AN EMPIRICAL EVALUATION OF COMMERCIAL BANK OPERATIONS IN TURKEY

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ABSTRACT

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By

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Basic banking legislation in Turkey forbids the creation of any depository type of financial intermediary other than banks. This has conferred near monopolistic powers on Turkish banks, greatly enhancing their general economic importance. As a result, scholars have engaged, especially in the last two decades, in a vigorous debate concerning the role played by banks in implementing economic policy. In this context the analysis is usually conducted in macro-economic terms without much attention to the internal operating efficiency of individual banks. This neglect of micro-economic factors is somewhat suprising because the Turkish banking system is markedly heterogeneous in character so that aggregative figures tend to conceal important aspects of the system. Furthermore, efficiency of a system depends largely on the efficiency of individual units that the system comprizes. Consequently, interrelationships between the internal operations of commercial banks and the framework of public policy within which they have to operate cannot be fully understood without a careful analysis

of the former.

The objective of this study is to remedy the above deficiency by specifically analyzing the internal operations of privately owned commercial banks in Turkey, in order to find out the specific performance factors significantly affecting their profitability. This objective is restated as the principal hypothesis of the study as follows. "Commercial banks in Turkey which do business under provisions of 'The Turkish Law on Banks' exhibit wide differences in profitability rates, and these differences can be explained by a careful analysis of internal operating factors."

Three secondary hypotheses concerned with growth, cost of operations, and number of branch offices of commercial banks, were also tested during the course of the research.

In order to familiarize the reader with the Turkish banking system, summarized background information on all relevant aspects of Turkish banking was included in the study. A separate chapter was added to point out some basic differences and similarities of commercial banking operations in Turkey and in the United States of America.

Annual rates of change computed for relevant sets of performance factors for each bank during the period 1961 to 1970, inclusive, were utilized and tested by use of the

chi-square criterion, Student-t test, and simple and rank correlations.

The principal source of data used in the study was the yearly publications of 'The Banks Association of Turkey'. These publications furnished the year-end financial statements of all the banks in Turkey, and other relevant information in connection with their operations.

Interviews held with the executives of ten commercial banks provided qualitative information which augmented the numerical data. The results of the quantitative analysis were also discussed with these executives.

The research disclosed statistically significant differences in the profitability rates of commercial banks. Seven out of twenty-nine performance factors tested were found out to be the major causes for these differences. These seven factors could be categorized into three main groups; lending, commercial deposits, and personnel.

Interestingly enough, no significant statistical difference was observed between the reported profits of growth and non-growth banks. Moreover, neither economies nor diseconomies of scale were observed to work for commercial banks included in the study. The analysis also disclosed that being organized as a unit or a branch bank did not, by itself, affect profitability.

It was concluded that Turkish bankers were probably responding logically to a public policy which did not encourage efficiency and optimum resource allocation. Therefore, it was recommended that the policy should be changed to create a framework within which bankers would be motivated to be more efficient. Relaxation of the fixed interest rate ceiling policy, exemption of interbank transactions from the transaction tax, and permission to form financial institutions other than banks, were the major public policy changes suggested to help create this framework.

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CHAPTER I

INTRODUCTION

" The importance of an over-all view of profit management is hard to exaggerate. Bank profits are achieved mainly by balance, precision, and consistency in management rather than by isolated bold strokes of business planning."

- R. I. Robinson
The Management of Bank Funds.

A. Purpose of Study

Various, and sometimes conflicting, opinions expressed by economists with respect to the efficiency of the banking system in Turkey have been the cause of a vigorous debate during the last two decades.

For example, Professor Z. Hatiboğlu of Technical University of Istanbul has elaborated upon the inefficiency and high costs of the Turkish banking system in his various papers.[1]

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1. Hatiboğlu, Zeyyat, (a) "Türkiye Ekonomisinde Bankacılığın Yeri ve Problemleri", "Türkiye Bankacılığının Başlıca Sorunları Semineri, May 28-30, 1968, Türkiye Ekonomi Kurumu İktisadi Araştırmalar Enstitüsü, Publication No. 8 (Başnur Matbaası, Ankara) 1969,pp:1-23. (b) "Türkiyede Bankacılığın Bünyesi ve Problemleri," Bankacılık Semineri, May 21-26, 1967, M.O. Prodüktivite Kurumu, (İstanbul Matbaası, Istanbul) 1968,pp.1-35. (c) "Banka Kaynakları ve Kullanılması," Bankacılık Semineri, pp. 36-66.

His criticism of the operational policies and procedures adopted by Turkish banks, and his objections to the existing public policy governing their operations are based upon the following factors.

1. Tendency towards excessive branching,
2. Excessive promotional expenses,
3. Lack of extensive use of checking accounts,
4. Excessive transaction tax levied on banking operations,
5. Excessive reserve requirements.[2]

Professor A. Zarakolu of University of Ankara claims that the profits reported by Turkish banks are not high enough despite the very favorable difference between the lending and borrowing rates of interest charged and paid by these banks.[3]

M. J. Fry of City University of London believes that banking is a fairly profitable business in Turkey although the Turkish banking system has high costs and is not very efficient.[4]

All these economists are mostly concerned with the role played by banks in implementing economic policy. In this

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2. Hatiboğlu, "Banka Kaynakları ve Kullanılması," pp.36-39.

3. Zarakolu, Avni, "Türkiyede Faiz Politikası," Bankacılık Semineri, p. 96.

4. Fry, Maxwell J., Finance and Development Planning in Turkey, (USAID/Turkey, Ankara) 1970, p. 91.

context the analysis is usually conducted in macro-economic terms without much attention to the internal operating efficiency of individual banks. This neglect of micro-economic factors is somewhat surprising because the Turkish banking system is markedly heterogeneous in character, and a relatively small number of banks represents a substantial portion of the total banking operations. Therefore, aggregative figures tend to conceal important aspects of the system.

It has been suggested that in the U.S.A., "banks usually try to 'keep in step' with one another", and "banking usually encourages conformity and discourages heterodoxy."[5] Statistics of Income based on income tax returns and prepared by the Bureau of Internal Revenue, show little dispersion in banking profits in the U.S.A., rates of earnings on invested capital bunching closely, and the number of banks suffering losses or showing exceptionally large profits being rare.[6] If the same were true for Turkish banks, aggregative figures for banking system as a whole could, to a certain extent, provide insight to the operations of Turkish banks. However, if a wide disparity in the profitability of the same existed, possible biases

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5. Robinson, Roland I., The Management of Bank Funds, Second Edition, (McGraw-Hill Book Company, Inc., New York) 1962. p. 45.

5. Ibid., p. 416.

introduced by significantly high or low ratios of a small number of banks could distort the true picture of the Turkish commercial banking system.

Furthermore, efficiency of a system depends largely on the efficiency of individual units that the system comprizes. Consequently, interrelationships between the internal operations of commercial banks and the framework of public policy within which they have to operate cannot be fully understood without a careful analysis of the former.

From a managerial point of view, too, it is more meaningful to think of a bank as an individual business enterprise operating in a competitive milieu, degree of success or failure depending heavily on the managerial policies and procedures employed. Professor Robinson of Michigan State University emphasizes on the fact that "Each bank is managed separately. The normal focus of the managerial problem in banking is a bank, not the system of banks."[7]

Finally, the relativeness implied by terms such as 'efficiency', 'high or low profitability', 'high or low costs', etc. definitely calls for a comparison of one sort or the other. Neither qualitative nor quantitative measures of relative strength or position can mean much

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7. Ibid., p. 415.

unless they are utilized to compare given situations with relevant criteria or with other situations of similar nature.

A preliminary research comprized of the following steps disclosed no evidence of any research conducted to answer the need explained in the preceding paragraphs.

1. Library research at:
   a. Banks Association of Turkey,
   b. Institute of Research on Banking and Commercial Law,
   c. Central Bank of Turkey.
2. Correspondence with:
   a. World Bank,
   b. International Monetary Fund,
3. Interviews held with:
   a. Associate Secretary General of Banks Association of Turkey,
   b. President of the Institute of Research on Banking and Commercial Law,
   c. Director of the Department of Economic Research, Central Bank of Turkey,
   d. Economic advisors of the Agency for International Development, Mission to Turkey.
   e. Professors of the Ankara Academy of Economic and Commercial Sciences,
   f. Executives of ten commercial banks.

Therefore, the objective of this study is to remedy the above deficiency by:

1. Specifically analyzing the internal operations of all privately owned national, local and foreign commercial banks, operating under provisions of 'The Turkish Law on Banks', over a period of ten years;
2. Evaluating the findings of this analysis, and on the basis of this evaluation, investigating why, if any, significant differences in the profitability of these banks exist;
3. Drawing generalizations to explain such differences in order to contribute to a better understanding of the commercial banking operations in Turkey.

B. Hypotheses

The objective outlined above is restated as the principal hypothesis of this study as follows.

Principal Hypothesis

"Commercial banks in Turkey which do business under provisions of 'The Turkish Law on Banks' exhibit wide differences in profitability rates, and these differences can be explained by a careful analysis of internal operating factors."

Secondary Hypotheses

Two studies made by the Federal Reserve Bank of Kansas, U.S.A., at the beginning of the last decade showed that "the more rapidly growing banks did not have higher earnings than banks that had grown less or not at all",[8] and that " the costs of doing business at big banks were appreciably lower than those at smaller banks."[9] An investigation undertaken to analyze the relationships between " growth and profitability ", and " size and cost of operations " of commercial banks in Turkey would not only be within the scope of this study, but would also be of interest to the policy makers of these banks.

Professor Z.Hatiboğlu contends that the increase in the number of branches of commercial banks has no economic value in Turkey, and therefore, the number of branches that these banks may operate should be restricted.[10] Few bankers agree with the professor while most of them strongly oppose this suggestion. Therefore, the following statements are included as secondary hypotheses to be tested during the course of the research.

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8. Ibid., p. 426.

9. Ibid., p. 427.

10. Aykent, Irfan H., Planlı Kalkınma Döneminde Türk Bankacılığı, (Ege Matbaası, Ankara) 1970.p. 49.

Secondary Hypothesis No.1

" The reported profits of the more rapidly growing commercial banks in Turkey have not increased more than those of commercial banks which have grown less or not at all."

Secondary Hypothesis No.2

" The costs of doing business at bigger commercial banks in Turkey are significantly lower than those at smaller banks."

Secondary Hypothesis No.3

" There is an inverse relationship between the rate of growth of the number of branches operated by commercial banks in Turkey and the rate of growth of their profits."

C. Background Information on the Turkish Banking System

At the end of 1970 there were 47 banks operating in Turkey, including the Central Bank of the Republic of Turkey.[11] The Turkish Law on Banks (hereinafter referred as TLB) does neither provide a clear-cut classification of banks, nor does it even define a 'bank'.[12] However, the Banks Association of Turkey (hereinafter referred as BAT), in its yearly publications, classifies the banks in Turkey under four headings, generally leaving the Central Bank and three development banks outside these four groups. The headings

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11. Banks Association of Turkey, Publication No. 43.

12. Aykent, op.cit., p. 39.

used in this classification are:

1. Banks Founded by Special Laws,
2. Other National Banks,
3. Local Banks,
4. Foreign Banks.

Banks in the first group were founded by their special, individual legislation. Although grouped under the same heading, these banks are far from being homogeneous and differ vastly as to their objectives and scopes of operation. Some of them are probably unique to Turkey, because they are actually state owned, manufacturing, mining or transportation companies which also deal with commercial banking in different degrees and only as a secondary line of operation. For example, three of the banks in that group fully own and operate textile plants, mines and commercial fleet respectively. Consequently, substantial portion of their capital is tied to activities other than banking. Again, some of them are founded with the sole purpose of serving special economic and/or social goals by providing credit to certain sectors of the economy, such as, agriculture, tourism, housing, etc.

Banks included in the other three groups are owned or controlled by private investors and they are all commercial banks operating under provisions of TLB. The main difference between the second and third groups is the amount of equity capital employed. TLB requires a bank to have a

minimum equity capital of TL 2 million,[13] but makes an exception in the case of local banks which have no branches and which are founded in a locality with a population of less than 60 thousand. Minimum equity capital requirement for such banks is TL 500,000.[14] These local banks, in most cases, either eventually increase their equity capital to TL 2 million and thus become a national bank, or sooner or later close up their operations if they cannot manage to grow.

Foreign banks are owned or controlled by foreign investors, and in addition to TLB, their operations are also governed by legislation dealing with foreign investments in Turkey. With the exception of one, they are all relatively small, operate only a few branches and are specialized in foreign trade transactions.

Banks grouped under the heading of Other National Banks are also commercial banks and their main line of operation covers accepting deposits and extending short-term credit to business. They also furnish banking services, such as, foreign trade transactions, foreign exchange, collection on bills receivable, safety boxes, etc.

The Central Bank of the Republic of Turkey is the only institution authorized to print legal-tender currency in

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13. TLB. Article 6.

14. TLB. Provisional Article 2.

Turkey, and together with the Treasury, regulates the monetary policy of Turkey.

One state owned and two privately owned development banks do not accept deposits and extend intermediate- and long-term credit to public and private enterprises.

At the end of 1970, total equity capital employed by all the 47 banks was close to TL 8 billion.[15] (1 US $ is the equivalent of 14 Turkish Liras.) This capital was distributed among the various groups of banks as follows.

	Equity Capital (% of Total) 1970
1. Banks Founded by Special Laws	64.84
2. Development Banks	16.51
3. Other National Banks	14.25
4. Central Bank	2.95
5. Foreign Banks	1.39
6. Local Banks	0.06

(Source: BAT, Publication No.43)

While the banks founded by special legislation share more than half of the total equity capital among themselves, distribution of total deposits amounting to more than TL 41 billion at the end of 1970[16] presents a different picture.

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15 and 16. See Appendix.

	Deposits Held (% of Total) 1970
1. Other National Banks	51.25
2. Banks Founded by Special Laws	36.82
3. Central Bank	8.24
4. Foreign Banks	3.67
5. Local Banks	0.02
6. Development Banks	--

(Source: BAT Publication No. 43)

This difference between the two rankings, specifically in the case of Banks Founded by Special Laws and Other National Banks, is mostly due to the hybrid character of the former which has been briefly described in the preceding paragraphs.

Banking in Turkey can be generally described as 'branch banking' rather than 'unit banking'. With the exception of five local banks, three development banks, three national banks and two banks founded by special legislation, each of the other 34 banks had two or more branches operating at the end of 1970.

The Appendix provides a complete list of all the banks operating in Turkey at the end of 1970, together with the location of their head offices, year they were established, equity capital employed, total deposits held and total loans extended by each.

D. Relevant Legislation

Operations of all the banks in Turkey, with the exception of banks founded by special legislation, development banks and the Central Bank, are guided mainly by TLB, as amended. In addition to this law - dated 1958 and amended five times until the end of 1970,- Turkish Commercial Code, tax laws, labor and social security laws, foreign investment regulations, interministerial decrees and the decrees of the Central Bank (formerly, the decrees of the Committee Regulating Bank Credits,) all contain provisions affecting the operations of commercial banks. Some of the provisions relevant to this research are summarized below.

Foundation, Shares, Shareholders and Equity Capital

With the exception of banks founded by special laws, or those existing at the date of TLB coming into force, all banks in Turkey must be founded in the form of a joint stock company, with a minimum of 20 voting share-holders. At least 51 per cent of the stocks must be listed with the Securities Exchange. Par value of stocks issued may not exceed TL 1000.-, and in accordance with the Commercial Code it may not be less than TL 500.- either. The sum of paid-up capital and reserves after deduction of losses may not be less than TL 2 million. The amount of required minimum capital is increased in line with the population of the location. An exception was made in the case of unit local banks which operated in localities with a population of less than 60,000

when TLB came into effect. In their case, the minimum equity capital required was only TL 500,000.- Amount of equity capital to be allocated to branch offices also differs in accordance with the population.

Deposits

No person or legal entity in Turkey, other than those authorized by TLB or by special legislation, make it a profession to accept deposits. Banks are required to keep separate accounts for savings deposits, commercial deposits, official deposits and interbank deposits. Each group must be further classified as demand or time deposits. Owners of savings deposits are privileged creditors for an amount equalling 50 per cent of their deposits.

If total savings deposits that a bank holds exceeds the limits set by TLB, 50 per cent of this excess has to be deposited by that bank in a provision account with the Central Bank. These limits are set as ratios of savings deposits to equity capital, the latter being defined as the paid-up capital,plus, reserves, minus, losses.

Equity Capital TL Million	Ratio of Savings Deposits to Equity
2 to 5	7:1
5 to 10	8:1
10 to 25	10:1
25 to 50	12:1
More than 50	15:1

The rights of depositors to withdraw their deposits in cash at their convenience may not be curtailed or restricted in any way. However, the conditions agreed upon between the depositor and the bank regarding maturities and periods of notice are reserved.

The maximum rates of interest to be applied on deposits are set by the Central Bank.[17] These maximum rates of interest are as follows.

Type of Deposit	1961 to August '70 (Annual %)	After August '70 (Annual %)
Commercial, official and interbank. Demand and until 4 months (incl.)	2	1
Savings. Demand and until 4 months (incl.)	3	3
All deposits. 4 to 6 months (incl.)	4	4
All deposits. 6 months to 1 year (incl.)	5	6
All deposits. 1 year to 18 months (incl.)	6	9
All deposits. Over 18 months	6.5	9
Additional provision accounts Up to 1 year	4	4
Additional provision accounts 1 year and more	6.5	6.5

17. Prior to January 1970, by the Committee Regulating Bank Credits, hereinafter to be referred as CRBC.

Promotional Prizes

Banks, in order to stimulate savings, may organize prizes to be distributed exclusively to owners of savings deposits, by drawing of lots. The maximum annual amount, - a fixed sum, plus an amount equal to a percentage of savings deposits held by each bank - nature and type of such prizes are determined by the Central Bank.[18]

Liquidity and Reserve Requirements

The minimum ratio of liquid assets to short-term obligations to be maintained by banks is determined by the Central Bank.[19] This ratio has been 10 per cent between 1961 and 1970, inclusive. Central Bank also sets the lower limit of funds to be deposited by commercial banks with the Central Bank as an additional provision. This amount has been set as 20 per cent of total deposits, interbank deposits excluded, held by each bank.[20]

In addition to the reserve requirements set by the Turkish Commercial Code[21], and by their statutes, all banks operating in Turkey are required to set aside 5 per cent of their net income as 'provision for possible future losses'

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18 and 19. Prior to January 1970, by CRBC

20. Between 6/4/'64 and 12/1/'65, 'additional provision' for time deposits was 10 per cent.

21. 5 per cent of net income before tax, plus 10 per cent of net income after tax and after the compulsory dividend of 5 per cent.

until the total amount of such provisions equal their paid-up capital. Both the reserves required by the Commercial Code and the provisions for possible future losses have to be invested in government bonds.

