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AN ANALYSIS OF THE RESPONSIVENESS OF CLASSES OF COMMERCIAL BANKS WITHIN THE SIXTH DISTRICT TO FEDERAL RESERVE SYSTEM MONETARY POLICY ACTIONS: 1962-1971

by

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A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in the
Graduate School of Business of
The University of Alabama

UNIVERSITY, ALABAMA

1974

ACKNOWLEDGEMENTS

Without the direction, support, and encouragement of Dr. Richard E. Olson this dissertation would probably not have achieved its completion--certainly not in its present form.

Dr. Marcus Whitman, Professor Emeritus of Finance, was always most willing to furnish guidance and help during my years at the University of Alabama. His interest is appreciated.

The computer time used in this study was extensive. The funding provided by the University of Alabama for computer time made the completion of this study possible.

The support of my parents, wife and children led to the completion of this challenge.

Robert D. Johnston
1974

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CHAPTER I

INTRODUCTION

Purpose

This study concerns the responsiveness of commercial banks in the Sixth Federal Reserve District to changes in Federal Reserve System monetary policy for the period from 1962 through 1971. This responsiveness has been analyzed in terms of various classes of commercial banks with primary concern upon the differences in response by class. The basic purpose of this study has been to estimate these differences in response.

During the ten-year period from January, 1962, through December, 1971, commercial bank asset accounts for country member banks in the Sixth District experienced an increase of 202 percent.[1] For this same period those banks in the district defined as reserve city banks experienced a growth in total assets of 135 percent.[2] During this period, the Federal Reserve System actively pursued a monetary policy

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[1]Federal Reserve Bank of Atlanta, Research Department, "Statement of Condition of Sixth District Member Banks," January 25, 1962, and December 29, 1971.

[2]Ibid.

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[2]Ibid.

designed to control the expansion of commercial bank asset and deposit accounts. Table 1 indicates that the basic monetary policy position of the Federal Open Market Committee changed twenty-four times over this ten-year period. In addition, this table shows the responses, in terms of investment holdings, of reserve city banks and country banks in the Sixth District to such changes in monetary policy. During the twenty-four policy changes over this ten-year period, the larger reserve city banks responded by varying their investments in an opposite direction from country banks on seven occasions. Responses during the other seventeen changes were rarely of approximately the same magnitude.

This study has considered these varying responses of commercial banks, first in terms of reserve city banks versus country banks and secondly in terms of banks classified by Federal Reserve membership and by deposit size. The hypotheses are as follows:

1. The response of reserve city banks to monetary policy actions has been of a greater relative magnitude than has been the responses of country banks to the same actions.
2. Large banks, as defined by deposit size, responded to changes in monetary policy actions with a greater relative magnitude than did small banks.
3. Banks which are members of the Federal Reserve System have responded to changes in monetary policy actions with a

TABLE 1

STARTING DATES OF PRINCIPAL MONETARY POLICY DECISIONS OF THE FEDERAL OPEN MARKET COMMITTEE, 1962 THROUGH 1971, AND NET AND PERCENTAGE CHANGES IN INVESTMENTS DURING THE IMPLEMENTATION OF EACH POLICY EXPERIENCED BY RESERVE CITY AND COUNTRY BANKS IN THE SIXTH DISTRICT

Starting Date	Reserve City Banks		Country Banks	
	Net Change (in millions)	Percentage Change	Net Change (in millions)	Percentage Change
Jan. 1, 1962	$-11	- .73	$ 74	2.62
June 1, 1962	8	.53	-13	- .45
June 19, 1962	20	1.32	52	1.82
July 10, 1962	7	.46	62	2.14
Dec. 18, 1962	- 8	- .52	52	1.75
Jan. 8, 1963	51	3.33	42	1.39
May 7, 1963	-39	-2.47	-51	-1.67
Aug. 20, 1963	106	6.87	101	3.35
Aug. 18, 1964	85	5.16	155	4.98
Mar. 2, 1965	0	.00	167	5.11
Dec. 14, 1965	21	1.21	222	6.46
Sept.13, 1966	-74	-4.22	2	.05
Nov. 1, 1966	169	10.06	201	5.49
May 2, 1967	109	5.09	443	11.48

TABLE 1--Continued

Starting Date	Reserve City Banks		Country Banks	
	Net Change (in millions)	Percentage Change	Net Change (in millions)	Percentage Change
Nov. 27, 1967	$ 51	2.60	$311	7.23
April 30, 1968	-11	- .55	- 28	- .61
Aug. 13, 1968	111	5.56	362	7.89
Dec. 17, 1968	-61	-2.89	80	1.62
April 29, 1969	-212	-10.35	-206	-4.10
Jan. 15, 1970	-27	-1.47	-112	-2.33
Mar. 10, 1970	102	5.64	342	7.27
Aug. 18, 1970	459	23.71	879	17.42
April 6, 1971	-18	- .72	242	4.09
June 6, 1971	153	6.44	541	8.77

Source: Starting dates from the Annual Reports of the Board of Governors of the Federal Reserve System, 1962 through 1971. Investment data based upon total investments reported by the Federal Reserve Bank of Atlanta, Research Department, in "Statement of Condition of Sixth District Member Banks," January, 1962, through December, 1971.

greater relative magnitude than have banks which are not members of the Federal Reserve System.

This study derives its importance because of the fact that a relatively large number of small banks, both Federal Reserve System country banks and non-member banks, control a significant quantity of total bank resources within the Sixth Federal Reserve District. The following chapter includes a discussion of previous works relating to measuring bank responsiveness to monetary policy and, as has been noted, most of these studies concern only large banks. If small banks in the Sixth Federal Reserve District do not respond to changes in monetary policy in the same manner as large banks, then the effect of such policy changes will vary from place to place within the district and the overall response will not be as great as might be desired. Thus the importance of this study is to define these differences in response by bank class and bank deposit size.

Scope and Limitations

The study period involved begins with January, 1962, and ends with December, 1971. This period was selected because of the relatively rapid growth in assets and deposits experienced by country member banks within the Sixth District during this ten years.

Bank balance sheet accounts have been considered using two different approaches. The first approach considered the

following four categories of accounts: total assets, total loans and discounts, total investments, and total deposits. These accounts, for reserve city and country banks as classes, have been analyzed on a monthly basis for differences in response to monetary policy.

A second approach to analyzing the differences in response to monetary policy has been based upon the balance sheet accounts reported in the semi-annual call reports filed by individual banks. This part of the analysis has considered the following three categories: reserve city banks, country banks, and non-member commercial banks in the Sixth District. These three categories have each been subdivided into seven deposit size classes. In this section twelve asset account categories and thirteen liability account categories have been developed as well as minority interest, reserve, and capital accounts. These accounts are defined in Chapter III.

The appropriateness of the various policy actions undertaken by the Federal Reserve System, relative to the existing economic conditions, has not been considered. Additionally, the effect of bank holding companies and state branch banking laws on the responsiveness of banks to changes in monetary policy is outside the scope of this study.

Organization of the Study

Chapter II presents a review of the literature regarding bank responses to changes in monetary policy. Included in

this section is a discussion of the works relating to bank free reserves as an indicator of bank differences in response to monetary policy. A summary of the work of Mr. Andrew Brimmer, of the Board of Governors of the Federal Reserve System, regarding differential bank responses to monetary policy is also presented in Chapter II. A review of several empirical studies conducted during the 1950's and early 1960's is presented along with a general discussion of portfolio models. The second chapter concludes with a summary of the empirical results of recent bank portfolio studies as related to monetary policy.

The research procedure is presented in Chapter III. As the hypotheses of this study concern the responsiveness of various balance sheet accounts of classes of commercial banks to changes in monetary policy; a series of sixty-four models are used to measure this responsiveness in terms of the correlation of the net change in these balance sheet accounts to corresponding net changes in monetary policy variables during the same period. A stepwise regression procedure is used to generate the correlation data and the related significance values for each model. The R^2 values generated for each application of each model are used to measure responsiveness. Included in this section is an explanation of this statistical technique and the form of the output.

The data base has been twofold. The first group of banks has been reserve city and country banks within the Sixth District in terms of monthly observations grouped by Open Market Committee policy actions. The second group has been based upon semi-annual data by bank deposit size. These deposit size classes are as follows: under $5 million, $5 to under $10 million, $10 to under $25 million, $25 to under $50 million, $50 to under $100 million, $100 to under $250 million, and $250 million and over. Reserve city banks, country banks, and non-member banks have been grouped by these seven deposit size classes. Chapter III describes this data base. The independent variables and their quantification for the statistical analysis are defined in this chapter.

Chapter IV considers asset responsiveness to changes in the independent variables for both the monthly and the semi-annual data bases. The asset categories for the monthly data base are total assets, total loans and discounts, and total investments. The twelve asset categories for the semi-annual data are described in the third chapter.

The responsiveness of liability accounts to monetary policy changes is the subject of Chapter V. Total deposits are considered for the monthly data base and thirteen liability classifications are analyzed based on semi-annual data. These classifications are defined in Chapter III.

Chapter VI considers minority interest, reserve, and capital accounts on a semi-annual basis. Such data are not available on a monthly basis.

The last chapter summarizes the findings and offers conclusions.

An Appendix presents the data developed for the various deposit size classes of the banks for the semi-annual analysis.

CHAPTER II

REVIEW OF THE LITERATURE

The questions of the effectiveness of monetary policy and bank behavior have been discussed extensively in both academic literature and professional bank literature. Most of the work done in this area, however, has been only tangentially related to the subject of this study. The purpose of this chapter is to consider those works which are at least in part related. A full review of these works is not presented as these works are not primarily concerned with the specific subject of this study. Only those portions of these works relating to the subject of this study are discussed within this review.

The work relating to free reserves as an indication of either the proper course for monetary policy to take or the effectiveness of such policy is considered first. Mr. Andrew F. Brimmer, a member of the Board of Governors of the Federal Reserve System, has been concerned with the differential responses of banks to changes in monetary policy. A summary of his work and concern is presented next. A review of some general empirical studies follows. Portfolio models of

individual bank behavior have been presented since the nineteenth century and are quite numerous. Representative portfolio models are discussed in the following section to the extent that they apply to some of the assumptions of monetary policy. Three integrated models of bank portfolio behavior with their related empirical studies are the subject of the last review section. A summary follows.

Free Reserves

A 1958 study by the research department of the Federal Reserve Bank of New York, regarding the importance of free reserves as an indication of the effectiveness of monetary policy, reported that money market banks (central reserve city banks and reserve city banks) were much more active in seeking to place their excess reserves than were country banks.[1] The significance of this observation is that it is the distribution of free reserves between money market banks and country banks that is important in predicting the effect of monetary

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[1] "The Significance and Limitations of Free Reserves," Monthly Review, Federal Reserve Bank of New York, Vol. XL, No. 11 (November, 1958), pp. 163-67.

policy changes, not just the aggregate amount of such free reserves in the total banking system.[2]

Mr. William R. Bryan, in a dissertation prepared at the University of Wisconsin in 1961, was concerned with the differences in the characteristics responses of individual banks to changes in deposits and reserves.[3] Mr. Bryan suggested that the distribution of deposits between classes of banks may be a significant factor in influencing the entire banking system. He concluded that different classes of banks may desire to maintain different ratios of free reserves; thus an increase in free reserves to total deposits, caused by an ease in monetary policy, may not be reflected with the same relative magnitude in the accounts of country banks versus reserve city banks. It was suggested that an increase in total deposits held by country banks may increase the aggregate desired free reserve ratio for the banking system,

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[2]Work relating to free reserves and the federal funds market in the Sixth Federal Reserve District has been done by Harry Brandt and Paul A. Crowe, "The Federal Funds Market in the Southeast," Monthly Review, Federal Reserve Bank of Atlanta, Vol. LIII, No. 1 (January, 1968), pp. 7-13, and James Murray Boughton, "The Effect of an Active Market in Federal Funds and the Transmission of Monetary Policy" (unpublished Ph. D. dissertation, Department of Economics, Duke University, 1969). Both of these works suggest that the federal funds market increases the effectiveness of monetary policy and that this market seems to be concentrated among large banks.

[3]William R. Bryan, "Bank Purchases of Earning Assets: A Decision Unit Model" (unpublished Ph.D. dissertation, Department of Economics, University of Wisconsin, 1961).

whereas the reverse effect could be expected if the increase were within reserve city banks.[4]

The relative usefulness of the three primary credit control instruments of the Federal Reserve System and their coordination were the subject of a 1963 paper by Professor Warren L. Smith of the University of Michigan.[5] Professor Smith, in discussing the role of discount policy, noted for his study period of 1953 through 1962 that excess reserves tended to be heavily concentrated in country banks while it was the reserve city banks that most often borrowed from the Federal Reserve Bank in their district.[6] He thus concluded that country banks are better able to absorb tightening monetary policy pressures from the Federal Reserve System than are reserve city banks. As would be expected, the effect of a change in such policy would be greater upon reserve city banks.

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[4]One of the most comprehensive empirical studies of free reserves is by A. James Meigs, Free Reserves and the Money Supply (Chicago: University of Chicago Press, 1967). This regression analysis study deals with only aggregate data and does not consider banks by size of other classifications. However, some of the assumptions employed in this study are used in the following chapter.

[5]Warren L. Smith, "The Instruments of General Monetary Control," The National Banking Review, Vol. I, No. 1 (September, 1963), pp. 47-77.

[6]The same relationship was observed within the Sixth Federal Reserve District for the period 1968-1972. See Arnold A. Dill, "Member Bank Borrowing: Process and Experience," Monthly Review, Federal Reserve Bank of Atlanta, Vol. LVIII, No. 4 (April, 1973), pp. 50-54.

Statements of Mr. Andrew F. Brimmer

Within the Board of Governors of the Federal Reserve System, Mr. Andrew Brimmer has been active in suggesting monetary policy modifications based upon bank asset and deposit size. In analyzing the effect of the 1968 change in monetary policy to restraint, for the Annual Bankers' Forum at Georgetown University in 1969, Mr. Brimmer pointed out that the deposit adjustment brought about by the policy change was unevenly spread throughout the banking system. He noted that the adjustment on the part of larger banks was much greater than for smaller banks.[7]

Mr. Brimmer further refined his ideas in a presentation to the San Francisco Bond Club on April 1, 1970.[8] A section of his presentation was devoted to the differential impact of monetary restraint on the banking structure. The basis of his remarks in this section centered upon the response of 340 major banks in the United States to the 1968 change in monetary policy. He divided these banks into the following three categories: twenty "multinational banks" characterized by a significant volume of foreign lending and

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[7]Andrew F. Brimmer, "United States Monetary Policy in 1969," paper presented at 16th Annual Bankers' Forum, Georgetown University, Washington, D.C., 4 October, 1969, pp. 14-15.

[8]Andrew F. Brimmer, "The Banking Structure and Monetary Management," paper presented at the San Francisco Bond Club, San Francisco, California, 1 April, 1970.

participation in the Euro-dollar market, sixty "major regional banks," and 260 "large local banks" having assets of at least $100 million.[9] During this period of monetary tightening the multinational banks experienced the largest decline in deposits, with a slightly smaller decline by the major regional banks, and a much smaller reduction occurring in the large local group.[10] Mr. Brimmer further noted that while the larger multinational banks did experience a reduction in deposits they were able, for the most part, to escape reducing earning assets by increasing nondeposit funds sources such as the sale of Euro-dollars. In this way, while they did not totally avoid the effects of monetary restraint, they were able to offset some of the effect.

Mr. Brimmer used these differential responses to argue for a revision of reserve requirements to include possible reserve required against certain classes of assets in addition to reserves on deposits.[11]

Before the Subcommittee of Financial Institutions of the Committee on Banking, Housing, and Urban affairs of the United States Senate on April 7, 1971, Mr. Brimmer presented a statement giving support to the idea of variable reserve

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[9]Ibid., pp. 14-16.

[10]Ibid., Tables 4 and 5.

[11]Ibid., pp. 26-29.

requirements against bank assets.[12] His data base was two-fold for this presentation. The first part included twenty multinational banks, sixty major regional banks, and 250 large local banks.[13] The data period for these classes was from 1968 through 1970, and the data was presented in terms of yearly changes and ratios. The second part of the data base classified banks by the following eight deposit size groups: under $5 million, $5 to $10 million, $10 to $25 million, $25 to $50 million, $50 to $100 million, $100 to $500 million, $500 million to $1 billion, and over $1 billion. These data were presented in ratio form for all insured banks, all member banks, and all national banks as of June, 1966, and June, 1970.

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[12]U. S. Congress, Senate, Committee on Banking, Housing, and Urban Affairs, Statement by Mr. Andrew F. Brimmer Before the Subcommittee on Financial Institutions of the Committee on Banking, Housing, and Urban Affairs, 92nd Cong., 1st sess., 7 April, 1971.

[13]This is in contrast to the 260 "large local banks" he used in his presentation to the San Francisco Bond Club one year earlier. This figure was selected because all of these banks were weekly reporting banks, with assets of at least $100 million, for which weekly reports were available for the three-year period used in this part of Mr. Brimmer's presentation.

[14]These are the same basic size categories employed in the analysis of banks within the Sixth Federal Reserve District for this study. The only difference is the use of one category of over $500 million in deposits in contrast to the two categories Mr. Brimmer used for these relatively large banks.

A partial summary of the observations of Mr. Brimmer based upon the data he presented follows:

> Small banks hold a larger proportion of their earning assets in securities than do larger banks: the ratio of total investments (mainly U. S. Government and State and local issues) to total earning assets declines continually as the size of banks increases. While there are minor differences among various classes of banks, the ratio generally drops from about 40 percent for the smallest banks to about 15 percent for the largest.
>
> Holdings of U. S. Treasury securities become a progressively smaller proportion of total earning assets - and of total investments held - as the size of banks increases.
>
> Holdings of State and local government securities, expressed as a percentage of total earning assets, are generally higher at medium size banks than at either the smallest or largest size group.
>
> The ratio of total loans (including Federal funds sold) to total earning assets rises continually as the size of banks increases. Again, while there are some differences among bank classes, the ratio is generally about 60 percent for the smallest size group and rises to about 75 percent at the largest size group.
>
> Of the various categories of loans, business loans display the closest--and clearest association with the size of the bank. The relative importance of such loans compared with total earning assets climbs progressively and in tandem as the size of banks advances. The ratio of business loans to total earning assets rises from about 8 percent at the smallest size group to about 25 to 30 percent at the largest.[15]

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[15]This is taken from page 13 of Mr. Brimmer's statement before the previously mentioned U. S. Senate subcommittee on 7 April, 1971.

All of these observations lead to the general conclusion that larger banks maintain a tighter reserve position than do smaller banks. Thus a change in monetary policy will require an immediate response on the part of large banks, either in the form of seeking additional reserves in the event of a restrictive policy or by expanding assets (probably loans) with an easing policy. In contrast, smaller banks, with relatively large excess reserves, will not be forced into a response to a policy change with the same urgency of larger banks.

Mr. Brimmer again used this presentation as support for legislative action giving the Federal Reserve System the authority to set supplemental reserve requirements on bank assets. Particularly, he cited business loans of large banks as an asset category that has not responded to changes in monetary policy, and thus urged the creation of an additional set of monetary policy tools which the Federal Reserve System can use to assure that the lending policies of banks conform to the basic aims of monetary policy.[16]

General Empirical Studies

Empirical studies of bank behavior have been performed for a number of different purposes. The following discussion includes four general empirical studies which, even though

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the basic intent of the studies differs, offer some evidence of differential responses to monetary policy on the part of individual banks. These studies are presented in the chronological order in which they were published.

