security investments? The 1969 Functional Cost Analysis (FCA) program administered by the Federal Reserve Bank of Dallas for the Eleventh District member banks reveals that security investments proved the most profitable asset for a majority of banks regardless of size. When banks are categorized into three size groups, asset earning differences are more pronounced and varied.

The FCA program was originated to provide individual banks with standardized and detailed information about costs and income for each banking function. The following data was developed from the 66 banks participating in 1969 in this District. The three group sizes follow the FCA program format and enable more meaningful comparisons. Group I consists of banks with total deposits up to \$50 million. Group II banks have total deposits from \$50-\$200 million. Group III banks have total deposits over \$200 million. Group sizes are based on deposits because demand and time deposits along with certain non-deposit funds make-up a pool of available funds for lending and investment. This report will analyze the loan function, investment function, demand deposit function and the time deposit function.

\* \* \*

### Loan Function

Composition of assets and liabilities differ significantly among the three size groups. The differences reflect various geographical demands and bank needs and preferences for liquidity. All three size groups have a similar ratio of loans to total assets. Differences occur in the composition of the loan portfolio. In other words, the loan portfolios of the three size groups have different proportions of the three major loan categories--instalment, real estate, and other--to total loans.

	<u>Group I</u>	<u>Group II</u>	<u>Group III</u>
Ratio of loans to total assets (Percent)	49	51	49
Distribution of Loans			
Instalment	27	19	11
Real Estate	17	14	15
Other	56	67	74
Total	<u>100</u>	<u>100</u>	<u>100</u>

The Group I banks have a relatively high proportion of their loans to individuals in the form of consumer instalment loans. The "other" loan category includes commercial and agricultural loans. The commercial loan is very important to the Group III banks which provide credit to large manufacturers, finance firms, and wholesale and retail trade establishments. A sizable proportion of other loans for the Group I banks are agricultural loans and noninstalment loans to individuals.

Net earnings for instalment loans were significantly larger per \$100 of funds used for Group I banks than for the other two size groups. Income, expense, and net earnings for each loan category are shown in the table below.

Loans	GROUP I			GROUP II			GROUP III		
	Instalment	Real Estate	Other	Instalment	Real Estate	Other	Instalment	Real Estate	Other
Volume (millions)	\$3.2	\$2.1	\$6.7	\$11.4	\$8.2	\$44.4	\$32.6	\$37.1	\$262.6
Number	3,133	22	1,148	10,886	499	2,837	31,182	1,303	3,939
Average Size	\$1,110	\$11,449	\$6,500	\$1,179	\$21,053	\$16,583	\$1,192	\$50,548	\$232,484
Net earnings before "Cost of Money" (millions)	.2	.1	.2	.8	.4	1.5	1.9	2.8	8.8
<u>Loans per employee</u>									
Volume (thousands)	492	2,062	1,631	409	1,908	1,808	411	1,807	2,314
Number	450	223	393	384	125	130	365	88	60
<u>Ratio to dollar volume (percent)</u>									
Income	11.1	7.2	7.7	10.2	7.0	7.8	9.8	9.1	7.6
Expenses	-3.7	-1.5	-1.3	-3.8	-1.1	-1.1	-4.2	-1.1	-8
Cost of Money	<u>-3.1</u>	<u>-3.2</u>	<u>-3.1</u>	<u>-3.2</u>	<u>-3.2</u>	<u>-3.2</u>	<u>-3.2</u>	<u>-3.2</u>	<u>-3.2</u>
Net Earnings	4.3	2.5	3.3	3.2	2.7	3.5	2.4	4.8	3.6

The dollar volume and number of loans per employee in each lending function can provide a useful comparison of operational efficiency. The loan volume per employee is fairly consistent for all three size groups for each lending function, but each employee in the Group I banks serviced a greater number of loans in each function. This is partially explained by the fact that Group II and Group III banks have a much larger volume and a far greater number of loans. It also indicates that more time and effort are required to make and service larger loans.

One reason for the greater expense incurred in the instalment loan department is the large number of personnel required. The 66 banks participating in this study had one of every six officers and employees assigned to the instalment loan function. This is second only to the demand deposit function which accounts for nearly half of the total personnel.

\* \* \*

#### The Investment Function

There are some differences among the three groups in both relative size and composition of security holdings. The Group I banks held a slightly higher proportion of total assets in investments than the two larger groups.

	<u>Group I</u>	<u>Group II</u>	<u>Group III</u>
Ratio of investments to assets	33	28	27
Distribution of Investments			
U. S. Securities	37	41	31
Tax-Exempt Obligations	46	47	49
Other Investments	8	4	4
Liquidity Loans*	9	8	16
Total	<u>100</u>	<u>100</u>	<u>100</u>

\*Federal funds sold, commercial paper, broker's loans, banker's acceptances and purchased certificates of deposit.

All three size groups held between 45 percent and 50 percent of total investments in tax-exempt obligations. Groups I and II did hold a significantly larger proportion of total investments in Government securities than did Group III. The Group III banks, on the other hand, held a higher proportion of liquidity loans. The Group III banks in most instances, were net purchasers rather than net sellers of federal funds, while the opposite is true of the Group I banks.