Loans

Banks, with certain exceptions, may not extend to one person or legal entity, loans exceeding 10 per cent of the banks' equity capital. This limit is increased to 25 per cent in case of loans extended to industry, mining, public utilities, public works, transportation and for export. Furthermore, the total amount of loans extended by a bank to firms of which the bank is a share holder may not exceed 20 per cent of the bank's equity capital.

The maximum rates of interest to be applied on loans extended by banks are set by the Central Bank.[22] During the period 1961 to 1970, inclusive, these rates were between 3 to 12 per cent depending on the type and maturity of the loan. On most loans, maximum rate of interest was 10.5 per cent until August 1970, and 11.5 per cent since then. In addition to interest, banks may charge additional fees (commission) for services rendered in connection with loan transactions or for bank services other than extending loans. The rates of such commissions are also set by the Central Bank.[23]

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22 and 23. Prior to January 1970, by CRBC.

Investments

With certain exceptions, the total amount of funds invested by a bank in other enterprizes may not exceed 10 per cent of the bank's equity capital. On the other hand, firms, 20 per cent or more of whose capital is owned by a bank, may not invest in the stock of that bank.

Trading in Goods and in Immovables

Banks are not allowed to purchase and sell goods for commercial purposes. The purchase and sale of gold in coins or in ingots are exempt from this requirement. Furthermore, with the exception of some of the banks founded by special laws, they generally may not, for commercial purposes, buy or sell immovable properties or accept mortgages on such. However, they may accept mortgage on immovable property as an additional collateral in case of unforseen risks connected with the collection of a loan.[24]

E. Scope of Study

To test the hypotheses stated in Section B of this chapter, only those banks which operated under similar, or at least comparable, economic, social and legislative conditions were included in the study. Consequently, difference in

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24. For additional information on legislation affecting the operations of Turkish banks, see, Erem, Faruk and Altıok, Akın, Bankacılar için Banka Hukuku Bilgisi, (Institute of Research on Banking and Commercial Law, Ankara) 1972.

their records of performance could be assumed to be due to differences in the way their funds were managed. Therefore, banks founded by special legislation were not included in the coverage of the research. For the same reason, three development banks and the Central Bank were also excluded. Thus, the research covered the operations of all the 32 national, local and foreign commercial banks operating in Turkey, under provisions set forth in TLB, as amended. Since every one of these banks do business in Turkey and under the same legislative framework, the term " Turkish commercial banks", as used throughout the study, covers all 32 of them, regardless of the fact that five are fully or partially owned by foreign investors. For the same reason, it was not deemed necessary to further stratify these banks by groups of national, local and foreign, when the hypotheses were tested.

The period covered by the study was 10 years, from 1961 to 1970, inclusive. Ten years was thought to be long enough to normalize earnings and other numerical data. The choice of 1961 to 1970, inclusive, was considered to be appropriate, because it not only provided for the utilization of recent data, but also covered a period during which - with the exception of the last five months - the rates of interest applied to both deposits and loans did not change.

F. Methodology

The objective of the study and the related hypotheses stated in Sections A and B of this chapter imply a set of questions to be answered during the course of the research. This set of questions includes the following.

1. Did the rates of profitability, defined as reported profits over equity capital, of commercial banks in Turkey show significant dispersion?
2. What were the principal determinents of the profitability of these commercial banks?
3. How did these banks try to resolve the conflict between safety and profitability in the employment of their funds?
4. What types of loans did they extend?
   Did they tend to serve certain types of customers?
   Why?
5. Was there any relationship between the types of loans extended and the size and location of a bank?
6. What was the composition of deposits they held?
7. What were the principal sources of their income?
8. What were their principal cost items? To what degree these costs varied with the change in their volume of operations?

9. Which of their three sets of operations, namely, lending, investing and banking services, contributed more to their profits?

10. Was there any relationship between the cost of doing business and the size of a bank?

11. What were the growth rates of their tangible assets and equity capital? Was there any relationship between their rate of growth and their profits?

12. What was their policy with respect to 'branching'? What, if any, was the relationship between the number of branches they operated and their profitability?

13. What were the significant effects of the existing legislation on the profitability of commercial banks?

14. What were the effects of the attitude of the share holders on the financial policies of these banks?

15. What were the effects of the promotional prizes on the performance of commercial banks?

Since most of the ratios and some of the statistics relevant to this research were not readily available, considerable time and effort were spent on these computations. However, it should be noted that it was not the purpose of this study to present a set of statistical data just for the sake of filling this gap, although even that much of the work by itself should be interesting to the executives of commercial banks. Rather, the data compiled and

the ratios computed were utilized within the statistical techniques used to test the relationships and differences in the performance of commercial banks.

Quantitative Analysis

1. A substantial part of the quantitative analysis was dynamic. The reason behind this was that it was thought to be more meaningful to find out what changes had taken place over the period covered than what had happened on the average. Therefore, annual rates of growth (or change) were computed for relevant sets of performance factors for each bank over the period covered by the study. The formula used for these computations was:

$$r = \sqrt[n]{\frac{T}{S}} - 1$$

where (r) was the rate of annual change, (T) and (S), terminal and starting values respectively, with (n) number of years. Three-year averages were used for terminal and starting values to avoid possible biases that could be introduced by unusual years. Therefore (n) was 7 years in most cases, representing the period between the middle years of the terminal and starting values.

2. Banks were ranked from high to low according to the rates of growth they achieved in each of the performance factors. These rankings were utilized for rank correlation analysis whenever necessary.

3. Simple and weighted arithmetic means were computed for each performance factor and for each bank over the period covered. These means were used for the statistical analysis when such was utilized.

4. To test the first part of the principal hypothesis dealing with the existence of significant differences in the profitability rates of commercial banks, chi-squares were computed for each of the 10 years covered by the study. The chi-square criterion was used to measure the goodness of fit - or the compatibility - of the rate of return on equity of each bank, with the mean rate of return on equity of all the banks included in the research. The individual rates of return constituted the observed frequencies, and the mean rate of return for all banks was utilized as the expected frequency common to all. If the chi-squares computed were not small, that is, the fits were not good, it would mean that the observed frequencies representing the individual rates of return on equity did not constitute a population having a uniform distribution. In other words, it would signify no close bunching of the rates of return and would therefore indicate a statistically significant dispersion which could not be attributed to chance.

Since it was feasible to collect, compute and utilize data on all the banks included in the study, there was

no need to use random samples for the test, and therefore, observed frequencies constituted the whole universe. It must be noted that the purpose for using the chi-square criterion was not to measure the impact of sampling variations, but to test the significance of dispersion, if any, of individual profitability rates from the mean rate of profitability for all banks. Therefore, utilization of the whole universe instead of samples, and the resulting relaxation of the requirement of randomness were of minor significance, and would not affect the rationale for using this statistical test of association.

5. The principal technique used to test the secondary hypotheses and the remaining part of the principal one, was a statistical comparison of the performances of commercial banks. Banks were divided into two groups of "high" and "low" performance, using the mean rate of performance as the dividing line between the two groups. Then the significance of the relationship between the means of the two groups was tested statistically for each relevant performance factor. The null hypothesis that the means of the two groups were equal, or not significantly different, indicated that a certain performance factor was not the cause of the difference between the two groups. On the other hand, when the null hypothesis was rejected, that is, a

statistically significant difference between the means of two groups was observed, the indication was that the performance factor being tested was directly or indirectly the cause of the difference.

For two- or one-tailed significance tests, Student-t distribution was utilized, and the equality of the variances was checked by F-tests, at $F_{0.995}$ level. Results were also checked by simple or rank correlation coefficients.

During the course of the significance tests, it was again feasible to handle data on all the banks included in the study. Therefore, the whole universe of commercial banks, and not random samples, was used for the tests. The null hypothesis submitted to testing was that the mean performance levels of the "high" and "low" groups were identical, that is, from the same underlying population. If the null hypothesis was rejected, and thus, the tests disclosed significant differences between the means of the two groups, this would indicate that these two groups were not from the same population. In fact, when such was the case, each group could be defined as a separate universe by itself.

Again it should be noted that the objective of the analysis was not to test the relationship of the mean

of a sample with that of the population from which it was randomly selected. The Student-t distribution was used to test whether or not the two groups of banks, designated as "high" and "low", constituted two separate and different populations with unequal means. Therefore, the relaxation of the randomness requirement could not affect the conclusive nature of the results.

6. Whenever it seemed useful, findings were summarized in tables and/or figures for initial and visual observation.

7. Since it was not the purpose of this study to provide the reader with banking statistics or ratios, most of such data was not included in the presentation of the findings, rather, they were utilized within the tests made, and only the summaries of the results were presented.

Qualitative Analysis

At a very early phase of the research it was realized that quantitative data would not suffice to complete the analysis. For example, some of the 15 questions outlined at the beginning of Section F of this chapter could not be answered in part or in whole by quantitative tests. Therefore, interviews were held with 15 top and middle level executives of 10 banks representing 87 per cent of personnel employed, 83 per cent of branches operated,

82 per cent of equity capital owned, 93 per cent of deposits held and 92 per cent of loans extended by all the banks included in the study.[25] These interviews were held with the intention of discussing the results of the quantitative analysis, and gathering information which could not be derived from numerical data.

G. Source of Data

The principal source of data used in computing the ratios and trends were the yearly publications of BAT. These publications furnished the year-end financial statements of all the banks operating in Turkey. They also contained other relevant information, such as, number of personnel employed, number and location of branches, names and positions of top executives, etc. Interviews held with the executives of commercial banks, as well as, with the officials of BAT furnished information to support or amend the findings, and to explain some of the terminology.

Other appropriate sources of information, such as, the related issues of the Official Gazette, relevant papers and books on different aspects of the Turkish banking system were also utilized whenever it was deemed necessary.

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25. Based on 1970 figures.

H. Limitations of the Study

Anyone who attempts to make an empirical study in the field of finance in Turkey is seriously handicapped by two major roadblocks. One is the absence of an active capital market, and the other is the lack of efficient disclosure requirements. In the case of banks, the second problem is somewhat resolved by TLB which requires all banks to submit quarterly summaries to the Ministries of Public Finance and of Commerce, as well as, to the Central Bank. Banks, also have to publish their year-end balance sheets and income statements in at least two daily papers, one of which must be the Official Gazette. In addition, they must submit monthly totals of deposits and loans to the Central Bank.[26] However, only the year-end financial statements are available to the public. It would have been more meaningful to use monthly averages instead of year-end figures in the study. Nevertheless, since the emphasis is on a comparative evaluation, this limitation did not have any serious distorting effect on the results.

On the other hand, the first problem could not be avoided. By law, the stocks of a bank have to be listed with the Securities Exchange.[27] However, the so called Securities Exchange in Turkey exists almost only in name; and in the

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26. TLB Article 51.

27. TLB Article 4.

absence of active stock market transactions, price quotations are either non-existent or do not reflect the current free market value of the stocks. Therefore, out of necessity rather than willful negligence, no attempt was made in the study to analyze the impact of the findings on the stock prices of banks, and no market values were utilized.

A list of the bank executives interviewed is filed with the work papers. However, upon their explicit requests, their names or positions are not mentioned in the study. Furthermore, some of their statements are their own personal opinions, and due to their nature, cannot be supported by physical evidence.

CHAPTER II

FINDINGS

PART I. QUANTITATIVE ANALYSIS

A. Profitability

Over the period of 1961 to 1970, inclusive, 10-year average rates of profitability - defined as profit before tax over equity capital - for the 32 banks covered by the study, varied between minus 93.7 per cent and plus 53.7 per cent, with four banks having negative ratios. When bank N-17[1], which showed losses between 1961 and 1966, as well as in 1970, and which had negative equity capital since 1965[2] was excluded from the group, this difference in profitability rates equalled to 57.7 percentage points, this time the lowest rate being minus 4.0 per cent. Table 1 gives a complete list of 10-year average rates of profitability for all the banks included in the research.

The five most profitable banks over the period had average rates of return above 25 per cent. Four of these were foreign banks and one, N-15, was partially owned by foreign investors. One local and five national banks showed average profitability rates between 15 and 25 per cent. Profitability rates of one local, one foreign and

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1. Throughout the rest of the study, banks will be referred to by their symbols (See Appendix)

2. Bank N-17 showed positive equity capital in its year-end financial reports. However, when annual losses were deducted from its equity capital, as required by TLB, the resulting equity capital was negative.

three national banks were between 10 and 15 per cent. Of the rest, two local and two national banks had negative rates of return on equity, while the average profitability of the other 12 banks varied between 0.7 and 8.5 per cent.

Figure 1, which pictures the above findings, shows no close bunching of the average rates of profitability over the period covered by the research. The weighted average rate of return on equity for all the 32 banks over the same period was 17.0 per cent. If the majority of the banks had ratios close to that mean, it could be claimed that there was no significant dispersion in the profitability of commercial banks in Turkey. However, a visual observation of Table 1 and Figure 1 did not seem to support such a claim.

The chi-square criterion was used in order to test the first part of the principal hypothesis statistically. Observed frequencies were the individual rates of return on equity, and expected frequencies were identical for all banks, represented by the mean rate of return for all banks. The null hypothesis was that χ^2 computed would be less than the given value for given degrees of freedom and at 0.01, 0.02 or 0.05 level of significance. In other words, if the χ^2 computed was higher than that given value, it could be claimed that there was a statistically significant dispersion in the profitability of Turkish commercial banks.

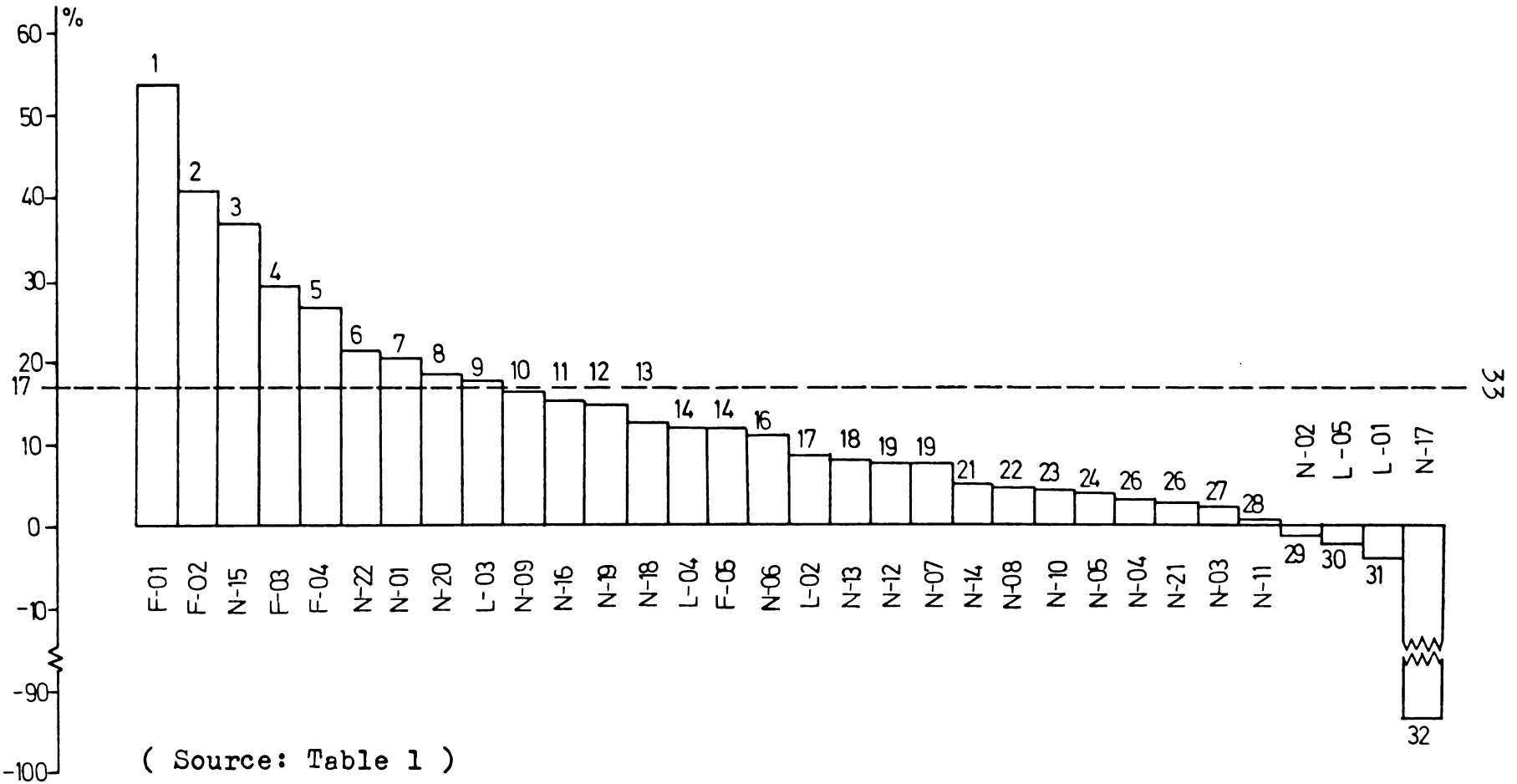
TABLE 1

Profitability Rates of Commercial Banks in Turkey
10- Year Averages (1961-1970)+

Bank	Rate (%)	Rank	Bank	Rate (%)	Rank
N-01	20.3	7	N-17	-93.7	32
N-02	- 1.6	29	N-18	12.3	13
N-03	2.6	27	N-19	14.7	12
N-04	3.0	25	N-20	18.3	8
N-05	3.9	24	N-21	2.8	26
N-06	10.9	16	N-22	21.2	6
N-07	7.8	11	L-01	- 4.0	31
N-08	4.8	22	L-02	8.5	17
N-09	16.1	10	L-03	17.7	9
N-10	4.6	23	L-04	11.9	14
N-11	0.7	28	L-05	- 2.2	30
N-12	7.8	19	F-01	53.7	1
N-13	8.3	18	F-02	40.7	2
N-14	5.1	21	F-03	29.1	4
N-15	36.9	3	F-04	26.7	5
N-16	15.2	11	F-05	11.9	14

(Source: Computed from data in BAT Publications, Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43.)