One of the first empirical studies regarding the differences in response to monetary policy between country banks, reserve city banks, and central reserve city banks was performed by Mr. Ira O. Scott, Jr., during the period from 1951 through 1953.[17] Mr. Scott noted that during the entire tightening money period from June, 1951, through May, 1953, country banks had a positive free reserve position contrary to the declining free reserve trend of the central reserve city and reserve city banks. Moreover, the country banks exhibited a significant lag response relative to the other two classes of banks. After observing the effect of open market operations on individual banks in different locations, he concluded that outlying areas, characterized by country banks, were less responsive to Federal Reserve pressures than were money market banks. He suggested that, in order for open market operations to have a faster impact, other capital markets would need to be established closer to smaller banks.

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[17]Ira O. Scott, Jr., "The Regional Impact of Monetary Policy," Quarterly Journal of Economics, Vol. LXIX (May, 1955), pp. 279-83.

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In a survey done for the American Bankers Association by Mr. E. Sherman Adams in 1957, it was concluded that the tightening effect of the monetary policy change which began in 1955 had borne upon large banks more heavily than upon small banks.[18] This survey included 1,400 banks which, at the time of the survey, had a combined total of two-thirds of all the assets of all commercial banks in the United States. The questions were phrased in terms of the effect of 1955 Federal Reserve policy changes upon bank credit policy. The responses were grouped by the following bank asset size categories: under $10 million, $10 to $50 million, $50 to $500 million, and over $500 million. The surveyed banks were asked if their lending policies had become more selective since the tightening of monetary policy in 1955. The choices available were either more selective, or unchanged, or more liberal. As would be expected, most banks responded that their policies had become more selective. However, in each of the response categories a greater percentage of the larger banks indicated that they had adopted a more selective policy. None of the banks with over $500 million in assets indicated a more liberal policy, while a small percentage of all of the other size categories did indicate such.[19]

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[18] E. Sherman Adams, "Monetary Restraint and Bank Credit," Banking, Vol. L, No. 3 (September, 1957), pp. 66-72.

[19] Ibid., p. 69.

The survey also inquired as to the banks' observations about credit availability in their respective localities. Again as bank size increased by the four asset size classes, the perceptions of credit availability tightened.[20] Mr. Adams concluded that, for this particular tight money period, bank credit was readily available to most bank customers except at a comparatively small number of major money market banks where monetary policy had been most effective in restraining the expansion of bank credit.

From 1953 through 1961 there were four periods of monetary restraint and three periods of monetary ease. Mr. Robert J. Lawrence did a case study of the banks surrounding Chicago to determine the differential effect of this changing monetary policy upon three classes of banks.[21] His data included the following three bank classes: central reserve city banks of Chicago (eleven banks), all member banks serving five suburban communities surrounding Chicago (forty-seven banks classified as country banks), and all member banks of nineteen counties surrounding Chicago serving basically an agricultural market (seventy-six banks also classified as country banks).

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[20]Ibid., p. 70.

[21]Robert L. Lawrence, "Bank Location and the Differential Effects of Monetary Policy: A Case Study," The National Banking Review, Vol. 1, No. 4 (June, 1964), pp. 513-29.

Mr. Lawrence based his analysis upon call report data and used a reserve position ratio (RPR) to measure responsiveness. A reserve position ratio was defined as the ratio of assets which banks would be expected to use to meet deposit drains and/or increased loan demand to total deposits. The major factors affecting this ratio would be deposit flows, changes in loans outstanding, and the reserve policy of the Federal Reserve System.

Given this interdependency, Mr. Lawrence noted that the Federal Reserve attempted to raise the reserve position ratio during periods of monetary ease and lower it during periods of monetary restraint. However, the seventy-six banks located in the surrounding agricultural counties of Chicago experienced no significant movement in their reserve position ratio. In fact, their combined RPR declined by the same amount regardless of the type of monetary policy in effect. The combined RPR of the forty-seven suburban banks declined during periods of restraint and remained virtually unchanged during periods of ease. In contrast, only the central reserve city banks responded as was expected by increasing their aggregate RPR during monetary ease and decreasing this ratio during restraint.[22]

Based upon his analysis Mr. Lawrence offered four conclusions. First, reductions in the reserve requirements

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[22]Ibid., p. 528.

of effect than do corresponding increases during periods of restraint. The relative magnitude of the effect is much larger for the central reserve banks than for the country banks serving the suburban and agricultural communities. Secondly, the relative significance of changes in reserve policy is greater than changes in deposit flows or changes in loans outstanding in determining changes in the RPR. Thirdly, banks which primarily serve nonfarm and nonsuburban depositors experience the greatest decline in their reserve positions during periods of monetary restraint. Thus, the impact of monetary restraint will be concentrated in banks located in major commercial centers. This will affect loans by reducing the availability of credit and raising the cost.[23] Finally, he concluded that borrowers outside of major commercial centers probably experienced little or no change in credit availability and/or terms of credit during the changes in monetary policy over his study period.[24]

Professor Sam Peltzman of the University of Chicago and the University of California, Los Angeles, has worked in

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[23]A recent study by Donald P. Jacobs, Business Loans Costs and Bank Market Structure: An Empirical Estimate of the Relationship (New York: National Bureau of Economic Research, 1971), also provides some evidence of changing loan cost with bank size.

[24]Lawrence, "Bank Location," pp. 528-29

estimating the impact of bank structure on the transmission of monetary policy.[25] In his analysis of bank structure he developed three major classes of banks. One class was twelve major money market banks located in New York City, Chicago, and California. The average size of these twelve banks was $882.2 million. A second class was large bank states (twenty-four states) with an average bank size of $31.1 million. Recognizing the importance of branch banking, he developed two subclasses of limited branching and statewide branching for this large bank states category. The third class of banks was small bank states (twenty-four states) having an average bank size of $13.6 million. The subcategories in this class were unit banking and limited branching.[26]

In examining the differently structured banking markets in the United States, Professor Peltzman's concern was upon the differences in response to monetary policy. He hypothesized that the existing banking structure created an incentive for slower response by smaller banks to reserve changes. He reasoned that smaller banks could not attain portfolio size economies in dealing in the money market and that, rather than risk the high cost of an active portfolio trading

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[25]Sam Peltzman, "The Banking Structure and the Transmission of Monetary Policy," The Journal of Finance, Vol. XXIV, No. 3 (June, 1969), pp. 387-408.

[26]Ibid., pp. 394-95.

policy, they would delay response to a reserve policy change in order to obtain more information about its permanence.[27]

To test his hypothesis, Professor Peltzman used quarterly call report data from 1950 through 1962 for his classes and subclasses of banks. He developed a series of regression estimates of changes in demand deposits in response to changes in monetary policy. His results provided a greater statistical explanation for the major money market banks than for the large bank states and the small bank states. This explanation was also higher for the large bank states than for the small bank states. For the non-money market banks subclasses, the greater the degree of branching freedom, the greater the degree of demand deposit response to changes in monetary policy.[28]

Portfolio Models

The response of banks to changing market conditions has been the primary concern of the bank portfolio models which

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[27]Paul S. Nadler offered the same general conclusion that small banks do not have the resources or staff to be able to implement shifts to more aggressive lending policies when the Federal Reserve System adopts an easing monetary policy. He suggested that small banks will tend to maintain a rather stable lending policy over the business cycle which does not respond to changes in monetary policy. Paul S. Nadler, "The Banking Structure and Credit Control," Banking, Vol. LX (May, 1968), p. 54.

[28]Peltzman, "Banking Structure," p. 400.

have been developed in the literature. These models do not differentiate between banks of different sizes or classes; however, the general responses described has been assumed in the models used in the next chapter. The models discussed in this section are representative of the work in this area and certainly are not a complete discussion of all the work done in developing portfolio models.

The first portfolio model was developed by F. Y. Edgeworth as an application of probability theory in 1888.[29] He used a probability situation to arrive at reserves given the possibility of random deposit withdrawals. This model allowed the banker the following investment alternatives and respective returns: securities (5 percent), call loans (2 percent), and reserves (0 percent). Edgeworth assumed that the optimal asset portfolio would be one that would yield the maximum interest income subject to the withdrawal demands of depositors. This assumption is employed in almost all portfolio models.

One of the first models developed in the 1960's was used to explain bank choice between reserve and nonreserve assets. Recognizing the problem of uncertain deposit flows, Daniel Orr and W. C. Mellon developed this model as a corollary to

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[29] F. Y. Edgeworth, "The Mathematical Theory of Banking," Journal of the Royal Statistical Society, Vol. LI (1888), pp. 113-27.

their explanation of reserve losses and credit expansion.[30] The model explains why banks might have a profit-maximizing optimal balance sheet which would include some positive volume of reserves exceeding the legal reserve requirements. This positive level of reserves above legal reserves is observed for country banks in this dissertation.

George R. Morrison, in his model of 1966, was also concerned with those factors which influence bank funds allocation between reserve and non-reserve assets.[31] He assumed no legal reserve requirement, yet was able to show that banks would hold reserves that they perceived as adequate to meet withdrawal demand requirements. In this model, bank decisions are made with reference to a single relatively short time period with the objective of minimizing losses or maximizing profits. The opportunity costs of reserve balances are recognized as well as the penalty costs, in terms of lost depositor confidence, of reserve deficiencies.

The models in Chapter III are closely aligned with the model developed by Mr. Richard Porter in 1961.[32] Mr. Porter

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[30]Daniel Orr and W. C. Mellon, "Stochastic Reserve Losses and Expansion of Bank Credit," American Economic Review, Vol. LI (September, 1961), pp. 614-23.

[31]George R. Morrison, Liquidity Preferences of Commercial Banks (Chicago: University of Chicago Press, 1966).

[32]Richard C. Porter, "A Model of Bank Portfolio Selection," Yale Economic Essays (Fall, 1961), pp. 323-59.

made five basic assumptions in his model, two of which are employed in the following chapter. These two are as follows: (1) at withdrawal peaks the bank first uses reserves, second uses securities, and then borrows reserves using its loan portfolio as collateral to meet withdrawal demands, and (2) bank actions will be designed to make maximum additions to net worth. The other three assumptions are that asset classes include only reserves, loans, and securities; that demand deposits are the only source of funds for the bank; and that balance sheet decisions hold only for a single-time period. In an appendix to the article, time deposits are also introduced to the model. Of particular significance in this model is the recognition of the place of securities as secondary reserves, even though they do not earn the returns available on loans and are not legally acceptable as reserves.

The suggestion that for each bank there exists a special class of customers where the failure to grant a loan may in itself increase the level of aggregate risk is unique to the model of Edward J. Kane and Burton G. Malkiel.[33] They suggested that the risk of refusal to grant a loan to such customers may exceed the credit risk and reduce long-run profits as such classes of customers may leave the bank as depositors

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[33]Edward J. Kane and Burton G. Malkiel, "Bank Portfolio Allocation, Deposit Variability, and the Availability Doctrine," The Quarterly Journal of Economics, Vol. LXXXIX, No. 1 (February, 1965), pp. 113-34.

if they are denied credit. Deposit variability as a factor increasing the level of risk has also been included in this profit-maximizing, risk-minimizing model. Because of the risk of alienation of this special class of customers, it has been suggested that the control of loan expansion during economic prosperity may be very difficult for banks, thus reducing the effectiveness of monetary policy. While this special class of customers is not used in the following chapter because of limitations in the data, this model is noted here because of its suggested implications for monetary policy.

Professor John Kareken of the University of Minnesota used a portfolio model as part of his argument that interest should be paid on demand deposits.[34] The central thesis of his paper is that if interest were paid on demand deposits monetary policy would be a more effective and direct method of shifting the supply of money. This is a profit-maximizing, risk-minimizing model which gives careful concern to the question of the desired stock of liabilities (demand deposits)

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[34]John H. Kareken, "Commercial Banks and the Supply of Money: A Market Determined Demand Deposit Rate," Federal Reserve Bulletin, Vol. 53, No. 10 (October, 1967), pp. 1699-1717.

and implies a desired scale of operations.[35] In discussing risk minimization, it is acknowledged that beyond some point a bank will cease to maximize revenues by increasing reserves instead of loans.

Of particular significance for this study is Professor Kareken's discussion of the effect of central bank open market operations on the portfolio of a bank and the expected response of a bank to maintain its balance sheet in an equilibrium position.

A 1971 model by Professor Michael Klein introduced market structure and competitive structure as factors in determining the equilibrium scale of bank operations.[36] This is a preference ordering model whereby the bank prefers the highest rate of return on equity, which is a linear utility function. This desire for the maximum return on equity is assumed in this study as implicit to monetary policy. Professor Klein's model specifies the composition of bank assets and liabilities as well as the rate on loans and the yield

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[35]The questions of economies of scale and related costs in banking are considered in the following empirical studies: Lyle E. Gramley, A Study of Scale Economies in Banking (Kansas City: Federal Reserve Bank of Kansas City, 1962), and Frederick W. Bell and Neil B. Murphy, Costs in Commercial Banking: A Quantitative Analysis of Bank Behavior and Its Relation to Bank Regulation (Boston: Federal Reserve Bank of Boston, 1968).

[36]Michael Klein, "A Theory of the Banking Firm," Journal of Money, Credit and Banking, Vol. III, No. 2, Part 1 (May, 1971), pp. 205-18.

the bank offers on deposits. The actions of the Federal Reserve System are not considered and there are no legal restrictions on asset choice.

The dissertation of Mr. John Alfred Broaddus, Jr., of Indiana University is a unified model of individual operations of banks.[37] This is a very extensive model with the basic assumption that banks act to maximize net revenue flows by managing their average balance sheet positions over time. Reserves are related to various categories of assets and liabilities in this model, recognizing that with different combinations the reserve need may be different. The solution to this model simultaneously determines the optimal stock of each balance sheet account, optimal asset and liability structure, and operating scale. These optimal levels are determined by the intersection of the assumed marginal cost and marginal revenue curves for the individual bank.

Integrated Models of Portfolio Behavior

Within the last eight years two empirical studies relating bank portfolio behavior to monetary policy have been published and a third study is now in progress. This section will consider the work of Mr. Stephen M. Goldfeld first, then

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[37]John Alfred Broaddus, Jr., "A Stochastic Model of Individual Bank Behavior," (unpublished Ph.D. dissertation, Indiana University, May, 1972).

the work of Professor William L. Silber, and finally the current study of Mr. David T. Kresge. Some of this work is presented in table form to illustrate the types of results developed from these studies.

One of the most comprehensive studies of monetary policy as related to commercial banks was done by Mr. Stephen M. Goldfeld in connection with his Ph.D. dissertation at Princeton University.[38] The primary aims of this study were threefold: (1) to relate investment and consumption expenditures directly to financial variables, (2) to examine commercial bank portfolio behavior, and (3) to investigate the impact of monetary policy on both these nonfinancial and financial variables.

Mr. Goldfeld used the postwar period as the beginning point for his study and continued through 1962 as his data period. He constructed a model to estimate both the bank and nonbank variables for this data base. He used a banking system composed of noncountry banks (central reserve city and reserve city banks) and country banks and developed separate equations to estimate values for these classes. Critical to his model is the assumption of profit maximization in a bank's response through its portfolio to a change in monetary policy.

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[38]Stephen M. Goldfeld, Commercial Bank Behavior and Economic Activity (Amsterdam: North Holland Publishing Co., 1966).

The final model consisted of thirty-two equations, five of which estimated the changes in noncountry bank assets and five of which estimated the changes in country bank assets. The basic form of these ten equations included the monetary policy actions of the Federal Reserve System and one period lag bank asset and liability data as the independent variables. A two-stage least squares technique was employed to determine the estimates. Table 2 presents the multiple coefficient of determination (R^2) values determined.

As can be seen from this table, R^2 values are higher for the noncountry bank class than for the country bank class in each asset case with the exception of long-term securities.

In commenting on the equations for the two bank classes, Mr. Goldfeld stated that they "yield instances of (1) a variable being relevant for one class but not another, and (2) a variable whose quantitative significance is quite different for the two classes."[39]

The approach used by Mr. Goldfeld to measure bank responsiveness by R^2 values is similar to the approach used in this study. However, there are two major differences in Mr. Goldfeld's study and this study. The first being that Mr. Goldfeld used but two aggregate classes of banks in his

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[39]Ibid., p. 194.

TABLE 2

MULTIPLE COEFFICIENT OF DETERMINATION VALUES FOR ASSET CLASSES BY NONCOUNTRY AND COUNTRY BANK CLASSES DEVELOPED BY STEPHEN M. GOLDFELD

Asset Class	Multiple Coefficient of Determination
Noncountry Banks	
Excess Reserves	.700
Borrowing	.705
Short-term Securities	.881
Long-term Securities	.821
Municipals	.732
Country Banks	
Excess Reserves	.670
Borrowing	.722
Short-term Securities	.823
Long-term Securities	.838
Municipals	.696

Source: Stephen M. Goldfeld, Commercial Bank Behavior and Economic Activity (Amsterdam: North Holland Publishing Co., 1966), pp. 131-33.

study in contrast to the seventeen classes used in this study. Secondly, Mr. Goldfeld's models were all asset models while this study also includes liability and capital models.

In 1970 Professor William L. Silber published Portfolio Behavior of Financial Institutions.[40] This was an empirical study of the hypothesis that different categories of securities are good substitutes for one another in lender portfolios. This study considered the effects of monetary policy and interest rates on lender actions for not only commercial banks but also five other categories of financial institutions.

Professor Silber specified demand equations for five basic types of investments for each class of financial institution. Statistically he estimated these equations and used the estimated regression coefficients of the interest rates to determine whether the basic types of investments are substitutes or complements for each other. He hypothesized that the lower the degree of substitution, the greater the effectiveness of monetary policy.

In the development of the commercial bank model he assumed that banks will modify their portfolios in response to

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[40]William L. Silber, Portfolio Behavior of Financial Institutions (New York: Holt, Rinehart & Winston, Inc., 1970).

Federal Reserve policy changes in such a manner as to maximize their profits or minimize their losses. He employed the following independent monetary policy variables: the required reserve ratio on demand deposits, the required reserve ratio on time deposits, the discount rate, and the maximum time deposit rate payable. In addition, he used aggregate asset and liability classes, both on a current and on period lag basis, as independent variables as well as the interest rate on United States Treasury bills. For commercial banks, estimating equations for the following were presented: government bonds, the ratio of short-term government bonds to total government bonds, state and local bonds, mortgages, excess reserves, and borrowing for the Federal Reserve Banks. Table 3 presents the first quarter impact coefficient multipliers of the selected monetary policy variables upon these balance sheet accounts.

In analyzing his output results for commercial banks, Professor Silber concluded that there is only a complementary relationship between United States Government bonds and mortgages while the other classes of assets are substitutes. He viewed this as decreasing the effectiveness of monetary policy and suggested possible monetary policy regulations regarding portfolios as a method of reducing substitution and increasing the efficiency of monetary policy.[41] This is

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[41]Ibid., pp. 99-111.

TABLE 3

FIRST QUARTER IMPACT COEFFICIENT MULTIPLIERS OF SELECTED MONETARY POLICY VARIABLES UPON SELECTED BANK BALANCE SHEET ACCOUNTS DEVELOPED BY WILLIAM L. SILBER

Balance Sheet Accounts	Unborrowed Reserves Plus Currency	Reserves Required on D.D.	Reserves Required on T.D.	Discount Rate
Government Bonds	-.974	4.308	1.171	-.568
Short-term Government Bonds: Total Government Bonds	-.082	.173	.098	-.009
State and Local Bonds	.028	.038	-.033	-.017
Mortgages	.263	-.641	-.316	.047
Excess Reserves	.168	-.289	-.202	.006
Borrowing from the Federal Reserve Bank	-.480	.869	.576	-.072

Source: William L. Silber, Portfolio Behavior of Financial Institutions (New York: Holt, Rinehart & Winston, Inc., 1970), p. 105.

somewhat the same suggestion that Mr. Andrew Brimmer has made and which was discussed in a previous section of this chapter, although supported in a different manner.