The average gross yield on Government securities held by all three size groups in 1969 was a little over 5 percent. Tax-exempt securities returned 8 percent for all banks after earnings were converted to a taxable basis. Liquidity loans yielded over 8 percent for all three size classifications. Income from tax-exempt securities, after conversion to a taxable basis, accounted for approximately half of investment income for all three size groups. Investment earnings are shown in the chart below.

	<u>Group I</u>	<u>Group II</u>	<u>Group III</u>
<u>Investments</u>			
Volume (millions)	8.1	32.4	170.1
<u>Ratio to dollar volume (percent)</u>			
Income	6.7	6.7	7.2
Expenses	-.3	-.1	-.2
Cost of Money	-3.1	-3.2	-3.2
Net Earnings	<u>3.3</u>	<u>3.4</u>	<u>3.8</u>
	* * *		

The Demand Deposit Function

	<u>Group I</u>	<u>Group II</u>	<u>Group III</u>
Ratio of deposits to total assets	90	87	81
Distribution of Deposits			
Demand	53	54	58
Time	47	46	42
Total	<u>100</u>	<u>100</u>	<u>100</u>

Demand deposits include regular checking accounts, special checking accounts, certified and officers' checks, travelers' checks, letters of credit, Treasury Tax and Loan Account, and dealers' reserves. The larger the bank, the larger the proportion of demand deposits to total deposits. Also, the number of accounts and the average size of the account increased with the size of the bank.

	GROUP I		GROUP II		GROUP III	
	Demand Deposits	Regular Checking	Demand Deposits	Regular Checking	Demand Deposits	Regular Checking
<u>Demand Deposits</u>						
Volume (millions)	\$12.1	\$11.5	\$56.4	\$53.4	\$315.0	\$300.5
Number of Accounts		6,326		15,632		36,346
Average Size		\$1,718		\$3,635		\$7,599
<u>Ratio to Dollar Volume</u>						
Income	5.9	5.8	5.0	5.0	4.8	4.7
Expenses	<u>-2.4</u>	<u>-2.3</u>	<u>-1.9</u>	<u>-1.7</u>	<u>-1.7</u>	<u>-1.5</u>
Net Earnings	3.5	3.5	3.1	3.3	3.1	3.2
<u>Monthly Account Activity</u>						
Activity Income		\$1.05		\$1.41		\$1.10
Portfolio Income		<u>7.01</u>		<u>13.11</u>		<u>27.10</u>
Total		8.06		14.52		28.20
Expenses		<u>-3.15</u>		<u>-5.06</u>		<u>-8.36</u>
Net Earnings		\$4.91		\$9.46		\$19.84

Regular checking accounts constitute well over 90 percent of all demand deposits. Income generated was substantially larger per \$100 of demand deposits for Group I banks than for the two larger groups. However, higher operating expenses in the Group I banks offset their larger income. Expense differences between the three groups reflect higher processing costs for each dollar of demand deposits in the smaller banks. This could possibly mean a smaller average size transaction. All three size groups averaged nearly \$1.00 per \$100 of demand deposits for commercial tellers and bookkeeping expenses. Other expenses, such as furniture and equipment, paper and printed materials, were proportionately lower in the larger banks, reflecting economies of large scale operations. Demand deposit expenses made up a large share of total expenses. Approximately 25 percent of total adjusted expenses are related to demand deposits for all three size groups.

\* \* \*

#### Time Deposit Function

Time deposits comprise 47 percent of total deposits in Group I banks and 42 percent in Group III banks. Group II banks closely compare with the smaller banks. The small banks do have a larger proportion of regular savings accounts to total time deposits than the two larger size groups.

	<u>Group I</u>	<u>Group II</u>	<u>Group III</u>
Distribution of Time Deposits			
Regular Savings	34	28	29
CD's and other time deposits	<u>66</u>	<u>72</u>	<u>71</u>
Total	100	100	100

Certificates of deposit make-up two-thirds of all time deposits for the three size groups. Club and school accounts are a very small percentage of total time deposits for all group sizes.

Portfolio income provided virtually all of the income related to time deposits. The number and average size of regular savings accounts increased with the size of the bank. Interest paid on time deposits was the largest expense and amounted to almost .5 percent more in Group III banks than in Group I banks. Earnings were \$1.20 per \$100 dollars of time deposit volume for both Groups I and III. Many banks in the three groups are carrying a sizable number of small accounts that in total comprise a very low proportion of total time deposits.

	<u>Group I</u>	<u>Group II</u>	<u>Group III</u>
<u>Regular Savings Deposits</u>			
Volume (millions)	3.3	14.6	49.3
Number of accounts	2,661	10,645	26,747
Average Size	1,325	1,550	2,038
<u>Ratio to dollar volume</u> <u>(total time deposits)</u>			
Portfolio income	6.3	6.1	6.4
Other income	*		
Total	<u>6.3</u>	<u>6.1</u>	<u>6.4</u>
Operating Expenses	- .5	- .4	- .2
Interest on Deposits	<u>-4.6</u>	<u>-4.9</u>	<u>-5.0</u>
Net Earnings	1.2	.8	1.2

\*Less than .05 percent.

A bank participating in the FCA program receives a report in which each of its functions is analyzed and compared in detail with banks of similar size and characteristics. If you do not now participate in the FCA program but would like to receive the type of information detailed in the above tables and paragraphs, contact the Federal Reserve Bank of Dallas. The information contained in the FCA report becomes increasingly useful as banks obtain cost and profit data for successive years.