+ 9-year average for N-02 and 7-year average for N-15. These banks started their operations in 1962 and 1964 respectively.



(Source: Table 1)

FIGURE 1. Ranking of Turkish Commercial Banks According to Profitability Rates. (1961-1970)

Following modifications were made in order to avoid distortion in the computation of the chi-square values.

1. Bank N-17 was excluded from the sample due to its negative equity.
2. Losses were included as zero profits.
3. Frequencies with values less than five were added together.

Chi-square values for each of the 10 years, as well as, for the 10-year average profitability showed significant dispersion at 0.01 level of significance. Table 2 gives the χ^2 values for the profitability of commercial banks during the period covered by the study. Thus, the first part of the principal hypothesis stating that commercial banks in Turkey which did business under provisions of TLB, exhibited wide differences in profitability rates, was statistically proven to be true.

TABLE 2

Chi-square Values for Profitability Rates of Turkish Commercial Banks (1961-1970)

Year	Degree of Freedom	χ^2	Year	Degree of Freedom	χ^2
10-Year Aver.	20	233.09	1966	19	315.15
1961	21	275.01	1967	21	474.41
1962	17	217.48	1968	17	703.05
1963	19	191.64	1969	18	955.19
1964	18	197.36	1970	19	720.55
1965	20	50.56			

(Note: All χ^2 values were significant at 0.01 level of significance)

Another interesting point investigated was the relationship between the percentage share of each bank of the total equity owned by all banks and the percentage share of each bank of the total profits earned by the same banks. If there was a significant and positive correlation between these two sets of shares, it could be claimed that the distribution of the total profits among Turkish commercial banks was "fair" with respect to the relative sizes of their equity capital. Since "profits" and "equity" were the numerators and the denominators, respectively, of the "profitability" rates used earlier to test the principal hypothesis, this second test could be used to support the previous finding.

The result of this second test was quite the opposite of what would be expected after the first test. A correlation coefficient of 0.98 indicated an almost perfect positive correlation between the 10-year average proportional shares of profits and equity capital. If this "fair" distribution of profits were to be interpreted as a proof that the profits of these banks did not show any significant dispersion relative to their equity, this finding would be highly contradictory to the results of the first test. However, a further investigation showed that the two results were not incompatible, and the discrepancy was actually due to the fact that a small number of banks which owned relatively big proportions of the

total equity, had "fair" shares of profits. To be more specific, banks N-01, N-20 and N-22 which together held 56.82 per cent of the total equity owned by all the banks in the group, received 64.02 per cent of the total profits earned by the same banks, the ratio between the two proportions being 1: 1.13. Since a ratio of 1:1 would indicate a perfectly fair distribution, this sharing of profits by the three banks could be classified as reasonably fair. On the other hand, quite a number of smaller banks did not have such fair proportions of profits. For example, banks N-15, F-01, F-02 and F-03, which together held 4.72 per cent of the total equity received 11.09 per cent of the total profits, the ratio being 1:2.35. Again, banks N-02, N-04, N-08 and N-14 which together owned 11.03 per cent of the total equity, earned only 1.92 per cent of the total profits, this time the ratio being 1:0.17. Table 3 gives a complete list of the 10-year average proportions of total equity and profits held by each bank, as well as, the percentage ratios of the two sets of proportions. A ratio of 100 per cent indicates a perfectly fair distribution of profits, whereas, ratios of less or more than 100 per cent would belong to banks which had less or more than fair shares of the total profits, respectively.

Since the big banks, although few in number, had very large shares of both the equity and profits and since they had a fair distribution of profits, the coefficient of correlation

between the two sets of proportions, due to the weight given by the size of the big banks, turned out to be very high, spuriously indicating a nondisparity of earnings for the whole group. This distortion due to the weight given by a small number of banks was avoided when, instead of absolute percentages, ratios between the two sets of proportions were used to test the hypothesis. The chi-square test using these individual ratios as the observed frequencies and the arithmetic mean of all the ratios as the expected frequency, disclosed a very significant dispersion among the proportions of profits shared by commercial banks, relative to their shares of the total equity.[3] This result, which strongly supported the result of the first test, also proved the fallacy of using averages for the commercial banking system in Turkey, without first taking care of the distorting effects of the weight given by the few relatively big banks.

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3. $\chi^2 = 2204.22$. Significant at 0.01 level and 25 degrees of freedom.

TABLE 3

Proportional Shares of Each Turkish Commercial Bank of Total Equity Capital and Total Profits

10-Year Averages (1961-1970)+

Bank	Share of Total Equity (%)	Share of Total Profits (%)	Ratio (%)
N-01	7.41	8.78	118.49
N-02	3.93	0.00	0.00
N-03	0.31	0.05	16.13
N-04	1.22	0.22	18.03
N-05	0.47	0.11	23.40
N-06	0.72	0.46	63.89
N-07	0.82	0.37	45.12
N-08	2.42	0.68	28.10
N-09	0.55	0.51	92.73
N-10	0.34	0.09	26.47
N-11	0.87	0.03	3.45
N-12	0.84	0.39	46.43
N-13	2.67	1.30	48.69
N-14	3.46	1.02	29.48
N-15	1.64	3.53	215.24
N-16	5.45	4.86	89.17
N-17	0.05	0.00	0.00
N-18	4.46	3.19	71.52
N-19	1.33	1.14	85.71
N-20	34.99	37.37	106.80
N-21	0.84	0.14	16.67
N-22	14.42	17.87	123.93
L-01	0.08	0.00	0.00
L-02	0.08	0.04	50.00
L-03	0.19	0.20	105.26
L-04	0.09	0.07	77.78
L-05	0.05	0.00	0.00
F-01	1.01	3.19	315.84
F-02	1.25	2.97	237.60
F-03	0.82	1.40	170.73
F-04	5.80	9.04	155.86
F-05	1.40	0.97	69.29

(Source: Computed from data in BAT Publications, Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43.)

+ 1962-1970 for N-02 and 1964-1970 for N-15

B. Growth vs. Profits

In order to test secondary hypothesis No. 1, which in turn, could help to test, in part, the principal hypothesis, annual rates of change in profits before tax, in equity, and in net tangible assets were computed for all the banks covered by the study. Table 4 shows these rates, as well as, the ranking of the banks in accordance with the same.

"Growth" of a bank could either mean "growth in equity capital" or "growth in net tangible assets". The rank correlation coefficient (r') between the former and the growth in profits before tax turned out to be 0.29, not significant at a level of significance of 0.05.[4] On the other hand, r' equalled to 0.50 between the latter and the growth in profits before tax, significant at 0.01 level. This might seem contradictory, especially since r' between the growth in equity capital and growth in net tangible assets was 0.69, significant at 0.01 level. However, when the sequence of events leading to profits is considered, above relationships turn out to be normal. Equity capital, by itself, does not produce profits, but it directly affects the amount of savings deposits which

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4. Throughout the research $t = r' \cdot \sqrt{\frac{n-2}{1-r'^2}}$ was used for significance test of the coefficients of rank correlation, where n-2, degree of freedom, was 30.

a bank may hold (p.14). Savings deposits constitute the major part of all deposits held by banks under consideration,[5] and deposits are the main source of loans extended by a commercial bank. Bank profits depend heavily on loans extended, and the latter form a substantial part of the net tangible assets. Therefore, the relationship between tangible assets and profits is more direct than that between equity capital and profits. Hence, the difference among the correlation coefficients. Thus, it was found more meaningful to define "growth" as "growth in net tangible assets" in this study.

Annual rates of change in net tangible assets and in profits before tax were plotted on Figure 2, horizontal axis showing the percentage changes in the former, and vertical axis showing the percentage changes in the latter.

Majority of the banks bunched within 0 and + 35 per cent changes in net tangible assets, and between -10 and + 35 per cent changes in profits, the area being represented by the rectangle ACDF on Figure 2. In order to be free of possible biases that could be introduced by a few too low or too high rates of change, only the 23 banks within the rectangle were assumed to be truly representing the Turkish commercial banking system. Those banks were N-01,

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5. 68 per cent in 1970. BAT Publication No. 43.

N-03, N-05, N-06, N-07, N-09, N-10, N-12, N-13, N-14, N-16, N-18, N-19, N-20, N-21, N-22, L-02, L-03, F-01, F-02, F-03, F-04 and F-05. The average annual change in net tangible assets for the 23 banks was 15.2 per cent. Therefore, 15.2 per cent was used as the dividing line between "high" growth and "low" growth banks, rectangle BCDE representing the former and rectangle ABEF representing the latter groups.

Fourteen banks labeled as "high" banks were N-01, N-03, N-09, N-10, N-13, N-14, N-16, N-18, N-19, N-20, N-22, L-03, F-02 and F-04. Included in the "low" group were banks N-05, N-06, N-07, N-12, N-21, L-02, F-01, F-03 and F-05.

TABLE 4

Annual Rates of Change of Turkish Commercial Banks in Profits before Tax, Equity, and Net Tangible Assets (1961-1970)+

Bank	Profit bef.Tax		Equity		N.T. Assets	
	Rate of Change(%)	Rank	Rate of Change(%)	Rank	Rate of Change(%)	Rank
N-01	25.2	8	12.7	6	33.1	3
N-02	311.6	1	6.5	15	22.7	6
N-03	-4.0	26	5.8	16	18.0	13
N-04	167.8	3	5.8	16	13.2	21
N-05	1.3	24	0.0	30	0.7	31
N-06	24.8	9	4.3	18	11.0	25
N-07	4.7	22	9.9	12	11.6	22
N-08	-45.4	30	8.3	13	17.1	15
N-09	7.8	17	3.7	21	16.5	16
N-10	-8.2	28	12.0	8	21.5	7
N-11	-162.5	32	2.9	23	11.4	24
N-12	-9.4	29	0.9	27	2.3	29
N-13	9.1	16	4.3	18	21.3	9
N-14	5.6	21	7.3	14	18.0	13
N-15	69.0	5	11.2	10	33.2	2
N-16	15.3	13	10.1	11	20.9	10
N-17	169.8	2	-222.1	32	8.0	27
N-18	20.3	11	13.8	4	25.2	5
N-19	9.6	15	12.4	7	18.8	11
N-20	21.6	10	16.1	3	18.2	12
N-21	0.6	25	3.5	22	8.6	26
N-22	30.9	7	16.2	2	21.5	7
L-01	-80.2	31	-4.4	31	-8.9	32
L-02	-4.0	26	1.7	26	2.1	30
L-03	6.8	20	2.9	23	15.4	18
L-04	113.1	4	23.1	1	32.4	4
L-05	51.3	6	2.5	25	37.6	1
F-01	19.5	12	0.1	29	7.6	28
F-02	13.2	14	4.0	20	15.6	17
F-03	7.3	19	0.2	28	14.7	20
F-04	3.0	23	13.0	5	15.3	19
F-05	7.5	18	11.9	9	11.5	23

(Source: Computed from data in BAT Publications, Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43)

+ 1962-1970 for N-02 and 1964-1970 for N-15.

FIGURE 2. Annual Rates of Change in Net Tangible Assets and Profits of Turkish Commercial Banks (1961-1970)

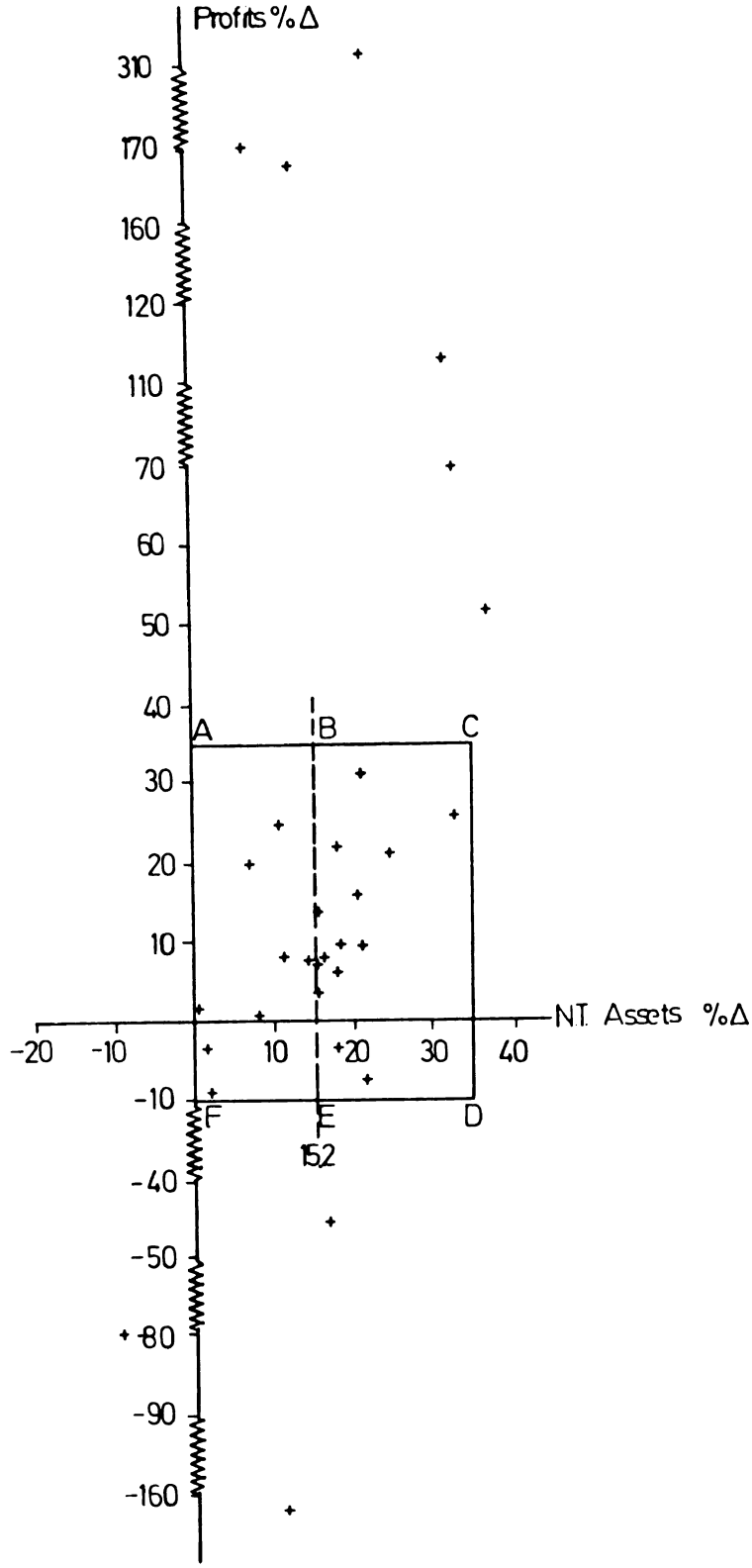
Profits %Δ
310
170
160
120
110
70
60
50
40
30
20
10
-10
-40
-50
-80
-90
-160
A
B
C
D
E
F
152
N.T. Assets %Δ
-20
-10
10
20
30
40

FIGURE 2.

The secondary hypothesis No. 1 could be accepted if the "high" growth banks would show equal or less growth in profits than the banks included in the "low" growth group. If, on the other hand, "high" banks also had significantly higher growth in profits, then the hypothesis would be rejected. In order to test this hypothesis, "Student-t distribution" was used.

The first test of significance was made to see whether the two groups labeled as "high" and "low" were significantly different from each other, that is, constituted two different populations with unequal means, in order to ensure that a comparison of the annual rates of change in their profits would be meaningful. The "t" value computed was 6.04, significant at 0.01 level of significance for 21 degrees of freedom.[6]

Having seen that the universes labeled as "high" and "low" had significantly different means of annual rates of change in size (or in net tangible assets), the next step was to compute the value of "t" for the annual rates

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6. $\bar{x}_1 = 20.0$ per cent, $\bar{x}_2 = 7.8$ per cent, $s_1^2 = 22.56$, $s_2^2 = 25.0$, $n_1 = 14$, $n_2 = 9$.

of change in the profits of the same groups. This time the "t" value was 1.18, not significant at 0.05 level of significance.[7] In other words, no significant difference was found between the growth rates of profits of the banks grouped as "high" growth and "low" growth banks. Therefore, the secondary hypothesis No. 1 stating, "the reported profits of the more rapidly growing commercial banks in Turkey have not increased more than those of commercial banks which have grown less or not at all," was statistically proven to be acceptable.