The models presented in the following chapter also use the four monetary policy variables used by Professor Silber as independent variables in this study. In addition to these four variables, three other monetary policy variables are employed. While Professor Silber's study concerned only commercial banks as a single type of financial institution as related to monetary policy changes, this study is concerned with the differences in response to such policy changes by different classes of commercial banks.

Professor David T. Kresge of New York University is presently engaged in a microeconometric study of bank behavior for the National Bureau of Economic Research.[42] The purpose of this study is to use individual bank data to investigate patterns of bank behavior and to define the differences in behavior by different classes of banks.

The study period has been from June, 1965, through December, 1967. The basic data set used is the semi-annual call reports of all of the approximately 13,500 insured commercial banks in the United States. Banks are organized into three categories. The first is urban versus rural, with an

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[42]David T. Kresge, "A Microeconomic Study of Bank Behavior," a status report for the National Bureau of Economic Research, New York, 1972. (Mimeographed).

urban bank being defined as within a Standard Metropolitan Statistical Area. Next, they are classified as to branching characteristics of the state in which they are located. The three branching classes are unit banking states, moderate branching states (no more than an average of four branches per bank), and extensive branching states (more than an average of four branches per bank). The third classification employed is bank deposit size. The following nine deposit size categories, in millions are used: less than $5, $5 to $10, $10 to $20, $20 to $30, $30 to $50, $50 to $100, $100 to $250, $250 to $500, and over $500. The system is then cross classified into a maximum of fifty-four cells. A representative cell would be urban, moderate branching, fifty to one hundred million in deposits.[43]

Professor Kresge assumed that banks operate under a profit-maximizing criteria, but are also risk averters and will thus maintain security investments as reserves against deposit withdrawals. Because of the ability to command compensating balances from some loan customers at least at some times, he also assumes that banks will act as discriminating monopolists.[44]

To test his theoretical relationships empirically, Professor Kresge used data from three asset categories and

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[43]Ibid., pp. 2-3.

[44]Ibid., pp. 3-6.

three deposit classes. The assets included loans, United States Government securities, and municipal and agency securities. Demand deposits, time deposits, and savings deposits constituted the deposit classes. Demand deposits have been assumed to be exogenously determined and regression equations have been estimated to explain changes in the levels of the five other balance sheet accounts. The basic relationships are as follows:

$$\Delta L = f(\Delta DD, \Delta TSD, L_{t-1}, \text{constant})$$

$$\Delta GOV = f(\Delta DD, \Delta TSD, \Delta L, GOV_{t-1}, \text{constant})$$

$$\Delta MUAG = f(\Delta DD, \Delta TSD, \Delta L, MUAG_{t-1}, \text{constant})$$

$$\Delta TD = f(\Delta DD, \Delta SD, \Delta L, TD_{t-1}, \text{constant})$$

$$\Delta SD = f(\Delta DD, \Delta TD, SD_{t-1}, \text{constant})$$

where:
L = bank loans
DD = demand deposits
TSD = time and savings deposits
GOV = U. S. Government securities
MUAG = municipal and agency securities
TD = time deposits
SD = savings deposits
t-1 = stock at the end of the previous period
Δ = first differences, change.[45]

The initial results from this research have been exploratory and deal only with a small portion of the banks in the sample. These initial results are for the following five classes of banks: urban banks in unit banking states ($5 to $10 million in deposits), rural banks in unit banking states

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[45]Ibid., pp. 7-9.

($5 to $10 million in deposits), urban banks in moderate branching states ($5 to $10 million in deposits), rural banks in moderate branching states ($5 to $10 million in deposits), and all banks, regardless of location or branching characteristics, with deposits over $500 million. Regression estimates have been developed for each of these five classes of banks for the following three periods: June, 1965-December, 1965; December, 1965-June, 1966; June, 1966-December, 1966. Table 4 which follows illustrates the form of these results for the loan equation for the June, 1965-December, 1965, period. These preliminary results indicate that the more urban the bank, the more extensive branching, and the larger the bank, the greater the coefficients of the independent variables and the coefficient of multiple determination.[46]

While Professor Kresge's study is similar to this study in terms of considering differences in deposit size by classes of banks, the independent variables specified for his models are all bank balance sheet accounts. This is in contrast to the monetary policy variables used as the independent variables in this study. Both Professor Kresge's models and those of this study are first differences models with the same basic source of bank data (the call reports). However, the purposes of these studies are not the same. The purpose of Professor Kresge's study being to investigate

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[46]Ibid., pp. 9-10, Tables 1-5.

TABLE 4

LOAN CHANGE INDEPENDENT VARIABLE COEFFICIENTS AND COEFFICIENTS OF MULTIPLE DETERMINATION FOR BANK CLASSES FOR JUNE, 1965-DECEMBER, 1966 DEVELOPED BY DAVID T. KRESGE

Bank Class	DD	TSD	L_{t-1}	Constant	R^2
Urban, unit banking, $5-$10 million	.4039	.3603	-.0073	.0144	.326
Rural, unit banking, $5-$10 million	.2988	.2670	.0194	.0004	.140
Urban, moderate branching, $5-$10 million	.4274	.5738	.0834	-.0433	.451
Rural, moderate branching, $5-$10 million	.2556	.4382	.0262	-.0093	.213
All banks over $500 million	.5945	.4376	.1788	.1367	.405

Source: David T. Kresge, "A Microeconomic Study of Bank Behavior," a status report for the National Bureau of Economic Research, New York, 1972. (Mimeographed.) Tables 1-5.

patterns of bank behavior and to define differences in these patterns by different classes of banks. While the purpose of this study concerns investigating the response of different classes of banks to changes in monetary policy.

Summary

The intent of this chapter has been to acknowledge the previous work in the area of differential responses by banks to monetary policy. The early works relating to the "free reserves" doctrine of the 1950's began to recognize the possibilities of different responses. The concerns expressed by Mr. Andrew Brimmer have centered around relatively large banks; however, he has pointed out differences among large banks given changes in monetary policy.[47] The general empirical studies cited provide some objective evidence of variance in bank behavior as related to size and location.

The portfolio models referred to do not have direct implications regarding bank size and monetary policy. However, the assumptions employed in these models, particularly that banks are profit-maximizing institutions, are implicit to monetary policy. The integrated models of portfolio behavior and their empirical testing are similar in approach to this

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[47]The November, 1972, change in calculating the reserve requirements for net demand deposits by the Board of Governors of the Federal Reserve System is an indication of the recognition of bank deposit size as an important factor in deposit volatility in addition to bank location.

study. The following chapter describes the research techniques employed and the models used in this study.

Of the works reviewed in this chapter, the integrated bank portfolio models and their empirical testing are most similar to the approach of this study. The studies of Mr. Goldfeld and Professor Silber are similar in that Mr. Goldfeld employed R^2 values as the basic measure of responsiveness, while Professor Silber used some of the same independent variables in his models as used in this study. However, both of these studies did not consider bank size as a possible factor in determining bank behavior. While the present study of Professor Kresge does recognize bank size as important in directing bank actions, the differences in the independent variables adopted for Professor Kresge's study and for this study are significant, however.

CHAPTER III

RESEARCH PROCEDURE

The previous chapter described some of the works relating to differential responses by banks to changes in monetary policy. A discussion of the procedures and techniques employed in this study is the subject of this chapter.

As explanation of the data sources for the dependent variables is the concern of the following section. Included within this section is a discussion of the two basic data sources adopted and the methods used to develop each source. A discussion of the seven independent monetary policy variables and the form of their quantification is considered next. As part of this discussion two tables are presented which provide the mean and standard deviation values for each of the independent variables as applied to the two sets of dependent variables. The statistical procedure used and the computer program applied are discussed next. Following this discussion are the various forms of the basic models used. The form of the output is also discussed, and the chapter is concluded with a summary.

Data Sources--Dependent Variables

In considering the responsiveness of banks in the Sixth Federal Reserve District to changes in monetary policy, there are two basic sources of data relating to bank balance sheet accounts for those banks within the district. The first of these is the "Statement of Condition of Sixth District Member Banks" released by the Research Department of the Federal Reserve Bank of Atlanta. This statement, which is as of the close of business on the last Wednesday of each month, includes data for member banks only and subdivides these data by reserve city and country banks. The second data source available is the individual "Call Reports of Condition" of all insured commercial banks in the United States. These reports are filed as of the end of June and December of each year with both the Federal Deposit Insurance Corporation and the twelve Federal Reserve Banks. Both the "Statement of Condition of Sixth District Member Banks" and the individual "Call Reports of Condition" were used as basic data sources in this study. A more detailed description of these two sources follows.

"Statement of Condition of Sixth District Member Banks"

The "Statement of Condition of Sixth District Member Banks" provides four basic aggregate accounts which have been employed in this study. These are total loans and

discounts, total investments, total assets, and total deposits.[1] The major limitation of these data is banks entering or leaving the Federal Reserve System and no adjustment being made in these aggregate four basic accounts for such entry or exit. Also to be considered is that non-member banks were not included in these data; thus, any analysis with these data does not consider the actions of a large number of non-member banks.

These four basic aggregate accounts are available for the study period 1962 through 1971 on a monthly basis. Changes in monetary policy actions do not necessarily coincide with the "statement of condition" data reported at the end of each month. For the purposes of this study this monthly reporting of data is preferable to the semi-annual publishing of call report data, however.

"Call Reports of Condition"

During the fall of 1972 the Division of Data Processing of the Board of Governors of the Federal Reserve System made available the first page of the June and December "Call Reports of Condition" for all insured commercial banks in the United States. These data were made available on a magnetic

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[1]These reports are the basic source of data for a chronological reporting of this information in Statistics on Commercial Banks: Sixth District, Selected Data--1940-1969, Federal Reserve Bank of Atlanta (September, 1970), which has been used in this study.

tape file for the June, 1960, call reports through the December, 1971, reports.[2] The Appendix presents the various accounts included in the call report for each bank.

It is possible to trace any of the individual accounts on the call reports for any of the banks on the magnetic tape file over time. Given this possibility, the first step in preparing these data for use was to separate all data relating to banks in the Sixth Federal Reserve District from data relating to those banks in the other eleven districts. Recognizing the data distortions created by banks entering or leaving the industry, the next step was to accept data only on those banks which were operational during the complete ten-year study period and which submitted call reports from June, 1962, through December, 1971. During this ten years there were 1,813 banks in the Sixth District which submitted a call report at least once. However, only 1,250 banks were in operation for this full ten years and thus submitted twenty call reports during this time.

Given these data for these 1,250 banks over the ten-year period, the next step was the subdivision of the banks into the following three classes: member bank-reserve city, member bank-country, and non-member bank. Within these three classes the banks were grouped by the following total deposit

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[2]Updates of the June and December calls for 1972 and 1973 are available from the Federal Reserve System.

size categories (in millions) as of June, 1962, call reports: less than $5, $5 to under $10, $10 to under $25, $25 to under $50, $50 to under $100, $100 to under $250, and $250 and over. Table 5 presents the number of banks within each class and category.

All of the banks in each subclass were next aggregated to provide a basic data set, which had the same format as a series of twenty call reports for an individual bank. This procedure developed a total of twenty-one possible data sets; however, four of these were null as no banks existed within these four classes as of the June, 1962, call report date.[3]

Independent Monetary Policy Variables

The Federal Reserve System has a number of policy variables available to it which may be employed in the implementation of a particular policy. For this particular study seven of these variables were selected and used on a net change basis. No attempt has been made here to consider the appropriateness of these changes, but only to quantify the changes. The remainder of this section of this chapter describes these variables.

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[3] It is usually assumed that reserve city banks are relatively large. The one bank in the reserve city, under five million in deposits set is the Jacksonville National Bank of Jacksonville, Florida. This particular bank was chartered on October 9, 1961, and had been in existence for less than one year as of the June, 1962, call report. Moody's Bank and Finance Manual, 1973) (New York: Moody's Investors Service, Inc., 1973), p. 590.

TABLE 5

COMMERCIAL BANKS IN THE SIXTH FEDERAL RESERVE DISTRICT CLASSIFIED BY FEDERAL RESERVE MEMBERSHIP AND DOLLAR DEPOSIT SIZE AS OF JUNE, 1962

Size of Total Deposits (in millions of dollars)	Federal Reserve Member		Non-Member	Total
	Reserve City	Country		
Under 5	1	111	623	735
5 to Under 10	0	96	143	239
10 to Under 25	1	103	80	184
25 to Under 50	1	34	9	44
50 to Under 100	2	17	4	23
100 to Under 250	9	10	0	19
250 and Over	6	0	0	6
Total	20	371	859	1250

Source: Developed from the Federal Reserve magnetic tape file of the "Call Reports of Condition," 1973.

System Open Market Operations

The open market operations of the Federal Reserve System include the purchase and sale of certain money market instruments for the system's account. The instruments included in this account are Treasury Bills, other United States Government securities with maturities over one year, Federal agency obligations, and bankers' acceptances. Transactions in this account are predominantly in Treasury Bills and include both outright purchases and sales as well as repurchase agreement transaction in all of the instruments. These data were available on a monthly basis, and the net change in this account was employed as the independent variable for system open market operations for this study.[4]

Reserve Requirements--Demand Deposits

Reserve requirements on net demand deposits were changed twice during the period from January, 1962, through December,

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[4]Transactions of the system open market account are published each month in the Federal Reserve Bulletin, beginning with the August, 1964, issue. The data used in this study are taken from the individual Annual Report of the Board of Governors of the Federal Reserve System: 1962, 49th' Annual Report, p. 152; 1963, 50th Annual Report, p. 220; 1964, 51st Annual Report, p. 228; 1965, 52nd Annual Report, p. 262; 1966, 53rd Annual Report, p. 334; 1967, 54th Annual Report, p. 365; 1968, 55th Annual Report, p. 372; 1969, 56th Annual Report, p. 334; 1970, 57th Annual Report, p. 272; 1971, 58th Annual Report, p. 250 (Washington, D. C.: Board of Governors of the Federal Reserve System).

1971.[5] While different requirements were set for reserve city and country banks, the two changes which took place each affected both classes of banks equally. The reserve requirements for net demand deposits as of January, 1962, were 16.5 percent and 12.0 percent for reserve city and country banks, respectively. During January, 1968, each of these requirements was increased by one-half of one percent. A similar increase of one-half of one percent took place on April 17, 1969.[6] These one-half of one percent increases were employed here as the independent variable for the net change in the reserve requirements for net demand deposits.

Reserve Requirements--
Time and Savings Deposits

Prior to July, 1966, the Federal Reserve System did not differentiate between time and savings deposits in terms of the required reserve. Since July, 1966, a three-tiered system of requirements has existed which includes savings deposits, time deposits under five million dollars, and time deposits over five million dollars.[7] However, the system has

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[5]Net demand deposits are defined by the system to be gross demand deposits minus cash items in the process of collection and demand balances due from domestic banks.

[6]"Reserve Requirements of Member Banks," Federal Reserve Bulletin, LVIII (January, 1972), A-10.

[7]Ibid.

maintained identical requirements for savings deposits and time deposits under five million dollars. The net change in this requirement was used as the independent variable for the reserve requirement for time and savings deposits.[8] There were only two changes in this requirement during the study period, with each change being one-half of one percent.

Discount and Advance Rate

The discount and advance rate is the interest rate at which member banks may borrow from the Federal Reserve bank in their district either by discounting eligible paper or an United States Government obligation or other eligible obligations. Most such discounts and advances are made under Sections 13 and 13a of the Federal Reserve Act.[9] This rate, as set by the Federal Reserve Bank of Atlanta, varied from a low of 3 percent to a high of 6 percent from 1962 through 1971, with a total of sixteen changes.[10] The net amount of each

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[8]Traditionally banks outside of major money markets have received a larger proportion of their total time deposits from savings accounts than from other classes of time deposit accounts. The assets and liabilities of larger commercial banks, as reported monthly in the Federal Reserve Bulletin, provide evidence of this.

[9]Advances are also available under Section 10b of the Federal Reserve Act and under the last paragraph of Section 13 of the act. Different rates, generally higher, are effective under these two sections. However, most Federal Reserve Bank lending takes place under Sections 13 and 13a of the act.

[10]"Current Rates" and "Summary of Earlier Changes," Federal Reserve Bulletin, LVIII (January, 1972), A-9.

change was used here as the independent variable for the change in the discount and advance rate for this study.

Margin Requirements

The Board of Governors of the Federal Reserve System sets margin requirements for stock purchases, convertible bond purchases, and short sales. These requirements are established in accordance with Regulations T, U, and G of the Securities Exchange Act of 1934.[11] Regulation U applies only to banks and does not apply to short sales. Additionally, the margin requirements on convertible bonds did not become effective until March 11, 1968. Because of these factors, the net change in the margin requirements on stock purchases under Regulation U was selected as the independent variable for the margin requirement for this study.[12]

Maximum Interest Rates Payable on Savings Deposits

The maximum interest rates payable on savings deposits by commercial banks are established by the Board of

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[11]Regulation T applies to credit extended by brokers and dealers, Regulation U to credit extended by banks, and Regulation G by others than brokers, dealers, and banks. Regulation Q became effective on March 11, 1967. The Board of Governors has maintained the same margin requirements for stock purchases under each of these regulations.

[12]"Margin Requirements," Federal Reserve Bulletin, LVIII (January, 1972), A-10.

Governors under Regulation Q of the Federal Reserve Act. Prior to July 20, 1966, the Board of Governors maintained separate maximum rate classifications for savings deposits of less than twelve months duration and for those of twelve months or more. Since July 20, 1966, this differentiation has ceased. The maximum rate payable employed in this study was the rate payable on savings deposits of less than twelve months from January 1, 1962, through July 19, 1966, and the rate payable on savings deposits from July 20, 1966, through December, 1971. There were but two changes in this rate during this period.[13]

Maximum Interest Rates Payable on Time Deposits

Like the rates payable on savings deposits, the maximum interest rates payable on time deposits are also established under Regulation Q of the Federal Reserve Act. Prior to July 20, 1966, the Board of Governors did not distinguish between single maturity and multiple maturity deposits, in terms of maximum rates payable, nor was there any distinc-

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[13]"Maximum Interest Rates Payable on Time and Savings Deposits," Federal Reserve Bulletin, LVIII (January, 1972), A-11. In the initial results developed in this study it was determined that the R^2 values were higher if the net change values for the maximum interest rates payable on time deposits were lagged two months, than if they were employed as either current variables or lagged at intervals other than two months. Because of this observation, a lag of two months was used with this independent variable.

tion made between rates payable based upon minimal deposits. Because of this change in classification of deposits, the maximum rates payable on time deposits of six months to twelve months was used here for the period from January 1, 1962, through July 19, 1966.[14] The maximum rate payable on single maturity deposits of less than $100,000 for thirty days to one year was adopted for the July 20, 1966, to December 31, 1971, period. There were four changes in this rate over this ten years.[15]

Mean and Dispersion Values for the Independent Variables

The mean and standard deviation values of the independent variables used with the monthly data base grouped by changes in open market operation are presented in Table 6. These data reflect a maximum of twenty-four net change

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[14]As of July 17, 1963, the maximum rates payable on all time deposits except those of thirty to eighty-nine days became 4 percent. From January 1, 1962, until this date these rates were 4 percent for more than one year, 3½ percent for six months to twelve months, and 2½ percent for ninety days to six months.

[15]"Maximum Interest Rates Payable on Time and Savings Deposits," Federal Reserve Bulletin, LVIII (January, 1972), A-11. In the initial results developed in this study it was determined that the R^2 values were higher if the net change values for the maximum interest rates payable on time deposits were lagged two months, than if they were employed as either current variables or lagged at intervals other than two months. Because of this observation, a lag of two months was used with this independent variable.

TABLE 6

MEAN AND STANDARD DEVIATION VALUES FOR THE INDEPENDENT VARIABLES EMPLOYED WITH THE DATA BASE GROUPED BY CHANGES IN SYSTEM OPEN MARKET OPERATIONS 1962-1971

Independent Variables (net change)	Mean Values	Standard Deviation Values
Open Market Operation (millions of dollars)	1,442.331	1,336.037
Reserve Requirements on Demand Deposits (%)	.042	.141
Reserve Requirements on Time and Savings Deposits (%)	-.083	.282
Discount and Advance Rate (%)	.031	.371
Margin Requirements (%)	-1.875	7.914
Maximum Interest Rates Payable on Savings Deposits (%)	.042	.204
Maximum Interest Rates Payable on Time Deposits (%)	.042	.142

Source: Developed as part of the output of the models used in this study.

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Margin Requirements (%)	-1.875	7.914
Maximum Interest Rates Payable on Savings Deposits (%)	.042	.204
Maximum Interest Rates Payable on Time Deposits (%)	.042	.142

Source: Developed as part of the output of the models used in this study.

observations in each of the variables. For the data base developed from the call report tapes, the mean and standard deviation values of the independent variables applied are shown in Table 7. A maximum of nineteen net change observations for each variable are reflected in these data.

Statistical Procedures

The basic purpose of this study was to estimate the responsiveness of classes of commercial banks to changes in monetary policy. Statistically, this concern was with the degree of relatedness of changes in bank balance sheet accounts to monetary policy changes. To define this "degree" relationship, correlation analysis was used to provide an index of how closely each of the dependent variables moved with the independent variables. This section describes the correlation procedures employed.

While correlation analysis is often thought of in conjunction with regression analysis, it has not been the purpose of this study to use a regression model to predict future bank balance sheet accounts given changes in monetary policy variables. However, in developing the correlation analysis, the stepwise regression procedure was used in

TABLE 7

MEAN AND STANDARD DEVIATION VALUES FOR THE INDEPENDENT VARIABLES EMPLOYED WITH THE DATA BASE DEVELOPED FROM THE CALL REPORT TAPES 1962-1971

Independent Variables (net change)	Mean Values	Standard Deviation Values
Open Market Operations (millions of dollars)	1,782.158	889.798
Reserve Requirements on Demand Deposits (%)	.053	.158
Reserve Requirements on Time and Savings Deposits (%)	-.105	.315
Discount and Advance Rate (%)	.079	.425
Margin Requirements (%)	-1.316	9.105
Maximum Interest Rates Payable on Savings Deposits (%)	.079	.187
Maximum Interest Rates Payable on Time Deposits (%)	.053	.229

Source: Developed as part of the output of the models used in this study.

data relating to the independent variables were also available monthly, there were 120 observations for each of these variables. However, in recognizing that a particular monetary policy was often in effect for periods of several months, it was felt that grouping this data by changes in monetary policy was preferable to using 120 observations for both the dependent and independent variables.[18] This grouping of these data by changes in open market operations allowed the number of observations to be reduced from 120 to 24. As the purpose of this study was to measure responsiveness to changes in monetary policy, employing 120 observations would have been placing a significantly greater emphasis on those 96 observations in which there were no policy changes than upon those 24 observations in which there had been policy changes. This grouping of data by policy changes also considerable reduced the number of degrees of freedom in the residual (error term).

Because the length of time a particular open market policy was in effect varied, a "dummy" variable corresponding to the number of months between policy changes was used as an additional independent variable. These "dummy"

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[18]This grouping of monetary policy changes was accomplished by noting the starting date of a change in system open market policy as reported in the Annual Reports of the Board of Governors of the Federal Reserve System. From January, 1962, through December, 1971, there were twenty-four such changes in policy reported.

variables ranged from one month to twelve months with the mean being 6.875 months. The possibility exists that using a "dummy" variable in such a manner might create higher correlations if the number of months between policy changes were highly correlated with another variable. If the majority of the twenty-four policies in effect during this period had continued for the same number of months, this possibility would have been especially great. This was not the case for these data, however, as the highest correlation between the number of months a particular policy was in effect and another independent variable was .113. Additionally, the highest correlation between this "dummy" variable and a dependent variable was .109. The other correlation values between this independent variable and the other variables were less than .100. Because of these relatively low correlations, the effects of employing a "dummy" variable in such a manner were limited. These limitations were noted in the relatively small increases in the R^2 values associated with the acceptance of this variable in the regression equations.

For the data developed from the call report file, the time periods were all equal. In this case the "dummy" variables began with one for the first net change--June,

1962, through December, 1962--and increased in increments of one for all changes thereafter.[19]

The actual mathematical analysis used for the correlation analysis in this study was performed by computer using a stepwise regression program developed for the biomedical programs of the University of California.[20] Within the computer program used it is possible to vary the tolerance value and the F-values (not alpha levels) for inclusion and exclusion. For this study, in order to limit the possibility of omitting an independent variable the F-value for inclusion was set at .01, for deletion at .005, and the tolerance value at .001.

As the data used in this study were time series data with some very definite growth and seasonal trends, it was necessary to make some adjustments to the data to remove at least part of these trends. With the exception of the system open market operations, the Federal Reserve System monetary policy variables were all stated in percentage

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[19]Draper and Smith, Ibid., pp. 134-42, discuss the use of "dummy" variables with time-series data and suggest that they be employed in a manner such as they have been used in this study. Additionally, the models presented in the following section of this chapter are all first differences models. Ronald J. Wonnacott and Thomas Wonnacott, Econometrics (New York: John Wiley and Sons, Inc., 1970), p. 140, suggest the use of first differences in regression models as valuable in limiting possible autocorrelation distortions inherent in time-series data.

[20]W. J. Dixon, ed., Biomedical Computer Programs (Berkeley and Los Angeles, California: University of California Press, 1968), pp. 233-57d.

Models

The nature of the models used in this study are in some ways quite similar to those of Professors Silber, Goldfeld, and Kresge considered in the second chapter. Like the models discussed in the second chapter, all of the models in this study are regression models. They are also first differences models as used by Professor Kresge. Additionally, four of the independent variables in this study are the same ones employed by Professor Silber. The basic purpose of Mr. Goldfeld's models was to determine R^2 values as a measure of responsiveness to monetary policy. The models of this study are used for much the same purpose.

The same basic model was applied throughout this study with two different forms. The first form considered only the net change in the monetary policy variables and a "dummy" variable for time as described previously in this chapter. The second form also included these same variables but additionally considered the effect of the net change in deposits as a source of funds for asset expansion or contraction and the net change in loans and investments as a use of funds relating to deposit growth or loss. These two basic forms were used with both the monthly and semi-annually data sources developed. As there were a number of equations involved, they were numbered with those followed by the subscript "a" being those which include only the monetary

policy and time variables, while those having the subscript "b" include additionally the appropriate net change in the sources or uses of funds. The equations were numbered such that equations 1a,b through 4a,b refer to the monthly data grouped by open market policy changes, while all those numbered above 4a,b refer to the semi-annual data.

The following abbreviations and symbols were used for the independent variables:

ΔOMO = net change in the system open market operations account

ΔRRDD = net change in the reserve requirements for net demand deposits

ΔRRTD = net change in the reserve requirements for time deposits

ΔDISC = net change in the discount and advance rate

ΔREQM = net change in the margin requirements

ΔTDMX = net change in the maximum interest rates payable on time deposits

ΔSDMX = net change in the maximum interest rates payable on savings deposits

TIME = time series "dummy" variable

ΔTDEP = net change in total deposits

ΔINV = net change in total investments

ΔLOANS = net change in total loans.

<u>Equations for the Monthly Data Base Developed From the "Statement of Condition of Sixth District Member Banks"</u>

1a. Net change in total investments = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)

2a.	Net change in total loans	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
3a.	Net change in total assets	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
4a.	Net change in total deposits	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
1b.	Net change in total investments	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔTDEP, TIME)
2b.	Net change in total loans	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔTDEP, TIME)
3b.	Net change in total assets	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔTDEP, TIME)
4b.	Net change in total deposits	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)

Equations for the Semi-annual Data Base Developed From the "Call Reports of Condition"

5a.	Net change in cash[24]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
6a.	Net change in U. S. Treasury Securities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)

[24] Includes cash, sums due from banks, and unposted debits.

7a.	Net change in federal agency obligations[25]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
8a.	Net change in state and municipal bonds[26]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
9a.	Net change in other securities[27]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
10a.	Net change in trading account securities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
11a.	Net change in total investments[28]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
12a.	Net change in federal funds sold[29]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
13a.	Net change in loans[30]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)

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[25]Includes obligations of U. S. Government agencies and corporation.

[26]Includes obligations of states and political subdivisions.

[27]Including corporate stocks.

[28]Includes the sum of U. S. Treasury securities, obligations of U. S. Government agencies and corporations, obligations of States and political subdivisions, other securities, and trading account securities.

[29]Includes federal funds sold and securities purchased under agreements to resell.

[30]Includes all loans except federal funds sold.

14a.	Net change in fixed assets[31]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
15a.	Net change in other assets[32]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
16a.	Net change in total assets	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
17a.	Net change in demand deposits[33]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
18a.	Net change in time and savings deposits[34]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
19a.	Net change in U. S. Government deposits	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
20a.	Net change in deposits of states and political subdivisions	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
21a.	Net change in deposits of foreign governments and official institutions	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)

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[31]Includes all bank premises, furniture and fixtures, other assets representing bank premises, and real estate owned other than bank premises.

[32]Includes investments in subsidiaries not consolidated, customer's liabilities to the bank on acceptances outstanding, and all other assets not otherwise classified.

[33]Includes demand deposits of individuals, partnerships, and corporations.

[34]Includes time and savings deposits of individuals, partnerships, and corporations.

22a.	Net change in deposits of commercial banks	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
23a.	Net change in certified and officers' checks	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
24a.	Net change in total deposits	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
25a.	Net change in federal funds purchased[35]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
26a.	Net change in other liabilities[36]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
27a.	Net change in total liabilities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
28a.	Net change in minority interest in consolidated subsidiaries	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
29a.	Net change in reserves on loans[37]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
30a.	Net change in reserves on securities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)

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[35]Includes federal funds purchased and securities sold under agreements to repurchase.

[36]Includes liabilities for borrowed money, mortgage indebtedness, outstanding acceptances executed by or for the account of the bank, and all other liabilities not otherwise classified.

[37]Includes reserves for bad debt losses on loans and any other reserves on loans.

31a.	Net change in total capital accounts[38]	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
32a.	Net change in total liabilities, reserves, and capital accounts	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, TIME)
5b.	Net change in cash	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)
6b.	Net change in U. S. Treasury securities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)
7b.	Net change in federal agency obligations	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)
8b.	Net change in state and municipal bonds	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)
9b.	Net change in other securities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)
10b.	Net change in trading account securities	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)
11b.	Net change in total investments	= f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)

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[38] Includes capital notes and debentures, preferred stock, common stock, surplus, undivided profits, reserves for contingencies, and other capital accounts.

12b. Net change in federal funds sold = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)

13b. Net change in loans = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)

14b. Net change in fixed assets = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔTDEP, TIME)

15b. Net change in other assets = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔTDEP, TIME)

16b. Net change in total assets = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC,ΔREQM, ΔTDMX, ΔSDMX, ΔTDEP, TIME)

17b. Net change in demand deposits = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)

18b. Net change in time and savings deposits = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔINV, ΔLOANS, TIME)

19b. Net change in U. S. Government deposits = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)

20b. Net change in deposits of states and political subdivisions = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔINV, ΔLOANS, TIME)

21b. Net change in deposits of foreign governments and official institutions = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔINV, ΔLOANS, TIME)

22b.	Net change in deposits of commercial banks	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔINV, ΔLOANS, TIME)
23b.	Net change in certified and officers' checks	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔINV, ΔLOANS, TIME)
24b.	Net change in total deposits	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔTDMX, ΔSDMX, ΔINV, ΔLOANS, TIME)
25b.	Net change in federal funds purchased	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)
26b.	Net change in other liabilities	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)
27b.	Net change in total liabilities	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)
28b.	Net change in minority interest in consolidated subsidiaries	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)
29b.	Net change in reserves on loans	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)
30b.	Net change in reserves on securities	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)
31b.	Net change in total capital accounts	=	f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)

32b. Net change in total liabilities, reserves, and capital accounts = f(ΔOMO, ΔRRDD, ΔRRTD, ΔDISC, ΔREQM, ΔSDMX, ΔTDMX, ΔINV, ΔLOANS, TIME)

Form of the Output

The computer program employed with the models presented in the previous section provided an output for each step in the stepwise regression routine which included a multiple R value, a standard error of the estimate, an analysis of variance table. Additionally the program provided for the variables in the equation, their regression coefficients, their standard error of the estimate values and a F-value to remove the variable from the equation; and for those variables not in the equation--their partial correlation coefficient, their tolerance level, and a F-value to be entered into the equation. The output for the last step in the stepwise procedure thus provided the complete regression equation and the related measures of significance for this equation. Additionally, the routine provided for each separate application of data to each equation a covariance matrix, a correlation matrix, a table of means and standard deviations,[39] a list of residuals for each case, a plot of residuals versus the independent variables, and a summary

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[39]This was the basic data source for Tables 6 and 7.

table including the order in which the variables entered the equation, their multiple R and R^2 values, the increase in R^2 attributable to the addition of each variable, and the F-value required to remove each variable from the equation.

The data grouped by open market policy changes were substituted into equations 1a through 4a and 1b through 4b for both reserve city banks and country banks as two distinct classes of data. This procedure generated sixteen separate sets of output--eight for each class of banks. For equations 5a through 32a and 5b through 32b there were seventeen separate classes of banks as referred to in Table 5. The application of these seventeen separate sets of data to equations 5a through 32a provided 476 separate sets of output and a similar number for equations 5b through 32b.[40] Thus there were a possible 968 separate sets of output from the application of the various sets of data to the models employed.

Some of this output was not significant when tested by the F-ratio generated at a .01 level. This nonsignificance is noted in the following chapters, while concern is

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[40]However, some applications of equations 5a,b through 32a,b were null as not all classes of banks had accounts in all of the account categories employed in these equations. Several classes of banks did not maintain trading account securities operations (equations 10a,b) and/or did not have deposits of foreign governments and official institutions (equations 21a,b) and/or did not maintain minority interests in consolidated subsididiaries (equations 28a,b).

devoted to analyzing those results which were significant. A summary of the results generated are presented in table form in the following chapters. These tables provide the R^2 values generated as the basic measure of correlation employed, the F-values as a measure of significance, and the number of variables which entered into the equations as an indication of the applicability of a particular model to a particular set of dependent data. However, it should be remembered that the F-value for the inclusion of a variable within the models was .01 and thus the discriminatory effect of testing the individual variables at this value was limited. While the variables did enter the models through a stepwise search procedure, most of the applications did behave much like a multiple regression procedure where all variables were included.

In considering the output of the various models it must be remembered that the independent variables might be correlated among themselves. A high degree of this type of correlation, often referred to as multicollinearity, between two or more independent variables would make it quite difficult to distinguish between the separate effects of these variables. This multicollinearity problem would be of particular significance if the purpose of this study were to consider the relative importance of each of the individual monetary policy variables in the regression equations. In such a case, the estimates of the individual regression

coefficients might be very imprecise. However, as the concern of this study is with the differences in responsiveness of various classes of banks to all changes in monetary policy during a given time period and is somewhat subjective, this problem is not as acute.[41]

Summary

The purpose of this chapter was to describe the research procedures and techniques used in this study. The two basic sources of the dependent data were described in the first section, and an explanation of how the basic data sets were developed was given. Included in this discussion was some consideration of the limitations of both of these basic sources. The seven monetary policy variables were defined and their quantification as independent variables in this study explained. The stepwise regression procedure with its related correlation analysis as adopted for this study was presented. Included within this discussion of statistical procedure was an explanation of the adjustments used to reduce possible distortions caused by all of the data being

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[41]The problems of multicollinearity are discussed by Ronald J. Wonnacott and Thomas H. Wonnacott, Econometrics (New York: John Wiley and Sons, Inc., 1970), pp. 60-61; by Charles R. Frank, Jr., Statistics and Econometrics (New York: Holt, Rinehart and Winston, Inc., 1971), pp. 295-296; and by Jan Kmenta, Elements of Econometrics (New York: The Macmillan Company, 1971), pp. 380-391.

time-series in nature. The models used were of two basic forms. The first form included only monetary policy variables while the second introduced the effect of a net change in either sources or uses of funds as additional independent variables. The forms of the output available and the output presented in the following chapters concluded this discussion of research procedure.

The following chapter is devoted to the analysis of the responsiveness of the asset accounts of the banks in this study to changes in monetary policy as reflected in the results of the applications of the models. The results from equations 1a through 3a and 1b through 3b, for the data base grouped by open market operations for reserve city banks and country banks, are discussed first. This is followed by an analysis of the seventeen classes of banks, grouped by deposit size and Federal Reserve System membership class or non-membership, for equations 5a,b through 16a,b. The responsiveness of the liability accounts, equations 4a,b and 17a,b through 27a,b, is the subject of Chapter V. Chapter VI concludes the analysis of the results of the application of the data to the models by the consideration of equations 28a,b through 32a,b.

CHAPTER IV

ANALYSIS OF ASSET RESPONSIVENESS

The models presented in the previous chapter include asset, liability, and capital accounts. In analyzing the output of these models, a traditional accounting subdivision is used. This chapter considers the output for those models which relate to the various asset accounts (equations 1a,b through 3a,b and 5a,b through 16a,b) while subsequent chapters deal with the liability and capital accounts.

As was described in the previous chapter, the output from each regression application was quite large. Because there were 968 such applications, tables are used in this chapter and the following chapters to summarize this output. Of the 968 applications in this study, 420 apply to the asset models and the results of these are the subject of this chapter.

These results are summarized in table form and are discussed comparatively by bank classification. Within this discussion primary attention is given to the multiple coefficient of determination values (R^2) generated. The F-ratios computed are used to determine the statistical significance or nonsignificance of the results of each

application.[1] If the F-ratio of an application exceeded the critical F-value at the .01 level, the results of that particular application were considered unacceptable for the purpose of evaluating the hypotheses and are thus referred to as unacceptable throughout this chapter and the remainder of this study. The .01 level was used throughout this study to evaluate the F-ratios and all references to the acceptability or unacceptability of particular results are based upon the evaluation of these ratios at this level.[2] Also shown in the tables is the number of variables which entered into the regression equations at the last step through the

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[1]The use of the F-test in determining significance or nonsignificance is discussed by John C. G. Boot and Edwin B. Cox, Statistical Analysis for Managerial Decisions (New York: McGraw-Hill Book Company, 1970), pp. 308-10; by N. R. Draper and H. Smith, Applied Regression Analysis (New York: John Wiley and Sons, Inc., 1966), pp. 24-26; by Lawrence L. Lapin, Statistics for Modern Business Decisions (New York: Harcourt, Brace, Jovanovich, Inc., 1973), pp. 358-64; and by Ronald J. Wonnacott and Thomas H. Wonnacott, Econometrics (New York: John Wiley and Sons, Inc., 1970), pp. 116-19. The procedures and techniques explained by these authors were employed in this study.