C. Size vs. Cost

The wording of secondary hypothesis No.2 implied a statical analysis. Nevertheless, both the statical and dynamical relationships between size and cost of Turkish commercial banks were investigated. To be consistent, size was again defined as the size of total net tangible assets. On the other hand, cost could be defined either as total expenses per unit (Turkish Lira) of net tangible assets or as total expenses per unit of total revenues. Both definitions of cost were utilized in the analysis. (See Table 5)

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7. $\bar{x}_1$ = 11.16 per cent, $\bar{x}_2$ = 5.81 per cent, s_1^2 = 118.44, s_2^2 = 116.18, n_1 = 14, n_2 =9

This hypothesis would be accepted if the cost of doing business was found to be significantly less at the bigger (high) banks than that at the smaller (low) banks. Therefore, for the statical analysis, the mean value of the 10-year average[8] net tangible assets for all banks was used as the dividing line between the "high" and "low" banks. Thus, six banks (N-01, N-16, N-18, N-20, N-22 and F-04) whose average net tangible assets were more than TL 462 million were labeled as "high" and the remaining 26 banks with average net tangible assets of less than TL 462 million were grouped as "low". The computed "t" value of 2.87 indicated a significant difference between the means of the two groups (or universes) at 30 degrees of freedom and 0.01 level of significance.[9]

Student-t distribution was utilized again to investigate the difference, if any, between the cost of doing business at the "high" and "low" bank groups. With the first definition of cost, that is, total expenses per TL of net tangible assets, "t" value was zero, due to identical mean cost (TL 0.076 expenses per TL 1.00 of net tangible assets)

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8. 9-year for N-2 and 7-year for N-15.

9. $\bar{x}_1$ = TL 0.908, $\bar{x}_2$ = TL.0.852, s_1^2 = 19777.3, s_2^2 = 15499.7, n_1 = 6, n_2 = 26.

of both universes. With the second definition of cost, namely, total expenses per TL of total revenues, "t" value of 0.097 was not significant at 0.05 level of significance although the mean cost was higher for the "high" banks. Therefore, both tests indicated no significant difference in cost between the "high" and "low" banks.

Twenty-three banks were included in the dynamical analysis, leaving out the nine banks with too high or too low annual rates of growth in net tangible assets or costs, to avoid possible biases, (See Figures 3-a and 3-b). The mean rate of change in net tangible assets for these 23 banks over the period covered was 16.2 per cent. Banks N-02, N-03, N-08, N-09, N-10, N-13, N-14, N-16, N-18, N-19, N-20 and N-22 had annual growth rates in net tangible assets of more than 16.2 per cent and, therefore, were labeled as "high". The remaining 11 banks, namely, N-04, N-06, N-07, N-17, N-21, L-03, F-01, F-02, F-03, F-04 and F-05 , had less than the mean rate of growth, and were grouped together as "low" growth banks. A "t" value of 6.78 indicated a significant difference between the means of the two universes at 21 degrees of freedom and 0.01 level of significance.[10]

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10. $\bar{x}_1$ = 20.0 per cent, $\bar{x}_2$ = 12.0 per cent, s_1^2 = 6.8, s_2^2 = 9.3, n_1 = 12, n_2 = 11.

TABLE 5
Size and Cost of Turkish Commercial Banks
(1961 - 1970)+

Bank	Net Tangible Assets		Cost Definition 1		Cost Definition 2	
	Ann. Aver. TL Mil.	Ann. Change (%)	Ann. Aver. TL 1/100	Ann. Change (%)	Ann. Aver. TL 1/100	Ann. Change (%)
N-01	1446	33.1	7.2	- 4.0	90.8	0.1
N-02	274	22.7	8.3	0.0	102.1	- 8.2
N-03	5	18.0	9.2	2.4	88.6	5.2
N-04	71	13.2	10.3	- 0.9	96.5	- 1.5
N-05	4	0.7	4.6	-11.7	57.2	- 5.0
N-06	25	11.0	8.7	2.4	79.3	- 1.7
N-07	38	11.6	10.8	4.7	90.0	1.3
N-08	150	17.1	10.1	0.9	94.7	2.5
N-09	19	16.5	5.8	1.7	63.7	4.0
N-10	18	21.5	9.0	0.9	93.6	0.2
N-11	12	11.4	3.1	-15.4	90.1	28.5
N-12	10	2.3	10.0	5.5	67.7	6.2
N-13	174	21.3	8.9	- 1.5	90.6	0.6
N-14	271	18.0	9.0	- 3.7	95.0	0.4
N-15	259	33.2	5.4	- 7.6	76.4	-15.1
N-16	1062	20.9	8.3	- 3.3	93.6	0.0
N-17	16	8.0	11.1	- 4.0	124.6	-12.0
N-18	616	25.2	8.0	- 3.3	92.6	0.1
N-19	64	18.8	7.6	1.3	77.4	3.2
N-20	5891	18.2	7.6	- 1.2	90.7	- 0.4
N-21	55	8.6	9.0	- 3.7	96.6	0.2
N-22	2644	21.5	6.9	- 2.5	89.2	- 0.9
L-01	1	- 8.9	10.3	5.3	117.0	4.9
L-02	1	2.1	6.1	6.3	54.9	5.4
L-03	5	15.4	6.4	0.0	56.3	3.7
L-04	2	32.4	7.1	- 6.8	60.8	-16.2
L-05	1	37.6	2.8	-25.3	133.6	- 5.6
F-01	177	7.6	5.3	- 4.2	70.4	- 4.0
F-02	155	15.6	5.9	- 3.8	71.2	- 0.7
F-03	135	14.7	5.7	- 7.5	81.8	- 0.3
F-04	1075	15.3	7.5	0.0	87.7	1.6
F-05	93	11.5	7.0	- 3.3	84.3	0.6

(Source: Computed from data in BAT Publications Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43)

+ 1962-1970 for N-02 and 1964-1970 for N-15.

FIGURE 3-a. Annual Rates of Change in Net Tangible Assets and Cost (Definition 1) of Turkish Commercial Banks (1961-1970)

FIGURE 3-b. Annual Rates of Change in Net Tangible Assets and Cost (Definition 2) of Turkish Commercial Banks (1961-1970)

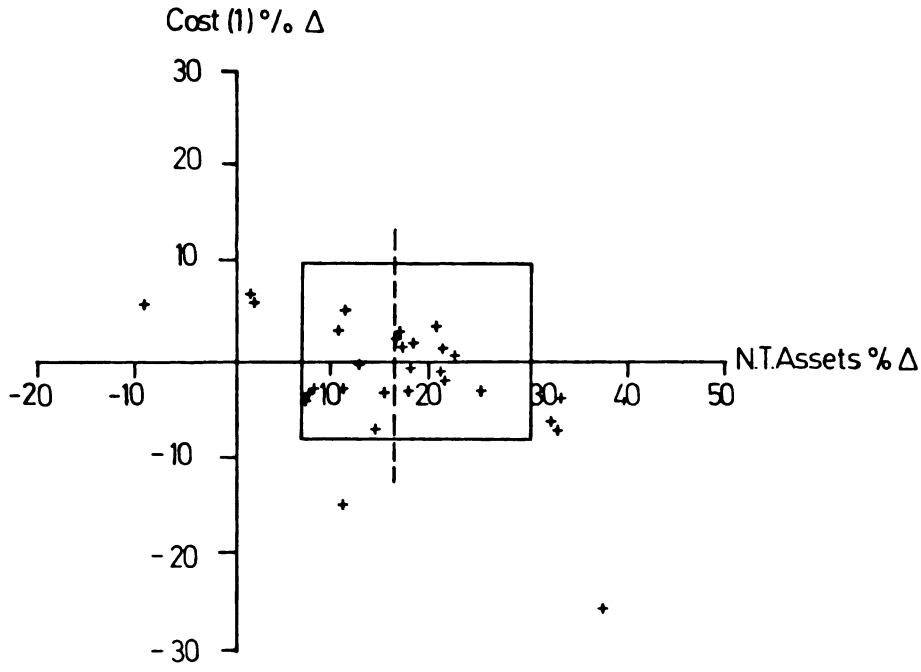

FIGURE 3-a.

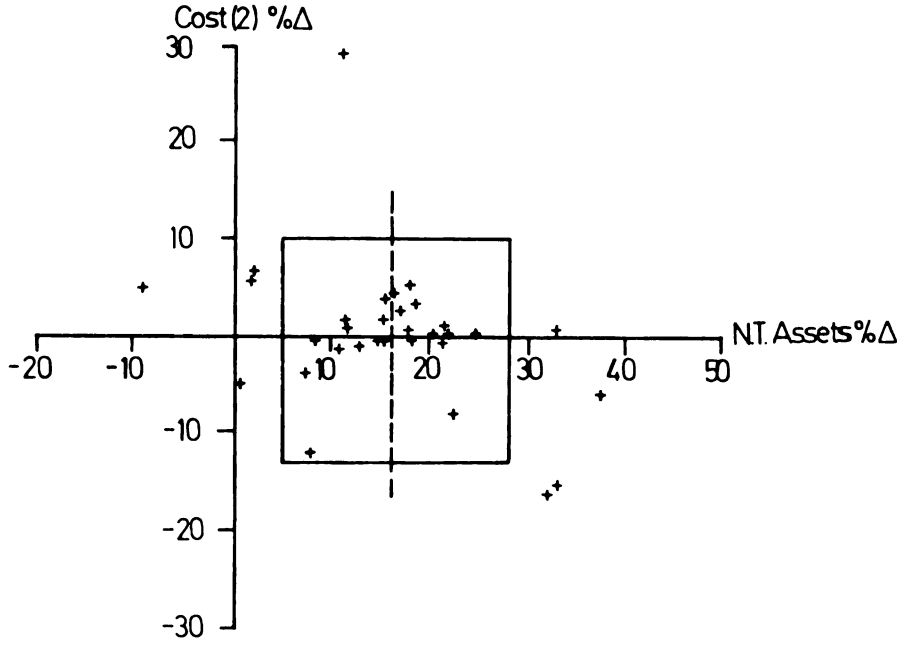

FIGURE 3-b.

Again, both definitions of cost and Student-t distribution were utilized to investigate the significance of difference in the annual rates of change in cost of the two groups. With both definitions, annual mean rate of decrease in cost of the "high" growth banks was less than the annual mean rate of decrease in cost of the "low" growth banks. In other words, "low" growth banks were decreasing their cost more than the "high" growth banks. However, "t" values of 0.917 and 1.597 for the first and second definitions of cost, respectively, showed this difference to be insignificant at 21 degrees of freedom and 0.05 level of significance.[11]

Therefore, secondary hypothesis No. 2 was rejected as the results of both the statical and dynamical analyses indicated that:

1. The cost of doing business at bigger banks was neither lower nor higher than that at the smaller banks.

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11. For the first definition of cost, ie., total expenses per TL of net tangible assets: $\bar{x}_1 = -0.7$ per cent, $\bar{x}_2 = -1.8$ per cent, $s_1^2 = 4.7$, $s_2^2 = 12.0$, $n_1 = 12$, $n_2 = 11$. For the second definition of cost, ie., total expenses per TL of total revenues: $\bar{x}_1 = 0.6$, $\bar{x}_2 = -1.8$, $s_1^2 = 11.3$, $s_2^2 = 14.8$, $n_1 = 12$, $n_2 = 11$.

2. The cost of doing business at "high" growth banks was not decreasing at a higher or a lower rate than that at the "low" growth banks, over the period covered by the study.

D. Number of Branches vs. Profits

The secondary hypothesis No.3 implied that putting new branches into operation did not increase but decreased their profits. Therefore, the hypothesis would be accepted if the profits of the banks with more growth in the number of their branches, decreased more or increased less than the profits of the banks with less or no growth in their number of branches. Utilizing the same technique used for the previous tests, 23 banks were selected (See Table 6 and Figure 4) leaving out the banks with too high or too low annual rates of growth in either of the two factors, namely, number of branches and profits. The mean rate of annual growth in the number of branches for the 23 banks was 4.9 per cent. Therefore, banks with higher rates of growth than 4.9 per cent were grouped together as "high" growth banks and the others as "low" growth banks. Included in the "high" group were banks N-01, N-03, N-10, N-13, N-14, N-16, N-18, N-20, N-22 and F-04. "Low" growth banks were N-05, N-06, N-07, N-09, N-12, N-19, N-21, L-02, L-03, F-01, F-02, F-03 and F-05. Eight banks in the "low" group had no changes in the number of their branches during the period covered by

TABLE 6

Annual Rates of Change in Number of Branches and Profits of Turkish Commercial Banks (1961 - 1970)+

Bank	No. of Branches-Annual Change(%)	Profits-Annual Change (%)	Bank	No. of Branches-Annual Change(%)	Profits-Annual Change (%)
N-01	18.3	25.2	N-17	-8.2	169.8
N-02	8.8	311.6	N-18	13.2	20.3
N-03	10.4	-4.0	N-19	0.0	9.6
N-04	0.0	167.9	N-20	7.3	21.6
N-05	0.0	1.3	N-21	2.8	0.6
N-06	1.6	24.8	N-22	10.3	30.9
N-07	0.9	4.7	L-01	0.0	-80.2
N-08	8.5	-45.4	L-02	0.0	-4.0
N-09	-4.0	7.8	L-03	0.0	6.8
N-10	10.4	-8.2	L-04	0.0	113.1
N-11	0.0	-162.5	L-05	0.0	51.3
N-12	0.0	-9.4	F-01	0.0	19.5
N-13	11.0	9.1	F-02	0.0	13.2
N-14	9.4	5.6	F-03	0.0	7.3
N-15	16.8	69.0	F-04	8.6	3.0
N-16	7.1	15.3	F-05	4.9	7.5

(Source: Computed from data in BAT Publications, Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43)

+ 1962-1970 for N-02 and 1964-1970 for N-15.

FIGURE 4. Annual Rates of Change in Number of Branches and Profits of Turkish Commercial Banks (1961-1970)

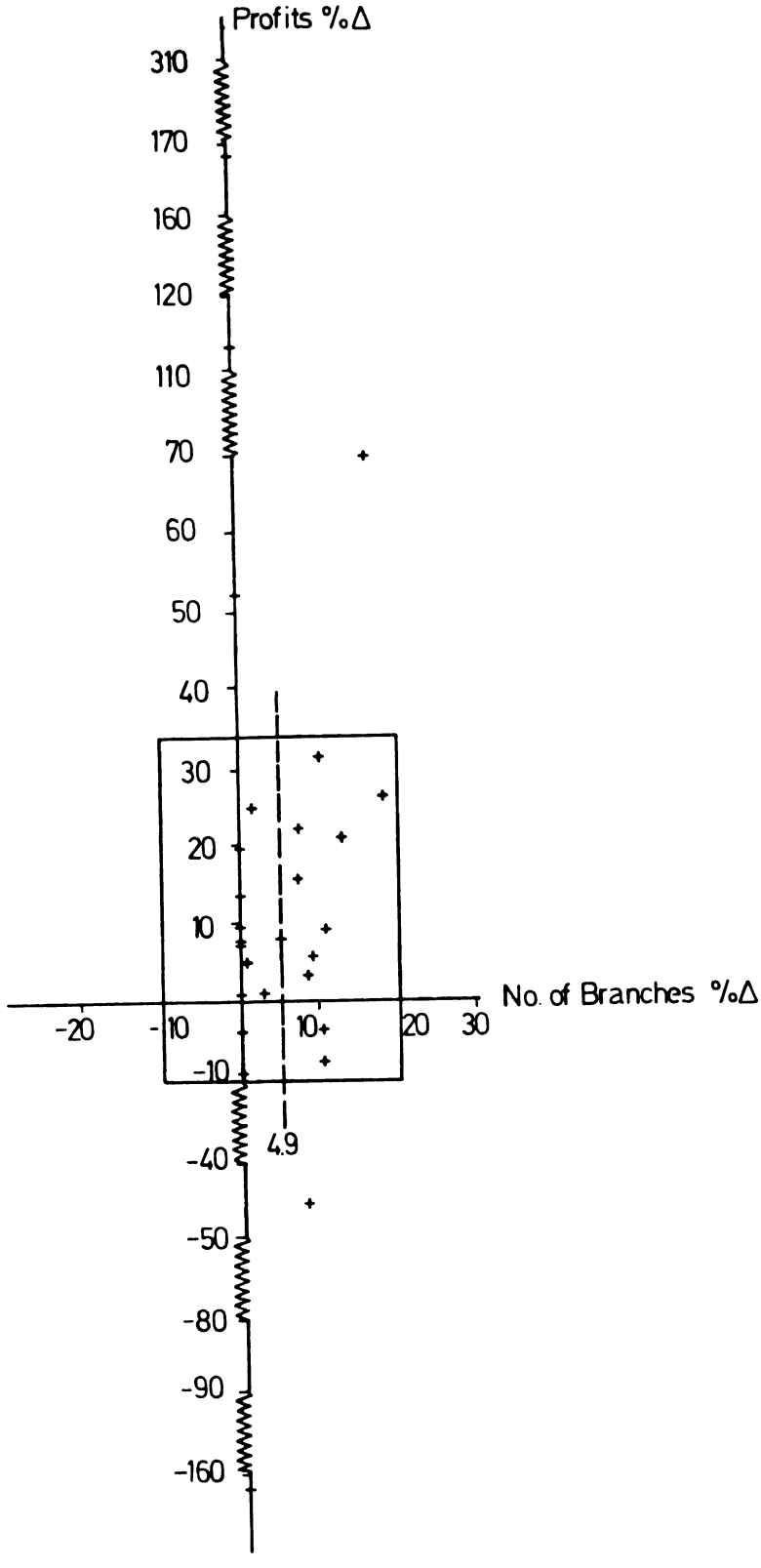
Profits %Δ
310
170
160
120
110
70
60
50
40
30
20
10
-10
-40
-50
-80
-90
-160
-20
-10
10
20
30
No. of Branches %Δ
4.9

FIGURE 4.

the study. A "t" value of 9.27 indicated a significant difference between the means of two universes at the level of significance of 0.01 and with 21 degrees of freedom.[12]

Student-t distribution was used to test the relationship between the mean rates of annual growth in the profits of the two groups of banks. The relationship between the growth rates in the number of branches and the profits was not inverse but positive, the mean rate of growth in the profits of the "high" growth banks being higher than that of the "low" growth banks. However, a "t" value of 1.09 for the two means was insignificant at 0.05 level of significance.[13] The result of this test indicated that there was neither an inverse nor a significantly positive relationship between the growth in the number of branches and in the profits of commercial banks in Turkey.