[2]The tables summarizing the results of the various applications do not include the number of degrees of freedom associated with the respective F-ratios. Although not presented in the tables, degrees of freedom were employed in determining the critical F-value for each application. As noted in Chapter III, there were 24 observations for models 1a,b through 4a,b (Table 8) and 19 observations for models 5a,b through 32a,b (tables 9 through 64). Given this number of observations and the number of variables within the regression equation for each application (as presented in the tables), the degrees of freedom appropriate for the F-ratio for each application may be easily determined.

stepwise regression procedure. This number of variables within the regression equations is used to indicate the general appropriateness of a model to a particular set of dependent data.[3]

Of the models considered in this chapter the more important ones, as related to potential responsiveness to monetary policy change and size, are the United States Treasury securities models (6a and 6b), the federal agency obligations models (7a and 7b), the total investments models (1a,b and 11a,b), the federal funds sold models (12a and 12b), the total loans models (2a,b and 13a,b), and the total assets models (3a,b and 16a,b). These particular models are emphasized in the discussion of the results of the models in this chapter. The relative importance of the asset accounts represented by these models varied from bank class to bank class and from date to date. However, in terms of percentage of total assets, United States Treasury securities were usually 10 to 15 percent, federal agency obligations, 3 to 6 percent, total investments, 25 to 35 percent, federal funds sold, 3 to 10 percent, and total loans, 40 to 55 percent. The Appendix provides more detailed data regarding these accounts for each of the bank classes.

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[3]As stated in Chapter III, the F-value for the inclusion of a variable within the regression equations was set at .01 and the F-value for deletion at .005. (F-values, not alpha levels, were used.)

As was noted in the previous chapter, those equations subscripted with "a" include the seven monetary policy variables and a "dummy" time-series variable as the independent variables. For the asset accounts considered in this chapter, the net change in total bank deposits as a source of funds was also used as an independent variable in those models with a "b" subscript. The additional explanation provided by the introduction of this variable is discussed in this chapter. The essence of this discussion evolves around the importance of the net change in total deposits, as the basic source of funds for banks, as a partial explanation of the net change in the use of funds.

The results from equations 1a,b through 3a,b are discussed first. These are the models that apply to the asset accounts of reserve city banks and country banks as classes with the data grouped by changes in open market operations.

The output from the data developed from the call report tapes, and grouped by deposit size and by Federal Reserve System membership class and non-membership, are discussed next. These are the results from equations 5a,b through 16a,b for the seventeen classes of banks developed. These equations are grouped into the following six categories for discussion: cash, investments, federal funds sold, loans, fixed and other assets, and total assets.

Following the comparative description of the output of the models by bank classification and deposit size, the results are evaluated relative to the three hypotheses. As presented in the introductory chapter, the hypotheses are as follows: (1) The response of reserve city banks to monetary policy actions has been of a greater relative magnitude than has been the response of country banks to the same actions. (2) Large banks, as defined by deposit size, responded to changes in monetary policy with a greater relative magnitude than did small banks. (3) Banks which are members of the Federal Reserve System have responded to changes in monetary policy actions with a greater relative magnitude than have banks which are not members of the Federal Reserve System. The data used for models 1a,b; 2a,b; and 3a,b are relevant only to the first hypothesis. The support or contradiction of this hypothesis is discussed after the results of these models are described. The data developed from the call reports are applicable to all three hypotheses. The discussion of the models employing the call report data is followed by an evaluation of each of the hypotheses relative to these models. The evaluation of the hypotheses using the data from both data sources first considers the support for the individual hypothesis and concludes with the evidence in contradiction of the particular hypothesis.

This chapter is concluded with a summary of the results of the more important models.

Description of the Output of Models 1a,b Through 3a,b

The summarized results of the output of models 1a,b through 3a,b are presented in Table 8. Total bank investments for reserve city banks and country banks are shown for equations 1a,b. Results from equations 2a and 2b apply to the output for total loans, while the output for total bank assets are shown by equations 3a and 3b.

Net Change in Total Investments

The net change in total investments for reserve city banks and country banks was entered into model 1a as the dependent variable. The R^2 value generated for reserve city banks was .5530 while this same value for country banks was .8005. However, the F-ratio for the country bank results was 4.007, which exceeded the critical F-value. Thus while the R^2 value for the country bank data was higher than the value for reserve city banks, it was not acceptable because of the F-ratio. All eight of the independent variables were entered into the equation for the reserve city bank application while seven variables entered the equation for the country banks.

TABLE 8

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATIONS 1a, 2a, 3a, 4a, 1b, 2b, 3b, AND 4b BY BANK CLASSIFICATION

Bank Class and Equation Number	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
Equation 1a	.5530	2.319	8
Equation 2a	.3279	1.115	7
Equation 3a	.8155	5.626	6
Equation 4a	.5814	2.604	8
Equation 1b	.6424	4.124	7
Equation 2b	.4428	1.490	8
Equation 3b	.9540	15.740	9
Equation 4b	.7739	6.418	8
Country Banks:			
Equation 1a	.8005	4.077	7
Equation 2a	.5692	2.477	8
Equation 3a	.7096	3.125	8
Equation 4a	.6401	4.064	8
Equation 1b	.7491	5.598	8
Equation 2b	.7052	3.721	9
Equation 3b	.9572	63.313	6
Equation 4b	.8174	5.821	10

Source: Developed from the output of the models used in this study.

The net change in total deposits was entered as an additional independent variable for model 1b. Thus there were nine possible independent variables in this model. The results, as shown by Table 8, indicate an increase in the R^2 value for the reserve city banks by the addition of this variable, while this R^2 value declined for the country banks when the net change in total deposits was added. However, the F-ratio for both classes of banks exceeded the critical F-values. The inclusion of this variable did add one variable to the equation for the country banks over model 1a, while only seven variables entered this model for the reserve city banks.

Net Change in Total Loans

Equation 2a results, which apply to the net change in total loans, are also summarized in Table 8. The F-ratios are below the critical F-values for both of the classes of banks and are thus acceptable. The R^2 value for the country banks at .5692 was higher than the value for reserve city banks at .3279. Eight variables entered the equation for country banks while one less entered for reserve city banks. Hence, model 2a provided a higher level of correlation for country banks and was a more applicable model for this class of banks than for reserve city banks.

Model 2a included the addition of the net change in total deposits as an independent variable, also. This increased the R^2 values for both classes of banks with one additional variable entering the equation for both classes. The F-ratio remained below the critical level in both cases. Again the R^2 value was higher for the country banks (.7052) than for the reserve city banks (.4428).

Net Change in Total Assets

Results for model 3a are for the net change in total assets. The higher R^2 value (.8155) was generated for reserve city banks with this model; however, the 5.626 F-ratio exceeded the critical F-value. In contrast, the R^2 value for country banks was .7096 and was acceptable. All eight variables entered into the model for the country banks while only six entered for the reserve city banks.

As was expected, the addition of the net change in total deposits as an independent variable in this net change in total assets model (3b) was the most important variable in the equation. As may be seen from Table 8, the R^2 values were quite high while the F-ratios of 15.740 for the reserve city banks and 63.313 for the country banks far exceeded the critical F-values.

Evaluation of the Hypotheses Relative to Models 1a,b Through 3a,b

The first hypothesis contended that reserve city banks were more responsive to changes in monetary policy than country banks. In considering the results of these six models (1a,b through 3a,b), where the variables were grouped by changes in open market policies, the only acceptable investment model results were for model 1a for the reserve city banks. In contrast, models 2a and 2b were acceptable for both classes of banks and the R^2 values for both of these net change in total loans models were higher for the country banks. The only total asset output which was acceptable was from model 3a for the country banks.

These results support only the first hypothesis of this thesis with the output of model 1a. In contrast to the first hypothesis, the explanation provided by models 2a and 2b was higher for country banks than for reserve city banks, while the results for model 3a were significant for country banks but not for reserve city banks.

Description of the Output of Models 5a,b Through 16a,b

The asset data, grouped by deposit size and Federal Reserve System membership class and non-membership, were substituted into models 5a,b through models 16a,b. Each of these models was used seventeen times because of the

seventeen classes of banks developed from the call reports. Cash was used as the dependent variable for models 5a and 5b. Models 6a,b through 10a,b concern various types of security investments, while models 11a and 11b apply to total investments. Because models 6a,b through 11a,b are closely related, in terms of the substitutability of their dependent variables within a bank's investment portfolio, results from these models are discussed as a group. Models 12a,b used federal funds sold as the dependent variable, while total loans was used as the dependent variable in models 13a,b. Models 14a,b and 15a,b are applications using fixed assets and other assets as the dependent variables, respectively. Models 16a and 16b apply to total assets.

Net Change in Cash[4]

Models 5a and 5b used the net change in cash as the dependent variable. The results from these applications are presented by Tables 9 and 10. Cash has traditionally been the most volatile of bank assets and by its very nature a non-earning asset. In terms of the total net change in assets, this volatility was quite evident within this study.

Model 5a included only the monetary policy variables and the time-series variable as the independent variables.

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[4]Cash was defined to include cash, sums due from banks, and unposted debits.

TABLE 9

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 5a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.2747	.595	7
10 to under 25	.4720	1.117	8
25 to under 50	.7276	3.338	8
50 to under 100	.5381	1.456	8
100 to under 250	.9091	12.507	8
250 and over	.7743	5.390	7
Country Banks:			
under 5	.6249	2.082	8
5 to under 10	.6926	2.819	8
10 to under 25	.7189	3.197	8
25 to under 50	.7954	4.861	8
50 to under 100	.7159	3.150	8
100 to under 250	.5993	1.869	8
Non-member Banks:			
under 5	.8023	5.073	8
5 to under 10	.8170	5.582	8
10 to under 25	.6737	2.581	8
25 to under 50	.6503	2.325	8
50 to under 100	.5534	1.948	7

Source: Developed from the output of the models used in this study.

TABLE 10

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 5b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5065	1.026	9
10 to under 25	.5984	1.863	8
25 to under 50	.7527	3.044	9
50 to under 100	.8576	6.023	9
100 to under 250	.9582	22.906	9
250 and over	.7885	3.729	9
Country Banks:			
under 5	.7074	3.022	8
5 to under 10	.8923	10.361	8
10 to under 25	.8941	8.442	9
25 to under 50	.9446	21.333	8
50 to under 100	.9737	36.964	9
100 to under 250	.9432	16.594	9
Non-member Banks:			
under 5	.9074	12.256	8
5 to under 10	.8871	7.855	9
10 to under 25	.8682	6.589	9
25 to under 50	.9456	17.388	9
50 to under 100	.7844	3.639	9

Source: Developed from the output of the models used in this study.

The highest R^2 value determined was for that class of reserve city banks with deposits between $100 to $250 million. However, the F-ratio for these results exceeded the critical F-value as did these F-ratios for reserve city banks over $250 million in deposits and for both classes of non-member banks under $10 million in deposits. None of the output for the six classes of country banks generated F-ratios beyond the critical F-values.

The highest acceptable multiple coefficient of determination was for country banks with deposits between $25 and $50 million at .7954, while reserve city banks of this same size had the second highest value at .7276. The lowest R^2 value was .2747 for the reserve city banks under $5 million in deposits. However, as was noted previously, there was only one bank in this class. With the sole exception of the largest class of country banks, the R^2 values for all the other classes of country banks exceeded the values for the three acceptable classes of non-member banks and as a class the correlation values were higher for the country banks than the other two classes. With one exception, the acceptable output for the reserve city banks provided higher correlations with increased bank size.

The results from model 5b are shown by Table 10. With the inclusion of the net change in total deposits as an independent variable, the F-ratios of most of the output

exceeded the critical values. Only one class of banks in both the country bank and non-member bank classes had acceptable results; country banks under $5 million and non-member banks between $50 and $100 million in deposits. Of the reserve city bank class, the two from $50 to $250 million did not provide acceptable results. The highest acceptable R^2 value was for the largest class of reserve city banks (.7885), with the largest class of non-member banks being the second highest (.7844). Reserve city banks between $25 and $50 million provided the next highest correlation. The smaller two classes of reserve city banks yielded the lowest acceptable values. Because of the limited amount of acceptable output from model 5b, generalizations relative to the hypotheses would not be well supported.

Net Change in Investments Models

Models 6a,b through 11a,b have as their dependent variables the net change in a class or group of security investments. As these investments are to some degree substitutes for each other in a bank's management of its investment portfolio, they are discussed together in this section.

Net Change in United States Treasury Securities

United States Treasury securities, primarily Treasury bills, are the basic instrument of open market operations used by the Open Market Committee of the Federal Reserve System. As a class of investments, this group offers the highest degree of liquidity available to commercial banks.

Table 11 summarizes the results from model 6a where United States Treasury securities were the dependent variable. Only the one bank in the reserve city class under $5 million in deposits had an unacceptable F-ratio. All of the other results were acceptable. The highest R^2 value was for the smallest class of non-member banks, while the lowest two values were for the moderate size ($25 to $100 million in deposits) reserve city banks. As a group the country banks had higher R^2 values, while there was no discernible relationship between bank size and this correlation value.

When the net change in total deposits was added to model 6a to create model 6b, the output of all three classes of banks under $5 million in deposits was not acceptable as evaluated by the appropriate F-values. All of the other results were significant, however. These results are presented in Table 12 and follow the same general pattern as the results from model 6a. The higher values were again for country banks as a class, and the lower values were for the two moderately sized reserve city bank classes. Both of the

TABLE 11

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 6a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7623	5.039	7
10 to under 25	.6089	2.447	7
25 to under 50	.3827	.775	8
50 to under 100	.1393	.324	6
100 to under 250	.5005	1.252	8
250 and over	.5169	1.337	8
Country Banks:			
under 5	.6350	2.147	8
5 to under 10	.6409	2.231	8
10 to under 25	.4888	1.195	8
25 to under 50	.5661	2.050	7
50 to under 100	.4919	1.521	7
100 to under 250	.6475	2.296	8
Non-member Banks:			
under 5	.6934	2.826	8
5 to under 10	.5284	1.400	8
10 to under 25	.5566	2.511	6
25 to under 50	.4037	.846	8
50 to under 100	.5349	1.807	7

Source: Developed from the output of the models used in this study.

TABLE 12

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 6b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8544	5.868	9
10 to under 25	.6176	2.019	8
25 to under 50	.4009	.669	9
50 to under 100	.1477	.272	7
100 to under 250	.5382	1.165	9
250 and over	.7094	3.052	8
Country Banks:			
under 5	.8184	5.633	8
5 to under 10	.7427	3.607	8
10 to under 25	.6791	2.645	8
25 to under 50	.6622	2.450	8
50 to under 100	.5886	1.431	9
100 to under 250	.8181	4.496	9
Non-member Banks:			
under 5	.8139	5.467	8
5 to under 10	.7379	3.520	8
10 to under 25	.7536	3.058	9
25 to under 50	.5129	1.654	7
50 to under 100	.5467	1.508	8

Source: Developed from the output of the models used in this study.

largest classes of banks in the two Federal Reserve membership groups had the highest R^2 values for their respective groups, while the smaller classes of non-member banks had higher values than the larger classes within this non-member group.

Net Change in Federal Agency Obligations[5]

The results summarized by Table 13 are for model 7a which employed the net change in federal agency obligations as the dependent variable. These obligations represent a source of high liquidity to commercial banks and thus may be substituted for United States Treasury securities as a liquidity source in a bank's investment portfolio. None of the F-ratios for the results from model 7a exceeded the appropriate critical F-values, and thus they were all acceptable. As a class of banks, the reserve banks had the higher R^2 values with the larger banks in this group (excepting the one smallest bank in this class) having the largest values. The highest multiple coefficient of determination was .7416 for the non-member banks between $25 and $50 million in deposits. The second highest value was for the largest size group of country banks, while the banks of

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[5]Federal agency obligations were defined to include the obligations of United States Government agencies and corporations.

TABLE 13

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 7a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7264	3.319	8
10 to under 25	.4128	.879	8
25 to under 50	.5529	1.944	7
50 to under 100	.5385	1.458	8
100 to under 250	.6973	3.620	7
250 and over	.6925	2.815	8
Country Banks:			
under 5	.6659	2.492	8
5 to under 10	.5721	1.671	8
10 to under 25	.7019	3.700	7
25 to under 50	.2636	.716	6
50 to under 100	.4547	1.310	7
100 to under 250	.7298	3.376	8
Non-member Banks:			
under 5	.5650	1.623	8
5 to under 10	.5481	1.516	8
10 to under 25	.5954	1.840	8
25 to under 50	.7416	3.587	8
50 to under 100	.4742	1.127	8

Source: Developed from the output of the models used in this study.

from $25 to $50 million in this class had the lowest R^2 value. Generally, the higher R^2 values were dispersed throughout the various deposit size categories and did not follow any consistent pattern as related to deposit size.

Model 7b (Table 14) included the addition of the net change in total deposits as an independent variable for this federal agency obligations model. The addition of this variable made the results for non-member banks between $25 and $50 million in deposits unacceptable when evaluated by the appropriate F-value. All of the other output yielded acceptable F-ratios.

The pattern of R^2 values presented for model 7b indicates that the larger Federal Reserve member banks had the highest values and that generally member banks had higher values than non-member banks. Again the highest multiple coefficient of determination values were for the reserve city bank class over $250 million (.7462) and the country bank class between $100 and $250 million (.7298).

Net Change in State and Municipal Obligations[6]

Banks may hold state and municipal obligations for several reasons. These obligations are excludable from income for federal income tax purposes; thus they may offer

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[6]State and municipal obligations were defined to include the obligations of states and political subdivisions.

TABLE 14

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 7b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7286	3.355	8
10 to under 25	.4253	.740	9
25 to under 50	.5878	1.426	9
50 to under 100	.5436	1.191	9
100 to under 250	.7206	2.579	9
250 and over	.7462	2.941	9
Country Banks:			
under 5	.6659	2.492	8
5 to under 10	.5743	1.349	9
10 to under 25	.7112	2.463	9
25 to under 50	.4661	.852	9
50 to under 100	.7001	2.334	9
100 to under 250	.7298	3.376	8
Non-member Banks:			
under 5	.6936	2.264	9
5 to under 10	.5833	1.400	9
10 to under 25	.6264	1.676	9
25 to under 50	.8834	7.575	9
50 to under 100	.5321	1.137	9

Source: Developed from the output of the models used in this study.

a certain attractiveness to banks which might benefit from this income exclusion if the yield spread was great enough to offset the lower rates which usually prevail on these tax-exempt obligations. Additionally, different state and municipal obligations provide different levels of credit risk and varying degrees of liquidity, and thus may or may not be good substitutes for other security investments. One other consideration is the possibility that when a bank acquires the obligations of a particular state or municipality, that the bank exhibits some public service obligation to the state or municipality in terms of supporting the market for its securities. All of these factors might have influenced the behavior of the banks in this study in regard to models 8a and 8b.

Model 8a used the net change in state and municipal obligations as the dependent variable. The F-ratios for country banks and non-member banks under $5 million in deposits exceeded the critical levels. All of the other results were acceptable. The highest acceptable R^2 value (.7435) was for the country banks between $5 and $10 million in deposits, with .6851 for reserve city banks over $250 million in deposits being the second highest value. This multiple coefficient of determination value generally increased with bank size for the reserve city bank class, but no such pattern is discernible for the other two

classes. The summarized results from this model are presented by Table 15.