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12. $\bar{x}_1$ = 10.6 per cent, $\bar{x}_2$ = 0.5 per cent, s_1^2 = 10.6, s_2^2 = 4.0, n_1 = 10, n_2 = 13.

13. $\bar{x}_1$ = 11.9 per cent, $\bar{x}_2$ = 6.9 per cent, s_1^2 = 166.4 s_2^2 = 82.3, n_1 = 10, n_2 = 13.

The hypothesis was tested again, this time dividing the banks into two groups according to the annual rates of change in their profits, and investigating the relationship of the two means of annual rates of change in their number of branches. The dividing line between the two groups was 9.1 per cent of annual rate of growth in profits. Banks N-01, N-06, N-16, N-18,N-19, N-20, N-22, F-01 and F-02 had higher rates of growth in profits than the mean for all banks. Banks with lower rates than 9.1 per cent per annum were N-03, N-05, N-07, N-09, N-10, N-12, N-13, N-14, N-21, L-02, L-03, F-03, F-04 and F-05. "t" value of 4.99 indicated a significant difference between the means of the two universes at 0.01 level.[14]

The relationship between the mean rates of change in the number of branches and in profits for both of the groups was again positive but insignificant at 0.05 level, with a "t" value of 1.02.[15]

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14. $\bar{x}_1$ = 20.0 per cent, $\bar{x}_2$ = 2.0 per cent, s_1^2 = 122.9, s_2^2 = 38.1, n_1 = 9, n_2 = 14.

15. $\bar{x}_1$ = 6.4 per cent, $\bar{x}_2$ = 3.9 per cent, s_1^2 = 43.8, s_2^2 = 25.9, n_1 = 9, n_2 = 14.

Both tests showed that there was no inverse relationship - nor a significantly positive one - between the growth in the number of branches and the growth in the profits of Turkish commercial banks. A rank correlation co-efficient of 0.01, insignificant at 0.05 level, between the two factors and for all the 32 banks supported the results of the two tests, thus providing enough evidence to reject the secondary hypothesis No. 3.

E. Profitability vs. Performance Factors

After having proven that there were significant differences in the profitability rates of Turkish commercial banks (Chapter II, Part I, Section A), possible relationships between profitability and each of the performance factors which could have affected profitability, were investigated to complete the testing of the principal hypothesis. Table 7 gives a complete list of the 29 performance factors used for this purpose. Analysis made was dynamic in nature, meaning that annual rates of change in profitability, as well as, in other performance factors were utilized. The technique of the analysis was similar to the one used for testing the secondary hypotheses. Twenty-four commercial banks were selected, leaving the banks with too high or too low annual rates of change out of the analysis. Then, these banks were divided into two groups according to their annual rates of change in profitability. Thirteen banks with growth rates higher than the mean rate for all the banks selected were labeled as "high" group

and 11 banks with rates of change lower than the mean were included in the "low" group. Student-t distribution was utilized to test the difference between the mean rates of change of the two groups for all the 29 performance factors. "t" values significant at 0.05, 0.02 or 0.01 levels pointed out the performance factors which differed significantly between the two groups, indicating the factors which caused directly or indirectly the difference among the profitability rates of commercial banks. The findings were further tested by rank correlation analysis.

The mean rate of annual change in profitability for all the banks was 3.4 per cent and this rate was used as the dividing line between the "high" and "low" groups.

Banks with relatively high growth in profitability were N-01, N-04, N-06, N-09, N-13, N-16, N-18, N-20, N-22, L-03, F-01, F-02 and F-03. Included in the "low" group were banks N-03, N-05, N-07, N-10, N-12, N-14, N-19, N-21, L-02, F-04, and F-05.

A "t" value of 5.172 indicated a significant difference between the mean rates of the two universes at 0.01 level and for 22 degrees of freedom.[16] Table 7 gives the "t" values as well as the means and variances of the two groups for all the 29 performance factors.

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16. $\bar{x}_1 = 11.2$ per cent, $\bar{x}_2 = -6.4$ per cent, $s_1^2 = 95.9$, $s_2^2 = 36.5$, $n_1 = 13$, $n_2 = 11$.

Of all the 29 performance factors, only seven differed significantly between the two groups. These factors were:

1. Total Net Tangible Assets.
2. Total Commercial Deposits.
3. Average Commercial Deposits per Commercial Account.
4. Total Loans Extended.
5. Interest and Commissions Received on Loans Extended.
6. Average Deposits, plus, Loans Extended per Employee.
7. Ratio of Loans Extended to Equity Capital.

Rank correlation coefficients between the annual rate of change in profitability and in each of the seven factors were 0.48, 0.46, 0.56, 0.48, 0.39, 0.62 and 0.66, respectively, all significant at 0.01, 0.02 or 0.05 levels of significance.

Grouping together the similar items among the seven factors it was clearly seen that three principal factors, loans extended by commercial banks, commercial deposits held by them and their personnel expenses were the main ones which caused the differences in the profitability of Turkish commercial banks.

A similar test was made with 25 banks to investigate the relationship between the loans extended and each of the

TABLE 7
Means, Variances, and "t" Values for 29 Performance Factors
by "High" and "Low" Profitability Groups (1961 - 1970)

Performance Factors	Mean (%)		Variance		"t" Values
	"High"	"Low"	"High"	"Low"	
Profitability	11.2	-6.4	95.9	36.5	5.172^{+++}
1. Equity	7.2	7.1	33.3	25.1	0.045
2. Net Tangible Assets	18.0	11.7	43.1	55.0	2.204^{+}
3. Deposits (Savings + Commercial)	19.8	16.5	68.3	88.0	0.916
4. Average Deposits per Branch	13.9	11.0	40.7	31.3	1.173
5. Savings Deposits	20.8	20.8	86.2	239.0	0.0
6. Commercial Deposits	19.8	10.4	98.3	146.7	2.090^{+}
7. Average Commercial Dep. per Actt.	13.2	6.1	34.3	51.3	2.672^{++}
8. Total Loans Extended	17.8	10.2	46.9	79.4	2.360^{+}
9. Total Revenues	15.5	10.0	33.6	69.2	1.900
10. Total Expenses	14.3	12.0	69.8	87.6	0.639
11. Operating Revenue	16.6	10.5	35.4	81.1	1.968
12. Revenue from Banking Services	11.2	7.2	50.6	95.7	1.157
13. Interest and Commissions Rcvd.	16.9	10.1	30.6	82.8	2.250^{+}
14. Aver. Return on Loans Extended	-0.7	-0.5	3.9	11.2	-0.182
15. Aver. Cost of Deposits	-1.5	0.2	10.4	7.0	-1.387

TABLE 7 (Contd.)

Performance Factors	Mean (%)		Variance		"t" Values
	"High"	"Low"	"High"	"Low"	
16. Marketable Securities	31.3	21.8	1016.1	441.3	0.844
17. Revenue from Marketable Sec.	15.4	13.3	253.4	241.4	0.325
18. Investments	54.9	38.8	4031.4	9441.2	0.488
19. Revenue from Investments	33.1	31.1	1507.5	4376.5	0.092
20. Personnel Expenses	13.7	12.5	62.3	51.2	0.387
21. Number of Personnel	5.9	5.6	58.0	36.8	0.105
22. Aver. Pers. Exp. per Employee	7.5	6.1	8.3	13.1	1.054
23. Aver. Depos. + Loans per Employee	12.2	5.5	9.2	36.9	3.499^{+++}
24. Other Expenses	15.3	14.9	51.5	130.9	0.104
25. Number of Branches	5.2	4.3	44.6	20.7	0.375
26. Deposits/Equity	12.1	7.3	60.7	72.2	1.442
27. Savings Deposits/Equity	12.5	10.7	74.2	169.2	0.405
28. Loans Extended/Equity	9.7	2.6	20.3	27.5	3.562^{+++}
29. Liabilities/Equity	11.6	7.0	30.9	55.9	1.726

+ Significant at 0.05 level and 22 degrees of freedom.
++ Significant at 0.02 level and 22 degrees of freedom.
+++ Significant at 0.01 level and 22 degrees of freedom.

eight relevant performance factors. The dividing line between the "high" and "low" groups was 17.4 per cent of annual rate of change in loans extended. Table 8 gives the list of these eight factors as well as the means, variances and "t" values for the relationships between the two groups.

The computed "t" values indicated significant relationships between loans extended and (a) commercial deposits, (b) number of branches, (c) interest and commissions received and (d) revenue from banking services. Rank correlation coefficients of 0.83, 0.94, 0.44 and 0.55, respectively, all significant at 0.01 or 0.02 levels, supported the findings of this second test.

A further test was made to investigate the possible relationships between the annual rates of change in the promotional prizes and seven other relevant performance factors. Table 9 shows the results of this last test.

Twenty-six banks were selected for the last test concerning the promotional prizes. The mean rate of change used as the dividing line between "high" and "low" growth groups was 10.5 per cent per annum. A significant relationship between promotional prizes and savings deposits was observed. Relationship also existed between promotional prizes and loans extended but this was not supported by the rank correlation coefficient of 0.33, not significant at 0.05 level. The rank correlation coefficient

TABLE 8
Means, Variances, and "t" Values for 8 Performance Factors
by "High" and "Low" Groups of Loans Extended (1961 - 1970)

Performance Factors	Mean (%)		Variance		"t" Values
	"High"	"Low"	"High"	"Low"	
Total Loans Extended	23.9	13.2	22.6	10.9	6.642^{+++}
1. Deposits (Savings + Commercial)	25.1	15.6	45.1	114.8	2.482^{+}
2. Commercial Deposits	25.6	12.4	56.7	130.2	3.205^{+++}
3. Interest and Commissions Rcvd.	23.0	13.5	31.9	13.1	3.508^{+++}
4. Number of Branches	10.2	2.4	27.0	28.2	4.478^{+++}
5. Aver. Pers. Exp. per Employee	6.1	6.8	5.4	11.0	-0.578
6. Revenue from Banking Services	18.9	9.9	159.2	46.3	2.312^{+}
7. Aver. Expenses per TL of Revenue	-2.0	-0.6	29.7	16.3	-0.738
8. Aver. Expenses per TL of N.T. Assets	-2.6	-1.0	6.0	11.0	-1.304

+ Significant at 0.05 level and 23 degrees of freedom.

+++ Significant at 0.01 level and 23 degrees of freedom.

between the growth in promotional prizes and in savings deposits was 0.48, significant at 0.01 level.

All the tests made throughout the research disclosed statistically significant differences in some of the performance factors among commercial banks in Turkey, indicating certain relationships between the profitabilities and financial performances of the same. Thus, the principal hypothesis was accepted as true.

TABLE 9

Means, Variances, and "t" Values for 7 Performance Factors by "High" and "Low" Groups of Promotional Prizes (1961 - 1970)

Performance Factors	Mean (%)		Variance		"t" Values
	"High"	"Low"	"High"	"Low"	
Promotional Prizes	18.6	3.6	51.8	14.7	6.778+++
1. Deposits (Savings + Commercial)	23.8	12.8	76.6	306.1	1.975
2. Savings Deposits	26.6	13.6	192.0	299.0	2.092+
3. Commercial Deposits	23.8	11.7	173.8	278.9	2.027
4. Average Deposits per Branch	15.9	8.5	91.1	229.0	1.462
5. Average Number of Depos. Accts per Branch	6.4	1.6	96.7	51.4	1.438
6. Total Loans Extended	20.2	7.7	113.5	305.8	2.156+
7. Revenue from Banking Services	14.6	7.6	127.4	170.1	1.452

\+ Significant at 0.05 level and 24 degrees of freedom.

+++ Significant at 0.01 level and 24 degrees of freedom.

PART II. QUALITATIVE ANALYSIS

The quantitative analysis, described in Sections A through E of the first part of this chapter revealed the existence of significant differences among the profitability rates of commercial banks in Turkey during the period covered by the study. The seven performance factors which had statistically meaningful relationships with the profitability rates (Table 7) could, in fact, be summarized into three principal factors; loans extended, commercial deposits and personnel. Therefore, these three factors were further investigated with the purpose of finding plausible explanations for the statistical relationships. This phase of the analysis depended to some extent on the opinions of the bank executives interviewed during the course of the research.

A. Loans Extended

Obviously, banks needed sufficient funds to perform their principal function, that is, lending money. Since deposits were the main source of funds for commercial banks, the more noticeable activities of these banks seemed to be canalized into increasing the volume of deposits held by them. The principal theme in commercial bank advertisements in Turkey, the rapid growth in the number of branch offices, and the emphasis on promotional prizes and gifts awarded to deposit holders, all supported this observation. However, it should always be kept in mind

that neither deposits, nor other types of funds, can create revenues unless they are properly invested. Deposits are funds borrowed by banks, and financial leverage can work both ways depending upon the way such funds are utilized. This well known fact is extremely important for commercial banks where the level and timing of deposit borrowing are considerably difficult to adjust to the level and timing of investment opportunities, especially in the short run. Therefore, although deposits are necessary to create funds which, in turn, are employed to extend loans, it is the quality of the loan management that directly affects the profitability of commercial banks.

It should be emphasized that it was not the volume only, but also, and probably more than the volume, the quality (financial risk involved) and the type of the loan that affected the profitability rates of Turkish commercial banks. This was supported by the fact that out of the nine banks (F-01, F-02, N-15, F-03, F-04, N-22, N-01, N-20, L-03) with above average rates of return, five (F-01, F-02, N-15, F-03, L-03) were relatively small banks with relatively small volumes of loans.[17] In fact, these nine banks differed significantly among themselves

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17. See Tables 1 and 3, Figure 1, and Appendix.

with respect to major performance factors, such as, size of net tangible assets, equity capital, number of personnel employed, number of branch offices, volume of deposits held and loans extended, and so on. With the exception of L-03 which was a small local bank, one major common factor among them - which could not be derived from the quantitative analysis, but turned out during the interviews - was that all these banks were heavily involved in financing foreign trade transactions, namely import and export. As a matter of fact, among the five most profitable banks, F-01, F-02, F-03 and F-04 were foreign banks and N-15 was partially owned by two foreign banks. Consequently, they all had wide international connections which helped them in their foreign trade dealings.

The reasons why foreign trade financing was more profitable than other types of lending were twofold. First, the financial risk involved in such loans was relatively low, and second, additional service fees were charged for such transactions. Import trade in Turkey was (and still is) closely controlled by the government in line with periodically published quota lists. Most imported goods were industrial raw materials, machinery and equipment. The domestic demand for these items was high and stable, resulting in almost no risk for the importing firms. As a result, the probability of these loans defaulting proved to be exceptionally low. Furthermore, the terms for such

loans did not need to be long, since it usually took less than six months to order, import and sell the imported goods. In fact, quite frequently the goods were sold before they were actually imported.

Despite the relatively lower financial risk, the profits accruing to the financing banks were high, due to the service fees and the high rate of interest charged on such loans. Banks which extended foreign trade loans also provided the banking services necessary to facilitate the import or export formalities. In fact, very seldom, if ever, would a bank provide the financing if the handling of such services was not done by the bank itself. For example, the commission charged by the banks for issuing a letter of credit (L/C) for an importing firm was one and one half per cent of the total amount of the L/C regardless of its duration. Since the average time it took to complete an import transaction was approximately five months, this amounted to about 3.6 per cent per annum. This amount could usually be increased by an additional six per cent per annum by setting the initial term of the L/C as three months and then charging a one per cent commission for the necessary extension of two months. The answer to why a prospective borrower should agree to such conditions was the chronic shortage of money and credit, as well as, the high demand for imported goods in a developing country like Turkey.

Another profitable service for commercial banks was issuing letters of guarantee on behalf of exporting firms, which did not require the utilization of funds unless the customers defaulted in one way or the other.

The role of banking services in the overall profitability of banks was extremely important. This was verified by a statistically significant and positive rank correlation between the overall profits and the revenues received for banking services. Among the more important services were issuance of letters of credit, letters of guarantee, money transfers, collection on customers' bills when they came due, and insurance. The ten-year statistics for the banks under study disclosed that a very substantial portion of the profits of these banks was derived from banking services. Table 10 gives the 10-year averages of net bank service charges as percentages of total profits. It was evident that bank service charges were an extremely important element of total profits.

Another point worth mentioning is the rather common rumor that such services are sometimes used unscrupulously to increase profits. Commissions reveived on fictitious transfers of money, insurance premiums and storage fees on non-existant commodities were examples of the rumored illegal additions to the normal cost of loans. All the bank executives interviewed agreed on the existence of such activities, but vehemently denied that this could happen in their particular banks.

TABLE 10

Percentage of Net Bank Service Charges to Total Profits
10-Year Averages (1961 - 1970)

Bank	%	Bank	%	Bank	%	Bank	%
N-01	76.4	N-09	27.2	N-17	44.0	L-03	31.3
N-02	80.0	N-10	73.1	N-18	98.4	L-04	25.6
N-03	56.9	N-11	19.2	N-19	32.9	L-05	4.0
N-04	100.0	N-12	13.5	N-20	69.9	F-01	25.2
N-05	4.9	N-13	86.4	N-21	98.9	F-02	59.6
N-06	72.5	N-14	99.3	N-22	86.3	F-03	57.6
N-07	64.3	N-15	20.8	L-01	86.0	F-04	42.0
N-08	96.6	N-16	97.5	L-02	12.6	F-05	41.3

(Source: Computed from data in BAT Publications Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43)

Lack of experience, difficulty of finding qualified personnel, absence of necessary international connections with banks in other countries, and the existing public image created over the long years by the few banks which acted as intermediaries in foreign trade transactions, made it difficult for other commercial banks to move into this profitable field. Therefore, banks which did not have the means or the experience to finance foreign trade transactions concentrated their operations on extending loans to local businesses, mostly to merchants and small business owners. This was done partly through discounting

notes receivable, and partly through other secured or unsecured cash loans. Financial risks were relatively greater with cash loans, cost of handling distressed loans decreasing the profits. Furthermore, administrative costs were heavier and, except in the case of loans against notes receivable, there was little chance of getting additional commission for banking services rendered. Since both the type and amount of commissions were set by the Central Bank, such high administrative costs could not be charged entirely to the customers.

In addition to the loan interest, two per cent handling fee was charged by banks when notes receivable were discounted. Since a 25 per cent safety margin was almost always requested on such loans (that is, the maximum amount of the loan extended could not be more than 75 per cent of the total value of the notes), an additional revenue of 2.67 per cent per annum was received by banks. Such loans turned out to be relatively more expensive for the borrower, although a substantial part of the cost was due to the heavy taxes charged by the government.

For example, assuming that a borrower wanted to borrow TL. 100,000.- from a bank against 91-day notes receivable, he had to submit to the bank notes in the amount of TL. 133,333.- He also had to present balance sheets and income statements for the most recent three years and

provide a guarantor acceptable to the bank. The total cost to the borrower would be as follows.

a) Tax stamps on the loan agreement (0.5 % of principal + interest)	TL.	514.38
b) Tax stamps on the guarantee agreement. (0.5 % of principal + interest)		514.38
c) Tax stamps on the notes receivable (0.5 % of TL. 133,333.-)		666.67
d) Tax stamps on balance sheets (fixed)		60.00
e) Tax stamps on income statements (fixed)		30.00
	TL.	1,785.43
f) Handling commission on notes (2% of TL. 133,333.- for 3 months)		666.66
g) Interest[18] (11.5% of TL. 100,000.- for 3 months)		2,875.00
h) Correspondence expenses (fixed)		5.00
	TL.	3,546.66

18. Interest was 10.5 per cent before August 1970.

i) Transaction tax on interest and commission.		
(25% of TL. 3,541.66)	TL.	885.42
Total	TL.	6,217.51

TL. 6,217.51 is 6.22 per cent of a TL. 100,000.- loan for three months. If the term of the loan was one year, the total cost would be:

a) 0.5 % x TL. 111,500.-	TL.	557.50
b) 0.5 % x TL. 111,500.-		557.50
c) 0.5 % x 4 x TL. 133,333.-		2,666.66
d)		60.00
e)		30.00
	TL.	3,871.66
f) 2 % x TL. 133,333.-		2,666.66
g) 11.5 % x TL.100,000.-[18]		11,500.00
h)		5.00
	TL.	14,171.66
i) 25 % x TL. 14,166.66	TL.	3,541.67
Total	TL.	21,584.99

18. Interest was 10.5 per cent before August 1970.

Out of the total annual cost of 21.58 per cent to the borrower, 14.17 per cent was received by the bank and 7.41 per cent by the government as various types of taxes.

Interviews with bank officials disclosed the fact that the true nature of a significant portion of all the loans extended were medium - or long-term although the form in which they were extended was short-term. No reliable statistics were available as to the average term of such loans. However, one bank official stated that most firms regarded these loans as part of their permanent capital and were greatly upset if a short-term loan was not promptly renewed when it became due. Shortage of investment and development banks, as well as of other financial institutions which normally provide medium and long-term loans for capital investments, forced Turkish commercial banks to take over this function without being properly ready for it. The practice of extending long-term loans in short-term form became a part of their loan policy and they actually encouraged this practice. Professor Robinson, who calls this kind of practice a "self-delusion in maturity policy," points out the dangers of such practice as follows.

> " A bank may appropriately plan to put some portion of its funds in long-term loans to business. It is quite another matter, however, for a bank to do a great deal of long-term lending in short-term form by

> allowing repeated renewals. Long-term credit, if planned in advance, may be made safe by a variety of protective provisions. When credit is extended in short-term form but with the implied expectation that renewal will be permitted, these protective provisions are absent. Even more important, the moderate degree of liquidity of term loans on which a bank can depend is absent from short-term loans for which the time of repayment is uncertain." 19

When interviewed, bank officials agreed to the existence of this potential danger and could not give a rational reason for such practice. They either said or implied that the demand for term loans was there and out of habit or limited experience they were inclined to deal with all types of loan requests as if they were short-term. Their credit departments were not organized to handle term credit analysis, financial analysts capable of doing that were hard to get and the wage scales of commercial banks were not high enough to employ them. In one of the larger banks where they had started to extend medium-term credit after proper credit analysis, a branch manager complained that he could not always see eye-to-eye with the newly appointed credit analysts employed to investigate the term loan applications. He said that he became panicky when the analysts rejected a term loan request of an old customer whose existing short-term debts to the bank were already renewed several times by him. In summary, this "self delusion" increased the financial risk and the handling

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19. Robinson, op.cit., p. 137.

costs, decreased the liquidity of their funds and consequently cut into their profits.

B. Commercial Deposits

Under the provisions of TLB, Turkish banks were required to classify their deposits into four separate groups, namely, savings deposits, commercial deposits, official deposits and interbank deposits. Deposits made by banks to one another were classified as interbank deposits. Since year-end financial report figures on interbank deposits were not always reliable and the possibility of window dressing was high,[20] they were not included in the analysis. Official deposits representing the funds deposited by various governmental agencies were mostly held by state owned banks which were excluded from this analysis. The bulk of the total deposits held by the banks included in the study consisted of savings and commercial deposits. The latter were deposits made by all kinds of business firms regardless of size or legal form. Savings deposits covered all deposits other than official, interbank and commercial deposits. At the end of 1970, of the total amount of deposits held by the banks under study,

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20. For example, an equal amount of deposits made by two banks to one another on December 31, would inflate both sides of their balance sheets without an actual change in their source or utilization of funds.

68 per cent was savings, 23 per cent commercial, 6 per cent interbank and 3 per cent official deposits.[21]

It was interesting to note that despite the substantially larger volume of the savings deposits compared to commercial deposits, it was the latter and not the former which significantly affected the profitability of commercial banks (Table 7). It was true that banks depended heavily on savings deposits to perform their function, but apparently commercial deposits contributed more to their profits. The plausible reasons behind this finding were threefold. First, of course, was the cost. During the period covered by the study, interest paid on commercial deposits, both demand and time of up to five months, was one per cent less than that paid on savings deposits,[22] (p.15). Since the greater proportion of commercial deposits were of demand type, typically made for short periods to support current transactions, they were less costly to banks than savings deposits.

Closely connected with the cost of borrowing, were the compensatory balances required by banks. The bank officials interviewed disclosed that it was customary for

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21. BAT Publication No. 43.

22. Two per cent difference after August 1970.

banks to request a certain percentage of all business loans extended to be deposited in the borrower's commercial deposit account during the term of the loan. In fact, this meant that the borrower received only a part and not the total amount of the credit stated in the loan agreement, although the interest was charged on the whole amount of the loan. This, of course, increased the actual cost of the loan to the borrower, as the loan had to exceed the actual cash requirement by the amount of the compensating balance. For example, a customer signing a loan agreement with a bank for one million Turkish Liras at 10.5 per cent interest, actually received only, say, eight hundred thousand, the remaining 20 per cent of the loan being deposited with the bank. Therefore, the effective cost of the loan to the borrower was increased to 12.625 per cent, an additional benefit of 2.125 per cent per annum to the bank. The simple arithmetics of this example is as follows.

Amount stated on the loan agreement	TL. 1,000,000.-
Amount actually received by borrower	800,000,-
Balance in deposit account	200,000.-
Interest paid on loan (10.5% of 1,000,000)	105,000.-
Less, interest received on deposit (2% of 200,000)	4,000.-
Net interest paid by borrower	101,000.-
Effective cost to borrower (101,000 : 800.000)	0.12625

The amount of compensatory balances changed according tothe bargaining powers of the sides, but 20 per cent was most common.

Furthermore, regular customers of a bank were usually obliged to keep a minimum level of commercial deposits with the bank, at all times, if they wanted to maintain good business relations with that bank.

A third advantage of commercial deposits to banks was the indirect relationship between such deposits and banking services. The holders of commercial deposits were usually regular customers, for whom banks performed such services as collecting on accounts receivable or transferring money from one province to another. As already explained in Part II, Section A of this chapter, commissions received by banks for such services, as well as, for services connected with the loan agreements were substantial.

Due to the above three major causes, banks which had relatively bigger shares of commercial deposits earned higher rates of profit. In fact, the average ratio of commercial deposits to total deposits for the nine banks with highest profitability rates was 32.37 per cent, 7.25 percentage points higher than the average ratio of 25.08 per cent for the other remaining banks.[23] Due to this

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23. Computed from data in BAT Publications Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43.

bigger proportion of commercial deposits which cost less to banks, the average interest cost on total deposits for the nine banks was 3.89 per cent, 1.47 percentage points less than the average cost of 5.36 per cent for the others.[24]

C. Personnel

Both the number and the quality of their personnel, and consequently personnel expenses, were major concerns for commercial banks.

More than one third of their total outlays[25] was spent for wages, bonuses, social security and other social benefits for their employees. Personnel structure of banks, with respect to the number of persons employed, resembled a pyramid with a disproportionately large base. This base consisted of clerks and cashiers doing routine work. Bank officials complained of the high turnover among this group. Some of the reasons for this high turnover were obvious. Working hours were long, wages were relatively low, chances for promotion were rare, and the work was routine and dull without much challenge. These lower positions were mostly filled with junior and senior high school graduates. The basic requirements for employment

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24. Computed from data in BAT Publications Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43.

25. 10-year average for all banks was 39.13 per cent.

were average intelligence and a pleasant personality. For positions requiring regular contact with customers, female employees were preferred. At the end of 1970, 36 per cent of all the personnel employed by the Turkish commercial banks studied were female.[26] The trouble with the female employees was that marriage and child-birth caused them to quit their jobs or to go on long, paid sick leaves. Furthermore, most preferred to work at branch offices near their homes and were reluctant to change their places even when transfers were required to new branch offices or to fill vacant positions.

It was even more difficult to fill the positions requiring higher qualifications. For example, banks dealing with foreign trade transactions needed multi-lingual or, at least, bilingual employees, preferably with college degrees. At the end of 1970, inexperienced graduates of bilingual colleges, such as, Middle East Technical University and Robert College, demanded and easily found jobs with private business at a beginning monthly salary of four to five thousand Turkish Liras, in Istanbul. Bank officials complained that their wage scales did not allow them to pay more than twenty five hundred at most. In 1970, the average yearly personnel expense per employee for all banks was TL. 21,170.53 and the highest was

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26. BAT Publication No. 43

TL. 47,980.- (F-01)[27] This amount included social benefits in addition to wages.

Rapid increase in the number of branches increased the need for new employees. In fact, number of personnel employed by the 32 banks in the study more than doubled in ten years, going from 16083 in 1961 to 32689 in 1970.[28]

Inflation and periodic demands for higher wages and other fringe benefits by the unions - and not necessarily in that order - also hurt the banks with respect to personnel expenses. Personnel expenses per employee also doubled during the same period.[29]

The older generation of bank officials occupying middle and top level managerial positions were usually conservative and too security conscious, sticking closely to the old ways of handling the daily work and reluctant to change. They believed that efforts made by a bank to maintain its image of infallibility with respect to probable fraud should rank higher than cost. Therefore, they were willing to spend more for internal and external anti-fraud measures than it would cost them if some of the measures were loosened. This caused them to hire or promote a substantial number of middle level managers whose sole responsibility was to check and recheck each

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27. BAT Publication No. 43
28 and 29. BAT Publication Nos. 16 and 43.

other, as well as, the work done by the lower echelon of the personnel. A natural side effect was the increase in the amount of procedural paper work and handling, with a resultant loss of time both to the banks and to their customers. One good example was the signing of a receipt by a supervisor who did not actually count or see the money received, but signed the slip because the cashier signed it before him. Since the supervisor had to depend on and trust the cashier to sign the receipt, there was no rational reason for this second signature. What is more, there was no attempt or willingness to compare the cost of this double checking to the probable loss that it was assumed to prevent. The concept of "opportunity cost" did not seem to exist.

One solution to the personnel problem was the use of electronic calculators and other office machinery. However, since many branch offices had low volumes of business but required a minimum number of employees, it was frequently uneconomic to instal costly labor-saving machinery. Bank officials complained that since the upper limits of interest rates and commissions they could charge were set by the government, it was impossible for them to transfer, even partly, the additional cost of wage increases, due to inflation and union demands, to their customers. This, they said, cut directly into their profit margins. Some of the banks, especially those with

few or no branches, fought against this by reducing the number of employees, thus increasing their individual work loads. For example, bank F-01 had to increase its average personnel expenses per employee by more than 37 per cent in 1966. The same year its employees were reduced by 33 per cent and the average volume of transactions handled by each employee was more than doubled.[30] For the nine most profitable banks, volume of transactions (defined here as the total volume of deposits, plus, loans extended) handled by each employee was 81.6 per cent more than the average for the rest of the banks. At the same time, their average personnel expenses per employee was 42.9 per cent higher. This meant that by paying higher wages and/or providing better fringe benefits, they could hire better qualified personnel and make them work more efficiently. As a result, their average personnel expenses per Turkish Lira of transactions was 21.5 per cent lower.[31]

All the bank officials interviewed agreed that the position of a branch manager was an extremely important one and required substantial experience, as well as, other managerial qualifications. However, lack of enough potential managers among the lower level of employees and the rapid growth in

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30. Computed from data in BAT Publications Nos.26 and 27.

31. Computed from data in BAT publications Nos. 16, 21, 23, 25, 26, 27, 31, 33, 39 and 43.

the number of branches sometimes forced banks to appoint branch managers with less than desired qualifications or experience. This, they said, reduced efficiency and caused losses to banks, the actual amount of which could not be measured.

D. Other Relevant Findings

Both the analysis and the interviews held with bank officials disclosed certain additional findings which were relevant to the operations of Turkish commercial banks, even if such findings were not always directly related to the hypotheses. These findings were included as a separate section in this chapter with the purpose of providing the reader with a better understanding of Turkish commercial banks.

1. Branching

It has already been mentioned that Turkish commercial banking could be classified as "branch banking" and the statistical analysis showed that growth in the number of branches had no impact on profitability.

However, the same analysis also disclosed that banks, by increasing the number of their branch offices, succeeded in increasing the volume of their deposits, the loans they have extended and their total revenues. On the other hand, the policy of spreading their branches all over the country added substantially to their total expenses,

completely annihilating the benefits. Coefficients of rank correlation between the annual rate of change in the number of branches and in (a) total deposits, (b) savings deposits, (c) commercial deposits, (d) total loans extended, (e) total revenues, (f) revenue from banking services, and (g) total expenses were, 0.54, 0.46, 0.55, 0.44, 0.48, 0.41 and 0.56, respectively, all significant at 0.01, 0.02 or 0.05 levels of significance. Hence, growth had no significant effect on the profits either way. The fact that the cost involved in opening new branches offset the benefits of a larger volume of business was also supported by the finding that the cost of doing business was not significantly different between large and small banks. (pp.51-52) However, branching can still prove to be a rational business decision, if in the future, business volume grows large enough to better cover the existing over-heads.

None of the banks whose executives were interviewed conducted any serious research on the consequences of branch banking. The reasons they gave for opening new branches were various and could be summarized as follows.

a) To increase profits,

b) To get a bigger portion of the market,

c) Competition, ("Other banks do it, so we must follow them")

d) To become a truly national bank by having a wide net-work of branches in every part of the country,

e) Power to affect the economy of the country.

Some of the executives conceded that competition in this way sometimes became rather irrational, but they were afraid of losing the market - mostly, their deposits - to other banks if they stopped now. The claim that opening new branches did not really increase the total volume of deposits, but only caused savings to move from one bank to another did not bother them. They not only did not believe it, but stated that even if it were true, their main concern was increasing their own shares of it, just like any other business in a competitive millieu. They said that they had good reasons to believe in the existence of a substantial amount of cash in Turkey which has not been deposited with any bank yet. Taking banking services to the remote corners of the country, nearer to the homes of potential savers, helped to attract some of this money into banks. One example cited was quite interesting. When one of the banks opened a new branch in a small town, quite a number of brand new 1000.- Lira notes were deposited. These notes were still valuable as currency but were not printed by the Central Bank any more and were gradually withdrawn from circulation. This supported the belief that there were still people who kept their savings "under the mattress" and that they could be persuaded to deposit this money with banks when properly approached.

When planning for a new branch, most banks used slightly modified pay-back period method as an investment criterion. The time required for a branch office to show a net profit varied between one to three years. However, some of the branches were opened in potential growth regions for the purpose of "being there before the others" when the business started. Still more, a number of branches were opened without much regard to cost or revenue, simply because some other bank opened a branch office in that area.

Naturally, some of the branches were operated with the purpose of attracting deposits, and they were not expected to deal in much lending activity. On the other hand some did more lending than borrowing. Therefore, funds were transferred from one branch to another when and where necessary. In such cases, an imputed rate of interest was either charged to or paid by the involved branches on their books in order to enable the main office to evaluate their operations.

2. Promotional Prizes and Gifts

Promotional prizes awarded to holders of savings deposits by drawing lots were first introduced to Turkish commercial banking slightly more than two decades ago by bank N-22. At first it was viewed with suspicion, and not infrequently in disgust, by some of the more conservative type of bankers. However, eventually, and sometimes with

reluctance, this practice was adopted by all with very few exceptions. These prizes included cash, real estate and securities. The Central Bank, each year, set the maximum total value of such prizes that could be distributed by banks. The criterion was a fixed sum, plus, a certain percentage of the volume of savings deposits held by each bank during the previous year.

The probable effects of this practice have frequently been the subject of a controversial debate among bankers themselves, as well as, between bankers and scholars. Statistical analysis during this research disclosed that promotional prizes had some positive effect on the volume of savings deposits, and as a result, on the volume of loans extended. However, no significant impact on profitability was observed. (Tables 7 and 9) This was due to the explicit and implicit cost of these prizes which offset the benefits. Explicit cost was what the banks actually paid for the prizes, which in 1970, was approximately three and one half per cent of total expenses for most of the banks. No statistical data were available for the implicit cost of extra handling and paper work caused by deposit holders transferring their savings either in whole or in part, from one bank to another, or even from one branch to another, to be eligible for the prizes offered at different times. Furthermore, to be effective, these prizes had to be continuously advertised.