The addition of the net change in total deposits as an independent variable to model 8a created model 8b. The output from this model is summarized by Table 16. The addition of this variable raised the R^2 value for the class of reserve city banks in excess of $250 million in deposits to .9227. However, the F-ratio of 11.939 was far in excess of the critical value. The output of the smallest categories of banks for the country bank and non-member bank classes was also unacceptable as they had been for model 8a. The same general trend of higher R^2 values for the reserve city banks as deposit size increased persisted with this model. Overall, the country banks as a group had higher acceptable R^2 values than did the reserve city banks and the non-member banks.

Net Change in Other Securities[7]

The net change in other securities was the dependent variable for models 9a and 9b. Generally, this is a

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[7]Other securities were defined to include all securities except United States Treasury obligations, obligations of states and political subdivisions, obligations of the United States Government agencies and corporations, and securities that banks maintain in their trading accounts. Included would be any stocks which were eligible to be held.

TABLE 15

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 8a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.3370	.635	8
10 to under 25	.3271	.681	8
25 to under 50	.3668	1.159	6
50 to under 100	.5000	1.571	7
100 to under 250	.5445	1.879	7
250 and over	.6851	2.719	8
Country Banks:			
under 5	.8196	5.680	8
5 to under 10	.7435	3.623	8
10 to under 25	.4629	1.355	7
25 to under 50	.3847	.982	7
50 to under 100	.3949	.816	8
100 to under 250	.5890	1.791	8
Non-member Banks:			
under 5	.8221	9.240	6
5 to under 10	.5272	1.394	8
10 to under 25	.6188	2.029	8
25 to under 50	.5253	1.739	7
50 to under 100	.4047	1.068	7

Source: Developed from the output of the models used in this study.

TABLE 16

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 8b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.3394	.514	9
10 to under 25	.4982	1.241	8
25 to under 50	.4520	1.031	8
50 to under 100	.5315	1.134	9
100 to under 250	.6543	1.893	9
250 and over	.9227	11.939	9
Country Banks:			
under 5	.8614	9.767	7
5 to under 10	.7646	4.059	8
10 to under 25	.5363	1.446	8
25 to under 50	.3898	.639	9
50 to under 100	.6533	1.884	9
100 to under 250	.5937	1.461	9
Non-member Banks:			
under 5	.8230	7.306	7
5 to under 10	.5589	1.584	8
10 to under 25	.6193	1.627	9
25 to under 50	.5387	1.460	8
50 to under 100	.4058	.854	8

Source: Developed from the output of the models used in this study.

relatively small investment account for banks as may be observed from the Appendix.

Table 17 summarizes the results of model 9a. All of the F-ratios for this output were below the critical F-values and thus all of the results were acceptable. Generally, the R^2 values were higher for the non-member banks. However, this might be expected since member banks are more restricted in investments of this type than non-member banks and thus are not afforded the same degree of freedom in varying this account. Of the member bank classes, the results for the reserve city banks were higher than for the country banks. The pattern of multiple coefficient of determination values from this model followed no deposit size trend.

Like model 9a, the output for model 9b was also completely acceptable for the seventeen separate applications. The same pattern that was observed for model 9a continued for model 9b with the higher R^2 values occurring for the non-member banks and no deposit size trends. The only major difference in the results for these two models was that for model 9b the largest class of country banks had the highest R^2 value (.7890), whereas for model 9a the non-member class of banks between $25 and $50 million in deposits had the highest value (.7440). The output for model 9b, presented in Table 18, shows that the net change in total deposits did not enter the equation for this model for this particular

TABLE 17

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 9a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5925	1.818	8
10 to under 25	.3661	.722	8
25 to under 50	.6220	2.586	7
50 to under 100	.6227	2.593	7
100 to under 250	.6483	2.304	8
250 and over	.5675	1.640	8
Country Banks:			
under 5	.4976	1.238	8
5 to under 10	.4601	1.704	6
10 to under 25	.6422	2.243	8
25 to under 50	.4678	1.099	8
50 to under 100	.4262	1.167	7
100 to under 250	.6981	2.891	8
Non-member Banks:			
under 5	.6169	3.220	6
5 to under 10	.6218	2.055	8
10 to under 25	.6124	1.975	8
25 to under 50	.7440	3.632	8
50 to under 100	.6605	2.431	8

Source: Developed from the output of the models used in this study.

TABLE 18

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 9b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions) of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6740	2.068	9
10 to under 25	.3711	.590	9
25 to under 50	.6220	2.586	7
50 to under 100	.6357	2.181	8
100 to under 250	.6490	1.849	9
250 and over	.5675	1.640	8
Country Banks:			
under 5	.5265	1.390	8
5 to under 10	.4601	1.704	6
10 to under 25	.6772	2.098	9
25 to under 50	.5281	1.399	8
50 to under 100	.4525	.826	9
100 to under 250	.7870	4.610	8
Non-member Banks:			
under 5	.6169	3.220	6
5 to under 10	.6701	2.031	9
10 to under 25	.6446	2.267	8
25 to under 50	.7440	3.632	8
50 to under 100	.6602	2.429	8

Source: Developed from the output of the models used in this study.

class of non-member banks because the R^2 value, the F-ratio, and the number of variables entering the equation did not change. This may also be observed for several other classes of banks with these two models. This indicated that, for this particular dependent variable, model 9a (with its inclusion of the net change in total deposits) was not particularly applicable.

Net Change in Trading Account Securities

As may be noted from Tables 19 and 20, nine of the seventeen classes of banks did not maintain trading account securities operations. Normally, larger banks maintain such operations as was the case with the two largest classes of country banks and reserve city banks. In contrast, the smallest class of non-member banks had at least one bank with some volume in trading account securities.

The highest multiple coefficient of determination values were generated for the two largest classes of country banks for model 10a. The R^2 values for the reserve city banks were approximately one-half of those for the country banks. The output for the non-member banks ranged from .1142 for those banks under $5 million in deposits to .6617 ($10 to $25 million in deposits) to .6642 ($50 to $100 million in deposits). All the F-ratios were below the critical levels.

TABLE 19

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 10a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		
100 to under 250	.3640	.899	7
250 and over	.3461	.832	7
Country Banks:			
under 5	no data		
5 to under 10	.0643	.138	6
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	.6971	4.602	6
100 to under 250	.7045	2.980	8
Non-member Banks:			
under 5	.1142	.203	7
5 to under 10	no data		
10 to under 25	.6617	3.911	6
25 to under 50	no data		
50 to under 100	.6643	2.473	8

Source: Developed from the output of the models used in this study.

TABLE 20

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 10b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		
100 to under 250	.3663	.909	7
250 and over	.3486	.669	8
Country Banks:			
under 5	no data		
5 to under 10	.1474	.272	7
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	.7118	3.088	8
100 to under 250	.7814	3.574	9
Non-member Banks:			
under 5	.1334	.154	9
5 to under 10	no data		
10 to under 25	.7281	2.678	9
25 to under 50	no data		
50 to under 100	.7936	3.844	9

Source: Developed from the output of the models used in this study.

The results of model 10b were not markedly different from those of model 10a. Again, all of the F-ratios were acceptable with the same general pattern of R^2 values. Because of the limited number of banks maintaining trading account securities operations and the limited size of the accounts of those maintaining such operations, conclusions relative to models 10a and 10b would be supported only by these limited observations.

Net Change in Total Investments[8]

Model 11a used as the dependent variable the net change in total investments. This dependent variable would approximate the change in the secondary reserve position of commercial banks and as such would be responsive to changes in open market policy actions. Unlike some of the previous models described in this section, the output of model 11a is not simply reflected in the output of model 11b. The results of these two models differ considerably.

The output from the applications of model 11a are summarized in Table 21. As may be seen from this table, the highest R^2 value was for the class of non-member banks

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[8]Total investments were defined to include United States Treasury securities, obligations of United States Government agencies and corporations, obligations of states and political subdivisions, trading account securities, and other securities.

TABLE 21

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 11a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6149	2.509	7
10 to under 25	.5133	2.109	6
25 to under 50	.3440	.659	8
50 to under 100	.3339	.788	7
100 to under 250	.6542	2.365	8
250 and over	.3552	.866	7
Country Banks:			
under 5	.6157	2.518	7
5 to under 10	.4483	1.277	7
10 to under 25	.3298	.615	8
25 to under 50	.3088	.559	8
50 to under 100	.3987	.829	8
100 to under 250	.6599	3.049	7
Non-member Banks:			
under 5	.6173	2.535	7
5 to under 10	.6407	.871	8
10 to under 25	.6652	2.484	8
25 to under 50	.1862	.286	8
50 to under 100	.3457	1.374	5

Source: Developed from the output of the models used in this study.

between $10 and $25 million in deposits. Other relatively high R^2 values appear for the largest and smallest classes of country banks, for the next to the largest and the smallest classes of reserve city banks, and for the two classes of non-member banks under $10 million in deposits. With the exception of the non-member banks, the lower R^2 values did not appear to follow any deposit size trend. All of the F-ratios were acceptable for this model.

The addition of the net change in total deposits to model 11a as an independent variable created model 11b (Table 22). Of the seventeen applications of this model, only that class of country banks under $5 million in deposits produced unacceptable results in terms of the F-ratios. As might be expected, the addition of this particular variable had a substantial influence upon this total investment model. The increase in the R^2 value from .3552 (model 11a) to .7434 (model 11b) for reserve city banks over $250 million is an indication of this relationship. All of the R^2 values for the seventeen applications increased with this additional dependent variable. The amount of this increase was greatest for the larger banks, particularly the Federal Reserve member banks. With this model the highest R^2 value (.8005) was computed for the class of reserve city banks with deposits between $100 and $250 million. The reserve city banks as a class had the highest acceptable R^2 values

TABLE 22

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 11b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7232	2.612	9
10 to under 25	.6351	2.175	8
25 to under 50	.4791	.920	9
50 to under 100	.3360	.633	8
100 to under 250	.8005	4.012	9
250 and over	.7434	2.897	9
Country Banks:			
under 5	.7615	5.016	7
5 to under 10	.5432	1.189	9
10 to under 25	.5334	1.429	8
25 to under 50	.4006	.668	9
50 to under 100	.7211	3.232	8
100 to under 250	.7285	3.355	8
Non-member Banks:			
under 5	.7569	3.113	9
5 to under 10	.6802	2.127	9
10 to under 25	.7926	4.777	8
25 to under 50	.1878	.231	9
50 to under 100	.4286	1.179	7

Source: Developed from the output of the models used in this study.

from these models, with the higher individual values being dispersed throughout all three of the bank classes.

Net Change in Federal Funds Sold[9]

The federal funds market provides banks the opportunity to loan their excess reserves with a minimal degree of risk on a day-to-day basis. As may be noted from the Appendix, the volume of federal funds sold within the Sixth Federal Reserve District increased substantially during the ten-year period of this study. The greatest increase in volume was for the smaller classes of banks which began to enter this market during the 1960's.

Model 12a used the net change in federal funds sold as the dependent variable, with the monetary policy variables and the time-series adjustment variable being the independent variables. The results of this model are summarized in Table 23. The output of all seventeen applications yielded acceptable F-ratios. The highest multiple coefficient of determination value was for the one bank in the under $5 million in deposits reserve city bank class. This might be expected as this was a new bank in a reserve city with relatively easy access to sell its excess reserves. The

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[9]Federal funds sold were defined to include all federal funds sold and securities purchased under agreements to resell.

TABLE 23

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 12a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6706	2.545	8
10 to under 25	.0643	.138	6
25 to under 50	.4692	1.389	7
50 to under 100	.6647	2.478	8
100 to under 250	.3958	.819	8
250 and over	.3026	.682	7
Country Banks:			
under 5	.4845	1.477	7
5 to under 10	.6178	2.540	7
10 to under 25	.3192	.586	8
25 to under 50	.5426	1.483	8
50 to under 100	.4351	.963	8
100 to under 250	.4104	.870	8
Non-member Banks:			
under 5	.5302	1.773	7
5 to under 10	.6390	2.213	8
10 to under 25	.4203	1.139	7
25 to under 50	.3347	.620	8
50 to under 100	.3279	.610	8

Source: Developed from the output of the models used in this study.

second highest R^2 value was also for a class of reserve city banks ($50 to $100 million in deposits), while the lowest R^2 value was for that class of reserve city banks between $10 and $25 million in deposits (.0643). Those banks in the $5 to $10 million in deposits class had the highest R^2 values for both country banks and non-member banks. For all three classes of banks, the two larger size categories had relatively low correlations and F-ratios of less than one.

The addition of the net change in total deposits as an independent variable in this model raised the R^2 for sixteen of the seventeen classes of banks (Table 24). The highest value with this application was for the reserve city banks between $50 and $100 in deposits (.9194); however, the F-ratio of 11.409 far exceeded the critical F-value. The other sixteen applications had acceptable F-ratios. The highest acceptable R^2 remained the one reserve city bank under $5 million in deposits. The next three highest values were for three classes of country banks, while the fifth and sixth highest values were in the non-member bank category. The highest acceptable R^2 values were for the country banks for this model and the lowest values for the reserve city banks. The reserve city banks did follow a limited pattern of lower values as bank size increased.

TABLE 24

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 12b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7930	3.830	9
10 to under 25	.5468	1.508	8
25 to under 50	.6352	2.177	8
50 to under 100	.9194	11.409	9
100 to under 250	.3963	.820	8
250 and over	.3697	.733	8
Country Banks:			
under 5	,4934	.974	9
5 to under 10	.7427	2.887	9
10 to under 25	.3647	.718	8
25 to under 50	.7647	3.251	9
50 to under 100	.5419	1.183	9
100 to under 250	.7605	3.175	9
Non-member Banks:			
under 5	.5302	1.773	7
5 to under 10	.6503	2.324	8
10 to under 25	.4307	1.189	7
25 to under 50	.7145	3.933	7
50 to under 100	.5531	1.547	8

Source: Developed from the output of the models used in this study.

Net Change in Total Loans[10]

Loans are the most important earning asset class for commercial banks.[11] In terms of the total change in bank assets during the six-month periods used in this section of this study, the mean net change in total loans exceeded the mean net change in all other classes of assets, including total investments. In magnitude, this account is the most important of the asset accounts of the study.

Table 25 summarizes the results of model 13a, which used as its dependent variable the net change in total loans. Of the seventeen applications of this model, only the results for the largest class of non-member banks produced an unacceptable F-ratio. The highest acceptable R^2 value was .6446 for the non-member class between $5 to $10 million in deposits, while the lowest R^2 value (.2633) was for the next larger class of non-member banks. Of the three classes of banks, the country banks had higher R^2 values as a group

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[10]Total loans were defined to include all loans except federal funds sold and securities purchased under agreements to resell. The first page of the "Call Report of Condition" does not include any breakdown of bank loans. The loan portfolio of a commercial bank is contained on the second page of the "Call Report of Condition," which is not public information.

[11]The Appendix indicates that, for the banks in this study, as bank size increased the proportion of total bank assets devoted to loans also increased.

TABLE 25

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 13a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6188	2.029	8
10 to under 25	.4016	1.055	7
25 to under 50	.5865	2.836	6
50 to under 100	.4082	1.084	7
100 to under 250	.4690	1.388	7
250 and over	.4736	1.414	7
Country Banks:			
under 5	.4913	1.518	7
5 to under 10	.5166	1.680	7
10 to under 25	.4085	.863	8
25 to under 50	.5015	1.581	7
50 to under 100	.5705	1.661	8
100 to under 250	.6408	2.230	8
Non-member Banks:			
under 5	.5705	1.662	8
5 to under 10	.6446	2.267	8
10 to under 25	.2633	.715	6
25 to under 50	.5000	1.571	7
50 to under 100	.7093	4.880	6

Source: Developed from the output of the models used in this study.

than the other two classes. There was no apparent pattern regarding bank size and the output from this model.

Model 13b included the addition of the net change in total deposits to the independent variables in model 13a. Given a commercial bank's inherent ability to create deposits by granting loans, the increase in the R^2 values for all seventeen bank classes as shown by Table 26 was expected. None of the F-ratios exceeded the critical F-values for this model. The R^2 values from these results exceeded .7128 for the four largest classes of non-member banks with this class of banks having the highest R^2 values. These values did decrease as bank size increased for these four bank size categories within this non-member bank group. All of the R^2 values for the country banks were .6243 or greater, with three of these six having values in excess of .7000.

For model 13b the highest R^2 value for the reserve city bank class was .7867 for the one bank under $5 million in deposits. The lowest R^2 value (.4420) of the seventeen bank classes was for the reserve city banks between $10 and $25 million in deposits. That class of reserve city banks between $100 and $250 million in deposits produced a R^2 of .5784. The remaining three classes of reserve city banks had relatively similar output with R^2 values of .6375, .6484, and .6615.

TABLE 26

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 13b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7867	4.611	8
10 to under 25	.4420	.792	9
25 to under 50	.6375	1.759	9
50 to under 100	.6486	2.305	8
100 to under 250	.5784	1.372	9
250 and over	.6615	1.954	9
Country Banks:			
under 5	.6243	1.661	9
5 to under 10	.7008	2.342	9
10 to under 25	.7795	3.536	9
25 to under 50	.6665	1.999	9
50 to under 100	.7466	4.630	7
100 to under 250	.6493	1.851	9
Non-member Banks:			
under 5	.6075	1.548	9
5 to under 10	.7997	3.992	9
10 to under 25	.7614	3.988	8
25 to under 50	.7137	3.117	8
50 to under 100	.7129	3.902	7

Source: Developed from the output of the models used in this study.

Net Change in Fixed Assets[12]

The acquisition or possible disposition of fixed assets for a commercial bank is most probably determined by the bank's views regarding its competition. Banks may also expand their fixed assets in order to increase bank services offered. Neither of these reasons is directly related to monetary policy and, only in the sense that a bank believes that long-run monetary policy will be expansive (to a degree requiring more fixed assets by the bank to service its customers), might such a monetary policy be considered as influencing a bank's investment in fixed assets. For this study, the mean net change in fixed assets relative to the mean net change in total assets was quite small for most of the bank classes.

Model 14a employed the net change in fixed assets as the dependent variable in the eight independent variable equation. The results of these applications are summarized by Table 27. As may be seen from this table, the R^2 values varied considerably between and among the various classes of banks. No discernible trend relating to bank size existed as there was wide variation in the output. The general applicability of the model also varied a great deal with the

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[12]Fixed assets were defined to include all bank premises, furniture and fixtures, other assets representing bank premises, and real estate owned other than bank premises.

TABLE 27

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 14a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6301	2.130	8
10 to under 25	.7115	3.876	7
25 to under 50	.4862	1.183	8
50 to under 100	.2741	.593	7
100 to under 250	.4607	1.709	6
250 and over	.5493	2.437	6
Country Banks:			
under 5	.1163	.207	7
5 to under 10	.4058	1.366	6
10 to under 25	.7988	4.962	8
25 to under 50	.6766	2.615	8
50 to under 100	.5588	1.583	8
100 to under 250	.4556	1.315	7
Non-member Banks:			
under 5	.6473	2.294	8
5 to under 10	.6656	2.488	8
10 to under 25	.7529	3.809	8
25 to under 50	.4540	1.663	6
50 to under 100	.8599	7.670	8

Source: Developed from the output of the models used in this study.

number of variables in the regression equation being six in four cases, seven in four other cases, and eight in the remaining nine cases. Only the F-ratio of the largest class of non-member banks exceeded the appropriate critical F-value for acceptability.