Bankers claimed that in recent years, gifts given away by banks on special days, such as, New Year's day and anniversaries, were becoming more and more effective than promotional prizes, in attracting deposits. Usually, these gifts consisted of small items, such as desk and wall calendars, ball points, wallets and other similar souvenirs. However, the common belief that some banks, from time to time, gave highly valuable gifts to big deposit holders was confirmed by the bank officials interviewed. Again it was a case of "some banks, but definitely not ours". Among such gifts rumored to be given away by some banks were valuable rugs, silverware, and most interesting of all, payment of a customer's income tax by a bank. Such gifts were, of course, a roundabout, and certainly illegal, way of paying higher rates of interest on deposits, than those set by the government. It is hardly possible, especially for an outsider, to obtain any evidence, let alone actual cases and figures, about the total amount of such gifts. A common way of keeping these figures confidential was to allocate a lump sum appropriation to the president of a bank for such expenditures. The actual payments were not recorded in the books, neither were they shown as cost items. In such cases, banks were actually willing to pay tax on these amounts since they could not be shown on the books as deductible expenses. This practice would, of course, further increase the banks' promotional costs.

3. Dividends vs. Retained Earnings

The amount of equity capital was a vitally important factor for commercial banks. TLB made many references to the amount of equity of a bank in connection with commercial bank operations. For example, the total volume of savings deposits that a bank could accept was set as a certain multiple of the equity capital of that bank. If the volume of savings deposits exceeded that limit, then 50 per cent of that excess amount had to be deposited with the Central Bank at a much lower interest rate than the bank could earn if it was allowed to invest it in its normal operations.[32] Furthermore, banks were not allowed to loan to the same borrower more than ten per cent of their equity capital.[33] Such legal provisions, together with the desire to grow, were sufficient reasons for most banks to retain their profits rather than distribute them as dividends. This was not a big problem for banks owned by a small group of share holders who completely controlled the bank and who were usually in high income tax brackets. On the other hand, if the shares of a bank were widely held, then the management had a hard time to persuade the shareholders to allow them to retain profits in the bank. Turkish people, in general, are not familiar with the

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32. TLB Article 28.

33. TLB Article 38.

operations of a capital market, and the absence of a regular, active stock market makes it difficult to buy or sell stocks in Turkey. Lack of sufficient disclosure requirements does not help this situation either. Therefore, for most people, the concept of "capital gains" does not exist. They expect regular income from their stocks, in the same way they except to receive a regular interest on their bonds or deposits. Managerial efficiency is measured solely by the amount of dividends declared, regardless of the need for retaining earnings. This situation created a dilemma for the management of some banks who had to satisfy their stockholders while trying to increase their equity capital through retained earnings. Turkish Commercial Code does not provide for "authorized capital", and the procedure to increase legal capital involves a great deal of costly and time consuming red tape. Therefore, keeping treasury stock is not a common practice in Turkey, limiting the use of stock dividends as an effective solution to the problem. Some banks solved this problem by keeping the net income figure in the financial statements as low as they dared, through allocation of large amounts of "allowance for probable depreciation of assets." It was a meaningless item, used solely to manipulate the net income figures. Since it was not accepted by the tax authorities as a deductible item, full corporate tax was paid on it, but it helped to keep the uninformed stockholders from requesting larger dividends. Sometime in the

following years, such allowances were quitely transferred to the retained earnings, without letting most of the stockholders getting any wiser.

CHAPTER III

A BRIEF COMPARISON OF COMMERCIAL BANKING OPERATIONS IN THE U.S.A. AND IN TURKEY

The principal objective of this research was to investigate the operations of commercial banks in Turkey. With this goal in mind, the first two chapters of the study covered the structure of and findings related to Turkish commercial banks. In order to help the reader, not too familiar with the Turkish banking system, to better evaluate these findings, it was thought useful to compare briefly, the operations of Turkish commercial banks with those of commercial banks in the United States. However, a more detailed and exact comparison of these two systems, situated in significantly different economic, social and political environments, would necessitate a thorough investigation of the operations of U.S. commercial banks, with similar purpose, scope and methodology of this research. This, by itself, would be another major undertaking not within the scope of this study. Therefore, relatively more important differences and/or similarities, related to the basic structures of the two systems were covered in the following four sections of this chapter.

A. Structural Differences and Similarities

The principal functions of commercial banks - that is, acceptance of deposits, lending, investing, and providing

banking services - are the same both in the United States and in Turkey. However, there are a number of basic differences between the two, with respect to type, number and size of the same. Furthermore, socio-economic environment also differs greatly.

As a natural result of the political structure of the Republic of Turkey, which is not constituted by union of states as in the U.S.A., the dual banking system of state and federally chartered banks does not exist in Turkey. All Turkish banks are chartered either under the provisions of the Turkish Law on Banks or under individual legislations specially passed for the creation of certain banks.[1] No banks comparable to mutual savings banks of the U.S.A. - which have no stockholders and which are administered by trustees for the depositors on a mutual basis[2] - exist in Turkey either. As a matter of fact, TLB prohibits the creation of not only mutual savings banks, but also, of all other depository types of financial institutions, such as, credit unions and savings and loan associations.[3] Group banking, defined

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1. See pages 8 through 12 and Appendix.

2. Banking Education Committee, The Story of American Banking, (The American Bankers Association, N.Y., N.Y.) 1963. p. 72.

3. TLB Article 24, and Smith, R. Elberton, Turkey's Financial Structure, (- A Report -), (USAID/Turkey,Ankara) 1968.p.4.

as, "the ownership of substantial control of two or more banks by the same interests,"[4] exists in Turkey. However, there is a major difference between group banks in the U.S.A. and in Turkey. In the U.S.A. the term implies that the controlling interest is vested in an individual, or a group of individuals (chain banking), or in a corporation (bank holding company.)[5] In Turkey, the state, rather than individuals, completely owns or controls a number of banks which are founded by special legislations.

As for banks owned or controlled by other banks, two examples are worth mentioning. One is bank D-02, whose shares are owned by a number of privately owned commercial banks. The second is Bank N-15 whose shares are owned in the proportion of 76 per cent, 20 per cent and 4 per cent, by Bank N-20, Bank of America and Banco d'America d'Italie, respectively.

Commercial banking in the U.S.A. is practiced, to a large extent, by unit banks described as, "banks the physical location of which is limited to one site."[6] At the end of 1966, out of a total of 13,770 commercial banks,

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4 and 5. Grosse, Howard D., Management Policies for Commercial Banks, (Prentice-Hall, Inc., Englewood Cliffs, N.J.) 1962. p. 28.

6. Robinson, op. cit., p. 8.

10,457 - 76 per cent - were unit banks and 3,313 banks operated 16,648 branch offices, in addition to, their main offices. As a consequence, both the loans and investments of branch institutions amounted to approximately 70 per cent of the total for all commercial banks, and the number of branch offices, as well as the assets of branch banks, were about double those of unit banks.[7] In the same year, out of the total of 43 commercial banks in Turkey, including those created by special legislation, 33 - 77 per cent - operated two or more branches, and only 10 were unit banks. Total number of branch offices, excluding the head offices, were 1,999.[8] A significant difference between branch banking practices in the U.S.A. and in Turkey is that, in the former, the average number of branch offices per branch bank was only five, substantially less than the average of 61 in the latter. In 1966, banks S-07, N-20, N-22, N-01 and N-16 operated 679, 269, 141, 108 and 105 branch offices, respectively.[9] In 1970, although the number of branch banks stayed the same, the total number of branch offices was increased to 3,148

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7. Fischer, Gerald C., American Banking Structure, (Columbia University Press, New York.) 1968. p.33

8. BAT Publication No. 27.

9. Ibid.

with an average of 95 offices per branch bank. The number of branch offices operated by the above five banks were also increased to 774, 436, 304, 252 and 168, respectively.[10] In 1966, loans and investments of branch institutions were approximately 94 per cent of the total for all commercial banks,[11] considerably more than that in the U.S.A. This percentage for Turkish branch banks stayed approximately the same - 95 per cent - in 1970.[12]

At the end of 1961, 79 per cent of all commercial banks in the U.S.A. had deposits of $ 10 million and less, 18.7 per cent held deposits between $ 10 million to $ 100 million, and only 2.3 per cent held more than $ 100 million of deposits. The most common sized banks were those with deposits ranging from $ 2 million to $ 5 million.[13]

In percentages, the situation was almost identical in Turkey for the same year. Of all the Turkish commercial banks studied, 79.3 per cent held deposits of $ 10 million and less (U.S. $ 1 = TL 14), 17.2 per cent had deposits of $ 10 million to $ 100 million, and 3.4 per cent held more than $ 100 million of deposits. However, the most

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10. BAT Publication No. 43.

11. BAT Publication No. 27.

12. BAT Publication No. 43.

13. Reed, Edward W., Commercial Bank Management, (Harper and Row, Publishers, Inc., N.Y. N.Y.) 1963. pp.13 and 14.

common sized Turkish commercial banks were smaller than those in the U.S.A., with deposits ranging from $ 200 thousand to $ 3.5 million.[14] In 1961, the biggest Turkish bank included in the study (N-20) had deposits of slightly less than $ 160 million, whereas, in the U.S.A. there were some banks with even more than $ 1 billion of deposits. Even in 1970, there was not a single bank in Turkey with deposits of $ 1 billion, and only bank N-20 had increased its deposits to almost $ 637 million.[15] Of course, it must be kept in mind that, compared to 13,431 U.S. commercial banks with total assets of $ 279 billion[16] in 1961, the total assets of the Turkish commercial banks studied were slightly less than $ 423 million.[17]

In 1970, the number of Turkish commercial banks with deposits of less than $ 10 million decreased to 63.3 per cent. Those with deposits of $ 10 million to $ 100 million and with more than $ 100 million increased to 23.3 per cent and 13.3 per cent, respectively. In that year, the most common sized Turkish commercial banks

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14. BAT Publication No. 16.

15. Banking Education Committee, op. cit., p. 66, BAT Publications Nos. 16 and 43.

16. Reed, op. cit., pp. 2 and 10.

17. BAT Publication No. 16.

were those with deposits ranging from $ 1 million to $ 30 million.[18]

B. Deposits and Loans

The major difference between the types of deposits held by commercial banks in the U.S.A. and in Turkey lies in the fact that, to the majority of Turkish people the use of personal checks is almost unknown. With very few exceptions, wages are received in currency, and payment for purchases or bills is made in cash. Therefore, the personal checking account system, which is so widely accepted in the U.S.A., is virtually nonexistent in Turkey. Business firms use checks drawn against their commercial accounts, but even then,the system is inefficient, especially when compared to that in the U.S.A. Since checking accounts and commercial demand deposit accounts were one and the same in Turkey, banks had to pay, at least during the period covered by the study, interest on such deposits.[19] As a matter of fact, it is rather difficult to differentiate between demand and time deposits in Turkey, since it is usually possible to withdraw money from time deposit accounts, long before it is due, by giving up on the higher rate of interest on such deposits.

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18. BAT Publication No. 43.

19. Subsequent to the period covered by the study, that is, in 1973, Government prohibited payment of interest on commercial deposits, and allowed for it again in 1974.

At the end of 1970, approximately 73 per cent of total deposits held by all the banks in Turkey was demand.[20]

Savings deposits, both time and demand, are in the form of passbook savings accounts, and they all earn interest, the rate varying according to the period they are held with the bank. (pp. 14 and 15)

No such agency similar to the Federal Deposit Insurance Corporation of the U.S.A. exists in Turkey. However, by law, the holders of savings deposits are accepted as privileged creditors for an amount of 50 per cent of their deposits, regardless of the size of such deposits. Therefore, in case of bankruptcy, half of the savings deposits of a deposit holder is paid to him without awaiting the outcome of the liquidation process.[21]

As for the types of loans, two major differences exist between the practices of U.S. and Turkish commercial banks. First is the absence of direct consumer lending by Turkish banks. In the U.S.A., banks serve a mass market by lending substantial sums to individuals for the purchase of durable goods or for payment for vacations and so on. About 40 per cent of all consumer instalment loans are made by commercial banks in the U.S.A.[22] In Turkey,

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20. BAT Publication No. 43.

21. TLB Article 27.

22. Banking Education Committee, op. cit., p. 64.

consumer lending by banks is made only indirectly by discounting the notes receivable of the firms selling goods on instalment basis. It is extremely difficult for an individual to borrow money from a bank for personal use unless he has good connections with a bank officer. Even then, the amount that can be borrowed seldom exceeds ₺ 200. The reasons for the absence of this type of lending in Turkey seem to be similar to those that once existed in the U.S.A. Consumer lending differs significantly from commercial lending in that, the former requires special knowledge of consumer wants, as well as, of credit standings and specialized collection techniques.[23] Banks in Turkey are not presently organized to handle these problems and there are no credit rating agencies or centers to help them. Furthermore, presently, they have enough opportunities to keep their funds employed by commercial lending without getting involved in extra risks with which they are not familiar.

Second, with the exception of a few banks founded by special legislation, Turkish banks are not allowed to extend mortgage loans. In fact, they cannot make residential loans and they are not even allowed to acquire real estate which is not required by the nature of their business.[24] However, since real estate is considered to be

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23. Reed, op. cit., pp. 326-328.

24. TLB Article 50.

a good hedge against the rather high rate of inflation in Turkey, most of the big banks prefer to buy, rather than rent, office space for their branches, especially in good locations.

The practice of long-term lending in short-term form has already been discussed in Part II, Section A of Chapter II, but this situation is not unique to Turkey and seems to be widely practiced in the U.S.A. also.[25]

C. Revenues, Expenses and Profits

Both in the U.S.A. and in Turkey, the major source of income for commercial banks is the loans extended by them,[26] although there are some differences in the types of loans, as explained in the previous section.[27] In 1970 income from loans accounted for approximately 74 per cent of total earnings of Turkish commercial banks.

The two major differences in the sources of income of U.S. and Turkish banks are the service charges on deposits and revenue from the investment portfolios. Since Turkish banks pay interest on demand deposits rather than charge service fees, the first source of revenue is not available to them. As for the second source, with very few exceptions, income from investments rarely accounts for more than two per cent of their total income. The maximum total amount

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25. Robinson, op.cit., p. 137.

26. Reed, op.cit., p.469 and BAT Publications.

27. TLB Article 48.

of funds that Turkish commercial banks are allowed to invest in other firms is ten per cent of their equity capital. Moreover, the absence of an organized capital market limits investments in such fields. Consequently, whatever investments they have are not liquid, the way it usually is in the U.S.A. Therefore, portfolio management and capital gains are concepts with which Turkish bankers are not very familiar. Marketable securities with short maturities are not available for them either. Turkish bankers have long ceased to regard government or treasury bonds as liquid assets. Due to informal, but effective, pressure put on banks by the government, such bonds are bought and held in amounts and for periods convenient to the treasury, but not necessarily to banks.

The second major source of income for Turkish banks is the revenue received for banking services, already explained in the previous chapter.

The largest expense item of U.S. commercial banks is salaries and wages including officer and employee benefits.[28] This is true for Turkish banks too, however, interest paid on deposits is usually at the same level with personnel expenses. In the U.S.A., wages and salaries are below the average also, but this difference is becoming less and less pronounced.[29] This gap still exists in Turkey and

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28. Reed, op.cit., p. 494.

29. Ibid., p. 496.

the problem of hiring and keeping qualified personnel, while maintaining personnel expenses at a reasonable level, constitutes a serious dilemma for Turkish banks.

Absence of any significant difference in cost between the small and big Turkish banks has already been explained in Chapter II. The situation seems to be different in the U.S.A. Studies made by the Federal Reserve Banks of Kansas City and Boston presented evidence that costs were considerably lower at the bigger banks, and they tended to decline with the increasing size of the banks. The major reason for lower costs of larger banks was the proportionately lower personnel expenses.[30] During the period covered by the study, such economies of scale did not work for Turkish commercial banks.[31]

In the U.S.A., banks showing exceptionally large profits are rare, and the profitability rates of U.S. commercial banks bunch rather closely.[32] In 1961, rate of return on capital, after tax, ranged between 6.5 to 9.8 per cent for commercial banks in the U.S.A.[33] During the period covered by this study, average return on capital,

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30. Ibid., p. 512 and Robinson, op. cit., p. 427.

31. See Sections C and D-1, Part II, Chapter II.

32. Robinson, op.cit., p. 416.

33. Reed, op.cit., pp. 509 and 513.

before tax, for Turkish commercial banks varied from minus 4 per cent to plus 53.7 per cent. (Table 1) Since an average of 40 per cent of corporate and income tax is a reasonable assumption in Turkey, the net after tax returns would range from minus 4 per cent to plus 32.2 per cent, with an average of 10.2 per cent for all banks studied. This average is quite close to the rates in the U.S.A., but the range is considerably wider.

D. Disclosure Requirements

Absence of an organized, regular capital market, and consequently, of an agency similar to SEC, lack of adequate disclosure requirements and of dependable financial reports or statistics, make it extremely difficult to conduct empirical research in Turkey. Although the disclosure requirements for banks are relatively more strict and some statistics based on year-end financial reports are either available or can be computed, the situation is still far from being satisfactory. (pp. 28-29) For example, neither net income after taxes, nor distribution of profits can be found in their financial statements. Monthly reports are not available to the public, encouraging banks to window dress their year-end reports and to spend a lot of time and money to increase the volume of their deposits towards the end of December.

Furthermore, too many expense items are consolidated into broad categories. For example, advertising expenses, cost

of gifts to depositors, rent paid for office buildings, are all included in one expense group, rather meaninglessly labeled as, "other expenses".

Lack of a uniform accounting system accepted by all banks makes it difficult to compare some of the balance sheet and income statement items of different banks. This situation is more apparent in the classification of loans and in the definition of banking services.

However, similar criticisms seem to be valid with respect to the published financial reports of U.S. banks,[34] although the disclosure requirements are far more adequate in the U.S.A. than in Turkey. Balance sheet is the only financial report required by law to be published by U.S. commercial banks. The same information, with some variations, is usually available in the bank offices.[35] Since U.S. banks are exempted from the provisions of the Securities Act of 1933, they are not required by law to report to stock holders or to make financial information available to potential investors.[36]

Both in the U.S.A. and in Turkey, reluctance to disclose information to the public seems to stem from similar feelings on the part of conservative banks. They fear

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34. Ibid., pp. 68-70.

35. Ibid., p. 64.

36. Ibid., p. 68.

that too much information may lead to unwarranted speculation culminating in a "run on the bank". Moreover, they believe that there is enough supervision by the Government as it is, and therefore, no need to publish too much data.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

The foregoing analysis of the Turkish commercial banking system provided evidence to accept two of the four hypotheses of this study and to reject the other two. The principal hypothesis was proven to be true, because statistically significant differences among the profitability rates of Turkish commercial banks were observed. Net tangible assets, commercial deposits, loans extended, average size of commercial deposit accounts, volume of transactions handled per employee, income from loans extended, and the ratio of loans extended to equity capital, were the seven factors which the analysis disclosed as causing the observed differences among the profitability rates. (Table 7) These seven performance factors could actually be categorized into three main groups; lending, commercial deposits, and personnel.

Secondary hypothesis No. 1 was accepted, because no statistically significant difference between the profits of the less and more rapidly growing banks could be observed.

Neither economies nor diseconomies of scale could be observed to work for Turkish commercial banks. Therefore, the cost of doing business at the large and small banks did not differ significantly, and thus, secondary hypothesis No.2 was rejected.

Secondary hypothesis No. 3 was also rejected. Being a unit bank or a branch bank, or the number of branch offices operated did not, by themselves, significantly affect the profits of the banks included in the study. Growth in the number of branch offices operated by a bank helped that bank to increase the total volume of deposits, as well as, of the loans extended, but the benefit of increased revenues was completely offset by the additional cost resulting from the opening of new branch offices.

Further investigation of commercial bank operations in Turkey revealed some plausible reasons for the above findings. Banks which specialized in financing foreign trade transactions did relatively better than the banks which did not, or could not, go into this type of lending. Both the relatively lower risk involved in foreign trade lending and the additional commissions earned for handling such loans made this type of lending quite profitable to those banks which had the means and the experience to handle them.

The volume of commercial deposits held by commercial banks was smaller than that of savings deposits. However, due to the relatively lower cost of the former, banks were able to earn bigger profits on such funds. The indirect relationship of commercial deposits with compensating balances and with bank service commissions were the other

two causes of this higher profitability.

Need for additional personnel to handle the rapidly growing volume of operations, continuous employee turnover among the lower echelons, effective pressure by the unions for wage and salary increases, as well as, for additional fringe benefits were major constraints on the size of profits made by commercial banks. Banks which tried to solve their personnel problems by hiring better qualified people and by providing the necessary motivation to make them work more efficiently managed to keep their total personnel cost relatively low. Since legal restrictions on interest and commission rates stopped Turkish commercial banks from passing even part of the additional cost to their customers, the only rational way open to banks was to find ways to increase the efficiency of the personnel by increasing both the quality and the volume of transactions handled by them. In other words, average personnel cost per Turkish Lira of deposits, plus, loans extended had to be kept as low as possible. Banks which realized this, and succeeded in doing so, managed to show bigger profits than the others.

The socio-economic problems of being a developing country had their effects on the commercial banking system of Turkey. High demand for money and credit, high rate of inflation, and absence of competition from other financial institutions caused Turkish commercial banks, in general,

to emphasize more on growth - growth in size, in number of branches and in volume of operations - but less on efficiency. The most common and observable factor concerning the operations of Turkish banks was the great effort spent to attract savings deposits. Continuous advertisements in the daily papers and on radio and television, promotional prizes and gifts awarded to depositors, opening new and attractive offices on every suitable corner of a town or a city were effective tools in reaching this goal. Banks seemed to believe that the end justified the means. However, both the findings of this study, as well as, the monopolistic position of banks as the only depository institutions indicate the need for a change in their policies. Inflation, steadily increasing availability of good quality bonds and debentures, and the understandable desire on the part of people to invest in real estate, all help to make time deposits seem less attractive to potential savers. Therefore, a substantial portion of savings deposits are not time but demand, despite the relatively higher rate of interest paid on the former. Obviously, demand deposit accounts are opened mostly for daily money transactions and for security against possible losses due to theft, fire and so on. It is difficult to believe that interest can be an effective factor in attracting such deposits.

Pass-book savings accounts for demand deposits are used almost in the same way checking accounts are used, thus, requiring extra handling time and effort. Therefore, it seems unreasonable on the part of banks to pay interest on demand deposits. Instead, promoting the using of checking accounts and encouraging people to use checks rather than hand-to-hand cash would not only increase the investable funds of commercial banks, but would certainly help depositors to save both time and effort in conducting their normal daily money transactions.

The advantages of using checks are common knowledge and need not be reported here. But in a country where the switch from species to paper money is relatively new, getting the people, and even some of the bank managers and government officials used to the concept of checking accounts, is another matter. Major changes in penal code and in other relevant legislation, establishment of nation-wide credit agencies, improvement of interbank communication system and of related physical facilities should replace the existing inefficient, costly, and sometimes frustrating, protective measures taken by individual banks against possible fraud. At the present, checking system in Turkey does not provide any significant advantages to depositors. Changes in the procedures should be followed by a nation-wide campaign by all commercial banks to promote the using of checking accounts. Acceptance of payment by checks, by the tax authorities and by utility companies are

useful steps towards this goal. At the beginning, it may be necessary not to charge handling fees to the depositors. However, any possible increase in the handling costs due to the switch from pass-book demand deposits to checking deposits must be compared to the savings due to the non-payment of interest on the latter. Later on, gradual initiation of handling fees or minimum compensating balances could provide banks with an important source of income.

The present emphasis of bank advertisements on the monetary benefits to depositors should be replaced by emphasis on the safety, convenience and time saving aspects of checking accounts. But what is advertised must actually be practiced. This necessitates a change in the attitude of bank employees and officers. Protection against fraud can and should be provided without inconveniencing customers.

A major change in the attitude of and the procedures adopted by bankers is vitally necessary, even without the promotion of checking accounts. The present system of checking and rechecking each and every step of transactions by too many supervisors, whether it is a payment or receipt of money, is not only time consuming and frustrating to customers, but also increases the already high cost of handling such transactions. Personnel expenses is an area where substantial savings can be achieved by

effective changes in the handling procedures. This, in turn, would enable banks to pay higher wages to fewer employees. This increase in wages would be more than compensated by the decrease in turnover and the increase in the productivity of the personnel. Furthermore, customer satisfaction is usually more effective than expensive advertising, especially in the business of banking.

The controversy of branch banking versus unit banking can be solved, once it is realized that opening a new branch is nothing more or less than a capital project necessitating the allocation of a certain amount of funds. If it is properly analyzed as such and thought to have a reasonable chance of making a positive contribution to the long range overall profitability of a bank, there is no reason why that bank should not go ahead and open a new branch. Neither operating as a unit bank, nor opening a new branch at every corner can, by itself, affect the profitability of a bank. The overall objectives and policies, availability of funds, and the probable contribution to the networth should be the principal criteria in making such investments.

No rational excuse could be found, nor any was offered by the bank executives interviewed for the practice of extending long-term loans in the form of short-term. It is a dangerous practice both for the banks, as well as, for the

borrowers. Medium- and long-term credit can be extended by commercial banks provided these loans are formally accepted as such by both parties and the special credit investigation necessary for such loans is properly conducted beforehand. Creation of new investment and development banks specialized in medium- and long-term lending, by commercial banks themselves, is another way to meet the existing and rapidly growing demand for such loans.

High cost and lack of efficiency to a certain degree seem to be the general characteristics of not only commercial banks but of almost all types of business in Turkey. Rapidly increasing demand for all sorts of goods and services, lack of effective competition, and the resulting high profit margins do not provide the necessary stimulus for conscious and effective efforts to reduce costs. The fact that no studies similar to this one were ever conducted by either the Banks Association of Turkey or by individual banks was a good example of this lack of interest in cost and profit analysis.

Despite the above mentioned deficiencies it would be wrong and unfair to classify Turkish commercial banking system as totally inefficient. Considering the fact that the real economic development in Turkey has a past of less than three decades, these banks, in general, have done a good job in adapting themselves to the rapidly changing

economic, social, cultural and political conditions, in a relatively short time.

Operating inefficiencies and multiple outlets are the normal outcome of any form of retail maintenance. Therefore, Turkish bankers are possibly responding logically to a type of public policy which does not encourage efficiency and optimum resource allocation. It is necessary to create a framework within which bankers would be encouraged to be efficient and punished by losses if they continued to stay with inefficient operating methods.

One partial solution to this problem would be the relaxation of the fixed interest rate ceiling policy. As noted earlier, the ceilings on interest rates, both on deposits and loans, are set by the Central Bank of Turkey. These rates are almost always set below the free market rate of interest, and the gap widens when the government fails to modify the existing rates in conformity with economic changes. As a result, "ceiling" rates become, in actuality, "fixed" rates applied by all banks at all times. This, of course, restricts the use of interest rates as a means of competition among commercial banks. Therefore, competition for funds takes the form of expensive advertising, multiple outlets and promotional prizes and gifts given to depositors.

A more flexible interest rate policy, especially with respect to time deposits, would, in all probability, increase the volume, as well as, the cost of such funds to commercial

banks. However, decrease in profit margins would be compensated by a larger volume of business due to the increase in funds available for lending. Provided, of course, necessary measures are taken by banks to maintain or lower their existing over-heads. Motivation to do so would be provided by the competition created by flexible interest rates.

Flexible interest rates on loans, on the other hand, would make it possible for Turkish bankers to apply different risk premiums on different types of loans. This, in turn, would encourage them to search for new fields of investment. Direct consumer lending and credit cards are two of the potential sources of income which should be seriously considered by Turkish bankers, if a more flexible interest rate policy is adopted by the government. An additional benefit of this policy would be the motivation to formally recognize the actual term of their loans and treat them as long-term when such is the case. Extra cost involved in long-term credit analysis and the relatively higher risk inherent in such loans can be covered by higher rates of interest if necessary. Long-range planning, systematic recognition of risk, effective cost-profit analysis, and alertness for possible changes in the socio-economic environment would be the logical outcome of a more flexible interest rate policy.

Another possible public policy change with respect to commercial banks would be to exempt the interbank transactions from the 20 per cent transaction tax currently charged on them. Such exemption would encourage specialization among commercial banks, which, in turn, would tend to lower their over-all risks. For example, instead of being forced to extend long-term loans in short-term form, they would then be able to lend part of their funds to other banks which are better prepared to handle long-term loans.

A third major policy change aimed at encouraging operating efficiency would be modification of the Turkish Law on Banks to allow formation of financial institutions other than banks. The monopolistic condition presently enjoyed by Turkish commercial banks does not provide for the necessary stimulus to increase operating efficiency. Formation of specialized consumer finance institutions, credit unions, mutual savings banks, savings and loan associations, and other such financial intermediaries would create a competitive milieu which would automatically discourage inefficiency. More meaningful and effective disclosure requirements applicable to the operations of all financial institutions would help to enhance the advantages to be derived from such competition.

It is strongly recommended that studies and research similar to this one are continuously conducted by individual

banks, and preferably, by the Banks Association of Turkey. Mere compilation of statistical data, in its present form, is far from sufficient. It is also recommended that this study is updated every two or three years, again, preferably by the BAT, or by the big banks such as N-01, N-20 or N-22. It would be advisable to use monthly averages instead of year-end figures to avoid the distorting effects of possible window dressing. Such data are available to BAT although not to an outsider. It would also be advisable to include in the studies, the commercial banking activities of banks founded by special legislation, provided, a dependable method is utilized to segregate their banking activities from their non-banking operations.

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APPENDIX

APPENDIX

Banks Operating in Turkey at the End of 1970

Banks Founded by Special Laws	Symbol	Location of Head Office	Year Founded	Number of Branches	Equity Capital TL.000	Deposits TL.000	Loans TL.000
Denizcilik Bankası	S-01	İstanbul	1952	34	134,555	211,562	155,635
Etibank	S-02	Ankara	1935	45	505,812	607,784	668,043
İller Bankası	S-03	Ankara	1933	1	820,155	44,654	1,804,802
İstanbul Emniyet Sandığı	S-04	İstanbul	1868	36	14,882	399,749	253,920
Sümerbank	S-05	Ankara	1933	22	940,027	202,616	1,208,930
T.C.Turizm Bankası	S-06	İstanbul	1962	1	96,507	--	93,665
T.C.Ziraat Bankası	S-07	Ankara	1863	775	1,441,909	10,200,064	11,692,743
T.Emlâk Kredi Bankası	S-08	Ankara	1927	123	672,636	1,410,296	2,699,578
T.Halk Bankası	S-09	Ankara	1938	202	254,769	823,691	1,469,880

Banks Founded by Special Laws	Symbol	Location of Head Office	Year Founded	Number of Branches	Equity Capital TL.000	Deposits TL.000	Loans TL.000
T.Öğretmenler Bankası	S-10	Ankara	1959	52	28,351	258,174	134,155
T.Vakıflar Bankası	S-11	Ankara	1954	141	68,712	1,113,330	918,358
				1,432	4,978,315	15,271,920	21,099,709
Other National Banks							
Akbank	N-01	İstanbul	1948	253	95,198	3,066,924	2,012,047
Anadolu Bankası	N-02	İstanbul	1962	59	41,611	323,425	246,990
Çaybank	N-03	Rize	1958	4	2,753	5,731	2,709
Demirbank	N-04	İstanbul	1953	23	11,804	66,131	50,201
Efes Bank	N-05	Zonguldak	1932	1	3,209	3	775
Egebank	N-06	İzmir	1928	6	6,220	19,820	24,105
Eskişehir Bankası	N-07	Eskişehir	1927	18	9,760	51,334	35,608

Other National Banks	Symbol	Location of Head Office	Year Founded	Number of Branches	Equity Capital TL.000	Deposits TL.000	Loans TL.000
İstanbul Bankası	N-08	İstanbul	1953	44	22,655	192,152	128,170
İşçi Kredi Bankası	N-09	Kayseri	1954	1	4,701	29,684	17,958
Kocaeli Bankası	N-10	İzmit	1927	4	3,842	24,489	13,919
Maden Kredi Bankası	N-11	İstanbul	1958	1	6,280	--	2,680
Milli Aydın Bankası	N-12	Aydın	1914	3	6,362	4,702	6,906
Pamukbank	N-13	İstanbul	1955	50	24,964	268,561	194,104
Şekerbank	N-14	Ankara	1954	85	37,821	401,108	318,978
Türk Dış Ticaret Bankası	N-15	İstanbul	1964	5	18,028	254,784	216,177
Türk Ticaret Bankası	N-16	İstanbul	1914	169	61,680	1,792,976	1,304,695
T.Bağcılar Bankası	N-17	Manisa	1917	8	--	13,499	7,748

Other National Banks	Symbol	Location of Head Office	Year Founded	Number of Branches	Equity Capital TL.000	Deposits TL.000	Loans TL.000
T.Garanti Bankası	N-18	İstanbul	1946	147	51,490	1,274,874	928,501
T.İmar Bankası	N-19	İstanbul	1928	2	16,370	82,228	87,019
T.İş Bankası	N-20	Ankara	1924	437	465,832	8,915,198	5,956,941
T.Tütüncüler Bankası	N-21	İzmir	1924	18	7,326	51,247	54,256
Yapı ve Kredi Bankası	N-22	İstanbul	1944	305	196,000	4,420,835	2,952,400
				1,643	1,093,906	21,259,705	14,562,887
Local Banks							
Adapazarı Emniyet Bankası	L-01	Adapazarı	1919	1	424	407	433
Afyon Terakki Servet Bankası	L-02	Afyon	1926	1	609	413	827
Denizli İktisat Bankası	L-03	Denizli	1927	1	1,596	6,314	4,233

Local Banks	Symbol	Location of Head Office	Year Founded	Number of Branches	Equity Capital TL.000	Deposits TL.000	Loans TL.000
Elazığ İktisat Bankası	L-04	Elazığ	1929	1	1,223	1,314	1,741
Sağlık Bankası	L-05	Isparta	1928	1	510	14	--
				5	4,362	8,462	7,234
Foreign Banks							
Banka Komerçiyale İtalyana	F-01	İstanbul	1919	5	7,402	111,916	95,089
Banko di Roma	F-02	İstanbul	1911	4	11,003	114,564	107,413
Holantse Bank-Uni N.V.	F-03	İstanbul	1921	2	6,487	44,098	64,936
Osmanlı Bankası	F-04	İstanbul	1863	93	63,064	1,141,083	859,981
Uluslararası End.ve Tic. Bankası	F-05	İstanbul	1888	7	18,758	110,905	122,441
				111	106,714	1,522,566	1,249,860

Development Banks	Symbol	Location of Head Office	Year Founded	Number of Branches	Equity Capital TL.000	Deposits TL.000	Loans TL.000
Devlet Yatırım Bankası	D-01	Ankara	1964	1	1,035,763	--	12,445,590
Sınaî Yatırım ve Kredi Bankası	D-02	İstanbul	1963	1	23,410	--	513,328
T. Sınaî Kalkınma Bankası	D-03	İstanbul	1950	1	208,509	--	1,674,005
				3	1,267,682	--	14,632,923
Central Bank							
T.C. Merkez Bankası	C-01	Ankara	1930	16	226,633	3,419,357	15,215,068
				3,210	7,677,612	41,482,010	66,767,681

(Source: BAT Publication No. 43)