The addition of the net change in total deposits as an independent variable to model 14a developed model 14b. This variable raised the R^2 values for all but one of the applications (reserve city banks with deposits between $10 and $25 million), indicating some correlation between bank fixed assets and deposit change. As with model 14a, the pattern of R^2 values did not generally relate to bank size or class. Those non-member banks with deposits between $50 and $100 million were the only group with an unacceptable F-ratio as had been the case with the previous model. Table 28 presents the output from model 14b.

Net Change in Other Assets[13]

Like fixed assets, the change in that class of bank assets referred to as "other" assets might not be expected to be closely related to monetary policy changes. With the exception of the bankers' acceptances sometimes purchased by

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[13]Other assets were defined to include investments in subsidiaries not consolidated, customer's liabilities to the bank on acceptances outstanding, and all other assets not otherwise classified.

TABLE 28

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 14b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7082	2.427	9
10 to under 25	.7115	3.876	7
25 to under 50	.4976	.990	9
50 to under 100	.3069	.553	8
100 to under 250	.4720	.894	9
250 and over	.5945	1.833	8
Country Banks:			
under 5	.2019	.506	6
5 to under 10	.4621	1.074	8
10 to under 25	.8264	4.760	9
25 to under 50	.7000	2.333	9
50 to under 100	.7356	2.782	9
100 to under 250	.5276	1.391	8
Non-member Banks:			
under 5	.7686	4.152	8
5 to under 10	.6821	2.682	8
10 to under 25	.7535	3.820	8
25 to under 50	.4660	.873	9
50 to under 100	.8648	6.397	9

Source: Developed from the output of the models used in this study.

the Open Market Trading Desk of the Federal Reserve Bank of New York, the remaining assets in this class are not thought of as being influenced by monetary policy. The Appendix indicates that this class of assets constituted only a relatively small and stable portion of total bank assets for the banks in this study.

The dependent variable for model 15a was other assets. The output of the seventeen applications of this model are summarized in Table 29. The highest multiple coefficient of determination value for this application was generated for the largest class of country banks. However, the F-ratio determined made this result unacceptable at the .01 level employed. The R^2 results for the reserve city bank classes were more closely aligned than the results for the other two classes. The five classes of country banks with acceptable results had widely divergent R^2 values, while the non-member banks as a class had higher R^2 values than the other two classes. For all three classes, the larger deposit size categories with acceptable results tended to yield lower correlation values than did most of the smaller deposit size categories.

The results for the addition of the net change in total deposits to the model are shown in Table 30. The F-ratio for the largest class of country banks was not acceptable as was this ratio for the reserve city banks with deposits

TABLE 29

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 15a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5173	1.340	8
10 to under 25	.4892	1.505	7
25 to under 50	.6142	1.990	8
50 to under 100	.5017	2.014	6
100 to under 250	.4413	.987	8
250 and over	.4934	1.217	8
Country Banks:			
under 5	.3520	.679	8
5 to under 10	.6636	2.466	8
10 to under 25	.7210	4.061	7
25 to under 50	.7312	4.274	7
50 to under 100	.3194	.587	8
100 to under 250	.8574	7.516	8
Non-member Banks:			
under 5	.7323	3.419	8
5 to under 10	.6401	2.223	8
10 to under 25	.6484	2.305	8
25 to under 50	.7356	4.371	7
50 to under 100	.5165	1.679	7

Source: Developed from the output of the models used in this study.

TABLE 30

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 15b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5175	1.341	8
10 to under 25	.8731	6.879	9
25 to under 50	.7912	3.790	9
50 to under 100	.5017	2.014	6
100 to under 250	.4564	.840	9
250 and over	.5639	1.616	8
Country Banks:			
under 5	.3520	.679	8
5 to under 10	.7055	2.995	8
10 to under 25	.7422	2.879	9
25 to under 50	.7693	3.335	9
50 to under 100	.6326	2.152	8
100 to under 250	.8827	7.523	9
Non-member Banks:			
under 5	.7922	3.812	9
5 to under 10	.8063	1.859	9
10 to under 25	.7633	3.225	9
25 to under 50	.8178	4.489	9
50 to under 100	.5335	1.144	9

Source: Developed from the output of the models used in this study.

between $10 and $25 million. The impact of this variable was greatest on the larger classes of Federal Reserve member banks with acceptable F-ratios (particularly, country banks between $50 to $100 million in total deposits) in terms of raising the R^2 values. As a class, the non-member banks still maintained higher values for this model than the other two bank classes. Additionally, larger bank size did not mean higher correlations.

Net Change in Total Assets

Total bank assets are primarily composed of loans and investments which a bank has made or acquired. In essence these two asset classes represent the amount of credit that the bank has extended to borrowers. As such, the change in total bank assets, within a given period, is an indication of the change in bank credit during that period. Models 16a and 16b, both used the net change in total bank assets as the dependent variable.

A summary of the results from model 16a is presented by Table 31. All seventeen of the applications of this model were acceptable when evaluated by their respective F-ratios. The one reserve city bank in the smallest deposit size class had the highest R^2 value for all of the applications at .6773. The next larger class in this category had an R^2 value of .5327, with that group of banks with deposits between $25 and $50 million having the lowest R^2 value (.3452) of the reserve city banks. The next two larger

TABLE 31

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 16a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6773	2.624	8
10 to under 25	.5327	1.792	7
25 to under 50	.3452	.828	7
50 to under 100	.6011	1.884	8
100 to under 250	.6182	2.024	8
250 and over	.3909	1.283	6
Country Banks:			
under 5	.5817	1.738	8
5 to under 10	.5767	1.703	8
10 to under 25	.3584	.698	8
25 to under 50	.6457	2.278	8
50 to under 100	.5160	1.333	8
100 to under 250	.5883	1.786	8
Non-member Banks:			
under 5	.7622	4.008	8
5 to under 10	.6120	2.479	7
10 to under 25	.3453	.829	7
25 to under 50	.5801	1.727	8
50 to under 100	.6172	2.533	7

Source: Developed from the output of the models used in this study.

classes of banks had R^2 results of .6011 and .6182, respectively, with the largest class of reserve city banks yielding a value of .3901. Table 31 indicates that the three classes of banks with higher values had all eight of the variables in their regression equations. This was not the case for those three reserve city bank classes with the lower R^2 values.

All of the results for model 16a for the country bank category were acceptable. For six applications within this category, all eight variables were incorporated in the regression equation, implying a general applicability of this model to this particular data class. The highest R^2 value (.6457) was for that class of banks with deposits from $25 to $50 million, while that class of banks immediately smaller had the lowest R^2 value. The remaining four applications yielded quite similar R^2 results. Particularly, the two smallest classes and the largest class had very close R^2 values (.5817, .5767, and .5883, respectively) while their respective F-ratios were 1.738, 1.703, and 1.786.

The acceptable output for the non-member banks category varied from a low R^2 value of .3453 for banks between $10 and $25 million deposits to a high of .7622 for the smallest class of banks in this category. The three remaining deposit size classes, $5 to $10 million, $25 to $50 million, and $50 to $100 million, produced respective values of .6120, .5801, and .6172. This model was not as appropriate for this

category of banks as it was for the Federal Reserve System member categories. Specifically, only one case generated acceptable results in which all eight variables entered the regression equation.

As illustrated by Table 32, the output from model 16b produced quite high F-ratios. All of these ratios exceeded the critical F-values. As deposits provide the vast majority of bank funds, the results of this model, which included the net change in total deposits as one of the independent variables and the net change in total bank assets as the dependent variable, were not unexpected. It may be noted that the larger banks in all of the classes had lower F-ratios, while the reserve city banks had by far the lowest of these ratios and the non-member banks had the highest. While these results were not acceptable, these F-ratios do indicate those classes of banks which came closest to providing acceptable output.

Evaluation of the Hypotheses Relative to Models 5a,b Through 16a,b

The various models discussed in this section of this chapter provided both support and contradiction for the three hypotheses of this study. The first hypothesis, regarding the relative responsiveness of reserve city banks versus country banks, was not as well supported as the other two. The second contention of this study that larger banks

TABLE 32

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 16b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.9877	100.214	8
10 to under 25	.9571	27.875	8
25 to under 50	.9570	22.267	9
50 to under 100	.9903	102.095	9
100 to under 250	.8989	8.889	9
250 and over	.8389	10.418	6
Country Banks:			
under 5	.9971	343.087	9
5 to under 10	.9962	261.638	9
10 to under 25	.9968	310.378	9
25 to under 50	.9942	171.739	9
50 to under 100	.9958	374.385	7
100 to under 250	.9841	61.847	9
Non-member Banks:			
under 5	.9992	1300.438	9
5 to under 10	.9997	1695.688	9
10 to under 25	.9975	391.165	9
25 to under 50	.9986	708.993	9
50 to under 100	.9899	122.529	8

Source: Developed from the output of the models used in this study.

were more responsive to monetary policy change than smaller banks, was contradicted with the results of only a few models as was the third hypothesis, that member banks were more responsive than non-member banks.

Hypothesis One

The best support for the first hypothesis, that reserve city banks are more responsive to monetary policy changes than country banks, was provided by model 7a (net change in federal agency obligations) and by model 12a (net change in federal funds sold). The dependent variables of both of these models may be very responsive to changes in monetary policy. The results from both of these models provided higher correlations for the reserve city banks than the country banks. Additional support for this hypothesis came from the total investments application (model 11b) and the total assets application (model 16a). While the dependent variables for both of these aggregate models would not be as responsive to changes in monetary policy as federal funds sold or federal agency obligations, the support provided by these models was nonetheless important. Two other models also provided results in agreement with the first hypothesis, however, their significance was not as great as that provided by the other models. Both the net changes in cash (model

5b) and other securities (model 9a) would not necessarily be closely directed by changes in monetary policy and thus the importance of their support for this hypothesis is limited.

Contrary to the first hypothesis, both models 6a and 6b (United States Treasury securities) provided higher R^2 values for the country banks than for the reserve city banks. This contradiction was most important because of the potential responsiveness of this class of investments to the open market activities of the Federal Reserve System. The output from the total loans model 13a also contradicted this hypothesis and was important because of the size of the total loans account and its relationship to demand deposits. Additionally, the results of models 5a (cash) and 8a (state and municipal obligations) conflicted with the first hypothesis. These contradictions were not as significant as those of models 6a, 6b, and 13a, however, because of the possibility of these accounts being substantially influenced by non-monetary policy considerations.

Hypothesis Two

That larger banks, as defined by deposit size, have responded with a greater relative magnitude to changes in monetary policy than smaller banks was the basis of the second hypothesis. The results of model 6a supported this hypothesis. The dependent variable in this model was the

net change in United States Government obligations. The output for the two classes of member banks produced higher correlations for the larger banks. Additionally, the F-ratios of the smaller banks made some of their results unacceptable. The same pattern of higher R^2 values persisted for the larger Federal Reserve System member banks with models 7a and 7b, where the net change in federal agency obligations was the dependent variable. Because these models (6b, 7a, and 7b) represent highly liquid money market instruments, which banks may easily acquire or dispose of in response to monetary policy changes, these models are particularly important.

The output for the reserve city banks from models 8a and 8b, using the net change in state and municipal obligations as the dependent variable, provided evidence of increased responsiveness as bank size increased. However, no such pattern existed for the other two classes of banks with these two models. The last of the various investment models (11b) also supported this hypothesis for the two classes of member banks. While the results of these models were not unimportant, because of the limited market for some state and municipal obligations and the aggregate nature of the total investment accounts, it would not be expected that these asset accounts would respond as quickly to monetary policy changes as those asset accounts composed of money market instruments.

The most important contradiction of the second hypothesis was provided by model 12a (federal funds sold). This model produced relatively low correlations for the larger banks in each of the three bank categories. As federal funds sold represent an asset, which may be easily varied in response to monetary conditions, this contradiction was particularly important. The larger non-member banks had lower correlation values than the smaller non-member banks from model 11a (total investments). However, this pattern of contradiction to the second hypothesis did not extend to the two classes of member banks.

Hypothesis Three

The support of the third hypothesis was equally as strong as that for the second hypothesis. That member banks would respond to monetary policy changes with a greater relative magnitude than non-member banks was the basic contention of this hypothesis. Between the two classes of member banks, the country banks provided better support for this hypothesis than the reserve city banks. The country banks produced higher R^2 values than the non-member banks for both models 6a and 6b (United States Treasury securities), thus supporting this hypothesis. Model 13a (total loans) also supported this hypothesis to the extent that the correlation values for the country banks were greater than those of the non-member banks. The member banks, particularly the

larger ones, had higher R^2 values than did the non-member banks from model 11b (net change in total investments). The highest four acceptable R^2 values from the federal funds sold model (12b) were also for member banks. These five models (6a, 6b, 11b, 12b, and 13a) were the more important ones supporting this last hypothesis.

Additional support for this last hypothesis came from models 5a and 5b (cash) and 16a (total assets). The country banks provided the highest R^2 values for model 5a, while the reserve city banks generated the more acceptable results for model 5b. Model 16a supported this hypothesis as the reserve city banks had the highest correlation values and the country banks had only a limited divergence in their respective values, while the non-member banks had lower overall R^2 values and a more widely dispersed pattern of values. The number of variables in the regression equations indicated that this model was more appropriate for the member banks than to the non-member banks.

The most significant results contrary to the third hypothesis were from model 13b (total loans). The non-member banks had higher overall correlation values for this important model. Other contradictions of lesser importance came from model 9a (other securities) and model 15a (other assets).

Summary

Of the various asset models considered in this chapter, some were more appropriate to the problem of measuring the impact of monetary policy change than others. The most appropriate of these were the United States Treasury securities models, the federal agency obligations models, and the federal funds sold models. These models gained their importance because of the ease with which these accounts might be varied in response to changing monetary conditions. Other important models, but of lesser significance for the purposes of this study, were the total investments models, the total loans models, and the total assets models.

Open market operations of the Federal Reserve System are conducted primarily in United States Treasury securities. These instruments represent a highly liquid asset class in a bank's portfolio and may be easily altered to take advantage of changing market conditions. For these very basic reasons, the United States Treasury securities models were important for this study. These models produced higher correlations for the country banks than the reserve city banks in contradiction of the first hypothesis. However, these same results for the country banks provided support for the third hypothesis that member banks were more responsive to monetary policy changes than non-member banks. The applications of these models for the two classes of member banks supported

the second hypothesis by producing higher explanations for the larger banks than for the smaller ones.

Like United States Treasury securities, federal agency obligations are money market instruments. As such, these instruments offer a bank very high liquidity with minimal risk and may be easily altered in response to changing monetary policy. The results from the federal agency obligations models supported the first hypothesis. The second hypothesis, that larger banks were more responsive to monetary policy change than smaller banks, was supported for the member banks. However, the results for the non-member banks were mixed. In this regard, the output from these models neither fully supported nor fully contradicted the last hypothesis.

The federal funds sold models represented the asset class a bank may most easily vary on a daily basis. The results from these models supported the first and last hypotheses and contradicted the second one. This contradiction might partially be explained by smaller banks being more active in the federal funds market as sellers and larger banks being more active as buyers.

The total investments models supported all three of the hypotheses of this study. The only partial exception was for the non-member banks and the second hypothesis. The larger banks in this class did generate lower correlation

values than their smaller counterparts. The other two classes of banks did support this hypothesis with their results.

Loans represent the single largest class of bank assets and are closely related to demand deposits. The results of the various total loans models supported only the last hypothesis. This support was only to the extent that the country banks produced higher correlations than did the non-member banks. However, these models strongly conflicted with the first hypothesis that reserve city banks were more responsive to changing monetary policy than country banks. The results, in terms of deposit size, did not follow a discernible trend with which to support or reject the second hypothesis.

The total assets models also produced varied results relative to the hypotheses. As these accounts represent the total commitment of a bank's resources, they are important. Because of their aggregate nature, portfolio considerations are not applicable, however. The results from the "statement of condition" data did not support the hypothesis that reserve city banks were more responsive to monetary policy changes than country banks. In contrast, the results from the "call report" data did support this hypothesis. Additionally, the last hypothesis was supported by these models. However, the results as related to deposit size did not

provide a definite pattern of support or contradiction for the second hypothesis.

In summary, the second and third hypotheses were better supported by the more appropriate models (United States Treasury securities, federal agency obligations, and federal funds sold) than the first hypothesis. The majority of the support for the second hypothesis being provided by the two classes of member banks. The models with the larger dependent variables (total investments, total loans, and total assets) supported the first and last hypotheses and produced very mixed results relative to the second hypothesis.

The following chapter considers the responsiveness of the change in liability accounts to monetary policy changes. The output for the data grouped by open market operations policy changes are discussed first for models 4a and 4b. The applications of the data grouped by bank class and deposit size are considered for models 17a,b through 27a,b. The approach to the discussion and evaluation of these results follows the same general pattern as this chapter.

CHAPTER V

ANALYSIS OF LIABILITY RESPONSIVENESS

The output of the models discussed in the previous chapter used asset accounts as the dependent variables. In following a traditional accounting subdivision, the models considered in this chapter all employ liability accounts as their dependent variables. As deposits are the major sources of bank liabilities and bank funds, the majority of this chapter concerns the results from the various deposit models.

The data grouped by the changes in open market operations provided only total deposits as a single liability account. These aggregate data were available for reserve city banks and country banks. The results of equations 4a and 4b refer to these data and are discussed first.

The output from the data developed from the call report tapes are discussed next. These data were grouped by Federal Reserve System membership class and non-membership and subdivided by deposit size. The results from equations 17a,b through 27a,b refer to the applications of these data. For discussion, these models are grouped by classes of deposits and other liability accounts.

There were two applications of models 4a and 4b and seventeen applications of models 17a and 17b through 27a and 27b. Thus, there were a total of 378 applications of these liability account models. The results of these applications are summarized by tables following the same format as that in the previous chapter.

The output from the various models is first discussed comparatively by bank classification. Most of this discussion centers upon the multiple coefficient of determination values (R^2) generated as the basic measure of relatedness used in this study. As in the previous chapter, the F-ratios computed are used to determine the statistical significance or nonsignificance of the results of each application at the .01 level. Those results which provided F-ratios in excess of the appropriate critical F-values at the .01 level, were considered unacceptable for the purposes of evaluating the hypotheses and are referred to throughout this chapter as unacceptable. Thus, all references to results as acceptable or unacceptable are in regard to use of these results in evaluating the hypotheses.[1] In addition to the R^2 values and

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[1]The F-test and the appropriate related degrees of freedom for each application were employed in the same manner as in Chapter IV. References to the F-test and degrees of freedom are provided by footnotes 1 and 2 of Chapter IV.

F-ratios presented in the tables, the number of variables within the regression equations is also shown.[2]

As was the case in the previous chapter, those models with the subscript "a" include the net change in the seven monetary policy variables and the "dummy" time-series variable as the independent variables. The net changes in total investments and total loans, as the basic uses of bank funds, were subsequently added as independent variables to these liability account models. Models which include these two net changes in uses of funds accounts, have a "b" subscript. The additional explanation provided by these two variables is discussed in this chapter. The basis of this discussion centers upon the importance of the net change in total investments and total loans, as the two most important uses of bank funds, in explaining the net change in the sources of funds.

After the comparative discussion of the output of the models by bank classification and deposit size, the results are evaluated in terms of the three hypotheses. As presented in the first chapter, these three hypotheses are: (1) The response of reserve city banks to monetary policy actions has been of a greater relative magnitude than has the response of

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[2]As specified in Chapter III, the F-value for the inclusion of a variable within the regression equations was set at .01 and the F-value for deletion at .005. (F-values, not alpha levels, were used.)

country banks to the same actions; (2) Large banks, as defined by deposit size, responded to changes in monetary policy with a greater relative magnitude than did small banks; and (3) Banks which are members of the Federal Reserve System have responded to changes in monetary policy actions with a greater relative magnitude than have banks which are not members of the Federal Reserve System. As only the first hypothesis is relevant to the data grouped by changes in open market operations, the support and/or contradiction of this hypothesis is considered after the discussion of the applications of models 4a and 4b. All three hypotheses are applicable to the data developed from the call reports. The discussion of the results of the models, using this data source, is concluded with each of the three hypotheses being evaluated. This evaluation section considers the three hypotheses in order. First concern is given to those results which support the particular hypothesis and second consideration to the output contrary to the hypothesis.

Of the various models discussed in this chapter the more important ones, in terms of size and potential responsiveness to changes in monetary policy, are the demand deposit models (17a,b), the time and savings deposits models (18a,b), the deposits of commercial banks models (22a,b), the total deposits models (4a,b and 24a,b), the federal funds purchased models (25a,b), and the total liabilities models (27a,b). The relative size of these liability accounts varied from

bank class to bank class and from date to date. Generally demand deposits represented 30 to 50 percent of total deposits and time and savings deposits approximately 35 to 50 percent of total deposits, while the deposits of commercial banks were usually 2 to 5 percent of all deposits. Total deposits most often comprised 85 to 95 percent of total liabilities. Most of the banks in this study were not active in the purchase side of the federal funds market. The larger classes of banks did begin to enter this market as purchasers during the last half of the study period, however. For these larger bank classes, federal funds purchased approximated 2 to 5 percent of total liabilities. More detailed data regarding the size of these accounts for the various classes of banks is presented in the Appendix.

A summary of the more important results concludes this chapter.

Description of the Output of Models 4a and 4b

The results of the output from models 4a and 4b are summarized in Table 8. Total bank deposits for reserve city banks and country banks were used as the dependent variable for both of these models. As these data were only available for these two aggregate classes of banks, the output is applicable just to the first of the three hypotheses of this study. This first hypothesis contended that reserve city

banks are more responsive to changes in monetary policy than are country banks.

Models 4a and 4b both employed the net change in total deposits as their respective dependent variables. The output of model 4a, which excluded the net change in the two uses of funds accounts as independent variables, produced an R^2 value of .6401 for the country banks and .5814 for the reserve city banks. However, the 4.064 F-ratio determined for the country banks exceeded the critical F-value making these results unacceptable. The F-ratio of 2.604 for the reserve city banks was within the acceptable limits. In both of these applications all eight of the possible variables entered the regression equations.

The net changes in total investments and total loans were added to model 4a as independent variables in order to develop model 4b. The addition of these two variables increased the R^2 values for both classes of banks. These additional variables raised the F-ratio of the reserve city banks beyond the acceptable level but this ratio remained unacceptable for the country banks. While these results were unacceptable for both applications, model 4b indicated a greater applicability to the country banks than to the reserve city banks in that all ten of the possible independent variables entered the model for the country banks while only eight entered for the reserve city banks. Also, the increase in the F-ratios with the addition of these two

variables was much less for the country banks than for the reserve city banks.

Evaluation of the Hypotheses Relative to Models 4a and 4b

The first hypothesis, that reserve city banks are more responsive to changes in monetary policy than country banks, was the only one of the three hypotheses applicable to these data. The output from the four applications of the total deposits models support this hypothesis to the extent that the only acceptable results applied to the reserve city banks. The output from the other three applications were unacceptable because of their high-F-ratios and thus may not be used to contradict this hypothesis even though the respective R^2 values were higher for the country banks. Thus, while these results do support the first hypothesis, such support is basically by default.

Description of the Output of Models 17a,b through 27a,b

Models 17a,b through 27a,b were used for the liability accounts developed from the call reports. As there were seventeen separate classes of banks developed from these reports, each of these models was employed seventeen times. Of the eleven different dependent variables used in these models, eight were of some type of deposit account. In discussing the output of these eight deposit accounts the

following deposit ownership subdivision was adopted: private, government, bank, and total.

Models 17a,b and 18a,b refer to those classes of deposits privately owned. The dependent variable of models 17a,b was the net change in demand deposits while the net change in time and savings deposits was used for models 18a,b. The net change in United States Government deposits served as the dependent variable for models 19a,b. The dependent variables for models 20a,b and 21a,b were the net changes in deposits owned by states and local governments and those owned by foreign governments and official institutions, respectively. These three models are discussed in the same section because of their common government ownership. Models 22a,b and 23a,b both used the net change in a deposit account owned by a commercial bank as the dependent variable. The net change in commercial bank deposits was used in models 22a,b and the net change in certified and officers' checks was used with models 23a,b. Total deposits, on a net change basis, were used for the last of the deposit models (24a and 24b).

Models 25a,b referred to the net change in federal funds purchased as the dependent variable. The net change in liabilities other than deposits and federal funds purchased constituted the dependent variable for models 26a,b. The net change in total liabilities (models 27a,b) was the last dependent variable considered in this section.

Public Ownership of Deposits

The majority of bank funds are provided by the deposits of individuals and businesses. It is upon this most important sector of bank funds that monetary policy is primarily directed. The data developed from the call reports provided a subdivision of these deposits into demand deposits and time and savings deposits.[3] Models 17a,b and 18a,b considered these two subdivisions.

Net Change in Demand Deposits[4]

Demand deposits are a very volatile class of bank deposits and included in most definitions of the total supply of money. Much of the discussion of bank responsiveness to monetary policy centers upon this most important class of deposits. The Appendix indicates that, for the banks in this study, demand deposits provided an increasingly greater percentage of total deposits as bank deposit size increased. In evaluating the output from these models, this pattern is quite important.

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[3]The call reports do parenthetically provide the total of all demand deposits and all time and savings deposits. These totals are not subdivided by deposit ownership. However, the call report data made available from the Federal Reserve System on magnetic tape did not include these parenthetical totals.

[4]Demand deposits were defined to include the demand deposits of individuals, partnerships, and corporations.

Model 17a used the net change in demand deposits as the dependent variable. The results of the applications of this model are summarized in Table 33. The classes of banks under $5 million in deposits for both the country banks and the non-member banks produced F-ratios in excess of the acceptable critical F-values. The results of the other fifteen applications all provided acceptable output when evaluated by the appropriate F-value. The largest categories of banks in the two Federal Reserve System membership classes generated the highest acceptable R^2 values for this model. The country banks provided the highest overall R^2 values of the three classes of banks. The reserve city banks produced three relatively high R^2 values, in excess of .7200, and at the same time the three lowest values.

The non-member banks between $5 and $10 million in deposits had the highest R^2 value for this class of banks at .7421. The next two larger deposit size categories in this class produced R^2 values of .5247 and .5241, respectively. Generally, the results for this class of banks were not as high as for the country banks. From the number of variables within the regression equations, this model appeared to be more applicable to the country banks and the non-member banks than to the reserve city banks.

Model 17b included the net changes in total investments and total loans as independent variables for this demand deposit model. The summarized results of this model are

TABLE 33

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 17a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7306	4.261	7
10 to under 25	.1621	.387	6
25 to under 50	.4750	1.131	8
50 to under 100	.3520	.679	8
100 to under 250	.7235	4.111	7
250 and over	.7678	4.133	8
Country Banks:			
under 5	.8018	5.506	8
5 to under 10	.7546	3.844	8
10 to under 25	.6011	1.884	8
25 to under 50	.6103	1.957	8
50 to under 100	.5799	1.725	8
100 to under 250	.7904	4.714	8
Non-member Banks:			
under 5	.8108	5.358	8
5 to under 10	.7421	3.597	8
10 to under 25	.5247	1.380	8
25 to under 50	.5241	1.377	8
50 to under 100	.6682	2.518	8

Source: Developed from the output of the models used in this study.

presented in Table 34. As these two additional uses of funds variables are closely related to demand deposits, the increase in the R^2 values in each of the seventeen applications was not unexpected. The F-ratios of all three of the bank groups under $5 million in deposits were unacceptable. Additionally, these ratios for the country banks between $10 and $25 million in deposits and the non-member banks with deposits from $25 to $50 million were also unacceptable. The highest acceptable R^2 value (.8712) was for the non-member banks with deposits from $5 to $10 million. The F-ratio of 5.413 was only slightly below the critical value for rejection for this application. While there were only three acceptable R^2 for the non-member banks, these acceptable values were higher as a class than the acceptable values for the other two classes of banks.

With this model the reserve city banks with acceptable results did exhibit some pattern of higher correlations as bank size increased. With the exception of those country banks in the $5 to $10 million in deposits group, the remainder of the country banks also followed this trend. As a group the reserve city banks provided more acceptable results from this model, however, the R^2 values for the reserve city banks were lower than for the other two classes.

TABLE 34

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 17b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8601	6.159	9
10 to under 25	.4305	.605	10
25 to under 50	.5574	1.574	8
50 to under 100	.4276	.598	10
100 to under 250	.7790	3.526	9
250 and over	.8349	4.045	10
Country Banks:			
under 5	.8879	7.919	9
5 to under 10	.8499	4.528	10
10 to under 25	.8811	5.927	10
25 to under 50	.7752	3.448	9
50 to under 100	.7896	3.753	9
100 to under 250	.8040	3.281	10
Non-member Banks:			
under 5	.8817	5.965	10
5 to under 10	.8712	5.413	10
10 to under 25	.8541	4.684	10
25 to under 50	.8462	5.503	10
50 to under 100	.7019	1.833	10

Source: Developed from the output of the models used in this study.

Net Change in Time and Savings Deposits[5]

Time and savings deposits represent the more stable of the deposit sources of funds for commercial banks. Time deposits refer to those interest-earning deposits placed with the bank for a specified time period. In contrast, while savings deposits also earn interest, they are not deposited for any specified period. For the banks in this study, it was the smaller classes of banks which received the largest proportion of their total deposits from this source. Traditionally, banks have used these funds for making longer term loans such as those for real estate loans.

The maximum interest rates payable on time and savings deposits are established under Regulation Q of the Federal Reserve Act. As was explained in the third chapter of this study, these maximum interest rates payable were used as independent variables. Consequently, of the sixty-four models used in this study, these two time and savings deposits models (18a and 18b) are more closely related to any of the independent variables than any of the other models.

Model 18a used the net change in time and savings deposits as the dependent variable. All of the seventeen applications of this model produced acceptable results when

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[5]Time and savings deposits were defined to include the time and savings deposits of individuals, partnerships, and corporations.

evaluated by the F-critieria. These results are summarized by Table 35. As a group, the reserve city banks had the lowest R^2 values. However, as the Appendix indicates these banks relied less on time and savings deposits as sources of funds than did the other two classes of banks. With the exception of the two bank classes with deposits from $25 to $100 million, the country banks all had R^2 values in excess of .6300. The smallest class of non-member banks produced the highest multiple coefficient of determination value (.6960), while the largest class of banks in this group had the smallest R^2 value (.4906). While the trend was not without exception, the smaller deposit size banks in all three bank classes did provide the higher correlation values.

Model 18b included the addition of the two uses of funds accounts as independent variables. The addition of these variables raised the F-ratios for the following five deposit size classes beyond acceptable levels: reserve city banks from $100 to $250 million, country banks under $5 million, country banks from $100 to $250 million, non-member banks from $5 to $10 million, and non-member banks from $10 to $25 million. For the remaining twelve acceptable applications, the largest gains in R^2 values were for the larger classes of banks. The largest classes of reserve city banks and non-member banks showed increases from .4310 to .8693 and from .4906 to .8111, respectively. The highest R^2 values (.9104) remained for the smallest class of non-member banks with the

TABLE 35

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 18a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5871	1.777	8
10 to under 25	.4186	.900	8
25 to under 50	.3559	.868	7
50 to under 100	.3396	1.029	6
100 to under 250	.6028	1.897	8
250 and over	.4310	1.190	7
Country Banks:			
under 5	.6476	2.888	7
5 to under 10	.6314	2.142	8
10 to under 25	.6619	2.447	8
25 to under 50	.2622	.444	8
50 to under 100	.4100	1.092	7
100 to under 250	.6866	3.443	7
Non-member Banks:			
under 5	.6960	2.861	8
5 to under 10	.6817	3.366	7
10 to under 25	.5035	1.594	7
25 to under 50	.6482	2.303	8
50 to under 100	.4906	1.204	8

Source: Developed from the output of the models used in this study.

lowest value for the reserve city banks between $50 and $100 million in deposits. For this model the non-member banks showed higher correlation values than the other two classes of banks. Of the Federal Reserve System member banks, the country banks yielded higher values than did the reserve city banks. These results are shown in Table 36.

Government Ownership of Deposits[6]

The commercial bank deposits of the United States Government, often referred to as the tax and loan accounts of the United States Treasury, were used as the dependent variable for models 19a and 19b. Those deposits owned by states and other political subdivisions were used in the models 20a and 20b as the dependent variable. The last class of the government owned deposits reported in the call reports refers to the deposits of foreign governments and official institutions. These deposits were used for models 21a,b. While these three classes of government deposits may not be thought of as being particularly related to monetary policy, the overall results from these six models were quite acceptable when evaluated by the F-criteria used.

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[6]The call reports do not differentiate between demand deposits and time and savings deposits for these three classes of government owned deposits.

TABLE 36

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 18b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8718	5.441	10
10 to under 25	.6348	1.738	9
25 to under 50	.6546	1.516	10
50 to under 100	.3511	.676	8
100 to under 250	.8635	6.326	9
250 and over	.8693	5.322	10
Country Banks:			
under 5	.9379	12.078	10
5 to under 10	.8726	5.481	10
10 to under 25	.8458	4.486	9
25 to under 50	.6858	1.746	10
50 to under 100	.6196	1.303	10
100 to under 250	.8864	6.243	10
Non-member Banks:			
under 5	.9104	3.876	10
5 to under 10	.8872	6.291	10
10 to under 25	.8570	5.994	9
25 to under 50	.7192	2.561	9
50 to under 100	.8111	3.434	10

Source: Developed from the output of the models used in this study.

Net Change in United States
Government Deposits

The deposits of the United States Government within commercial banks represent varying degrees of significance to banks relative to total bank deposit size. As most of these deposits are in the tax and loan accounts of commercial banks, the placement of these deposits is determined not by the United States Treasury but by the individuals or businesses that transact financial matters with the government. Of course the Treasury may significantly alter these balances by the withdrawal of these deposits. During the study period the Treasury followed a policy designed to minimize the effect of such withdrawals by notifying banks of a pending withdrawal up to one week prior to the actual withdrawal.

Model 19a used United States Government deposits as the dependent variable with the seven monetary policy variables and the "dummy" time-series variable employed as the independent variables. The results of the seventeen applications of this model are summarized by Table 37. All of these results provided acceptable F-ratios. The highest R^2 value (.6496) was for the one bank in the reserve city class under $5 million in deposits, with this same size group in the country bank class having the second highest value (.5443). The lowest correlation was for the reserve city banks with deposits from $10 to $25 million. As a class the country banks had higher correlations than the other two classes,

TABLE 37

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 19a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6496	2.317	8
10 to under 25	.3185	.735	7
25 to under 50	.4384	.976	8
50 to under 100	.3867	.788	8
100 to under 250	.4818	1.859	6
250 and over	.5391	1.462	8
Country Banks:			
under 5	.5443	1.493	8
5 to under 10	.4277	1.174	7
10 to under 25	.5323	1.423	8
25 to under 50	.4545	1.309	7
50 to under 100	.4475	1.013	8
100 to under 250	.4511	1.291	7
Non-member Banks:			
under 5	.4310	.947	8
5 to under 10	.3410	.647	8
10 to under 25	.4321	1.196	8
25 to under 50	.4144	.885	8
50 to under 100	.4783	1.441	7

Source: Developed from the output of the models used in this study.

and the non-member banks had the lowest values. No deposit size pattern developed from the results of this model.

The addition of the net changes in total investments and total loans as independent variables in model 19b produced the summarized results shown in Table 38. As with model 19a, all of the F-ratios were acceptable. The highest R^2 value remained for the sole reserve city bank in the under $5 million class. The two largest classes of non-member banks also had relatively high R^2 values. No correlation trend by deposit size was evident from these applications. Both the reserve city banks and the non-member banks had widely diverse R^2 values within their respective classes, while the dispersion of country bank values was less.

Net Change in Deposits of States and Political Subdivisions

The placement of funds of states and other political entities within commercial banks might be determined by convenience and/or might have possible political implications. Regardless of the reasons why a bank might hold such deposits, there is little to suggest that the collection and spending of such funds is influenced by monetary policy. As indicated by the Appendix, these deposits may be a most important source of bank funds. In almost all cases in this study, the deposits of states and political subdivisions constituted the majority of total government owned deposits. Both models 20a

TABLE 38

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 19b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8364	4.091	10
10 to under 25	.6296	1.697	9
25 to under 50	.4839	.938	9
50 to under 100	.4210	.582	10
100 to under 250	.5101	1.041	9
250 and over	.5825	1.116	10
Country Banks:			
under 5	.5454	1.200	9
5 to under 10	.4851	1.177	8
10 to under 25	.5707	1.329	9
25 to under 50	.5007	1.003	9
50 to under 100	.4688	.706	10
100 to under 250	.6633	2.463	8
Non-member Banks:			
under 5	.4808	.926	9
5 to under 10	.3570	.694	8
10 to under 25	.5122	1.050	9
25 to under 50	.7697	3.342	9
50 to under 100	.7115	2.466	9

Source: Developed from the output of the models used in this study.

and 20b used the net change in state and political subdivision deposits as their dependent variables.

Model 20a did not include the two uses of funds accounts. The results of the applications of this model are shown in Table 39. The two highest R^2 values (.8822 for country banks from $25 to $50 million and .8005 for non-member banks from $5 to $10 million) were not acceptable because of their high F-ratios. The other fifteen sets of output were acceptable. Excluding the unacceptable data, the highest correlations were for the single reserve city bank under $5 million in deposits and the lowest correlations in this same class were for the next larger group of banks. The highest R^2 values predominated in the reserve city class while the lowest values were for the non-member banks. Deposit size trends were evident only for the non-member banks with lower values determined for the larger banks.

The addition of the uses of funds variables to model 20a developed model 20b. The F-ratio of the country banks with deposits from $25 to $50 million was beyond the limits of acceptance for this model. The remaining sixteen applications were acceptable. The highest R^2 value was for the non-member banks from $5 to $10 million in deposits. The lowest R^2 value remained for the largest group of non-member banks. This model was less applicable to the reserve city banks than the other two classes of banks in terms of the number of variables in the regression equations. As a class the

TABLE 39

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 20a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7350	3.467	8
10 to under 25	.2900	.642	7
25 to under 50	.5967	1.849	8
50 to under 100	.5086	1.294	8
100 to under 250	.7104	3.066	8
250 and over	.6965	2.869	8
Country Banks:			
under 5	.4749	1.130	8
5 to under 10	.7003	2.921	8
10 to under 25	.6485	2.306	8
25 to under 50	.8822	9.361	8
50 to under 100	.5565	1.569	8
100 to under 250	.7244	3.286	8
Non-member Banks:			
under 5	.7091	3.831	7
5 to under 10	.8005	6.304	7
10 to under 25	.5512	1.930	7
25 to under 50	.6404	2.799	7
50 to under 100	.2347	.383	8

Source: Developed from the output of the models used in this study.

correlation values were highest for the country banks and lowest for the non-member banks. No deposit size trend was discernible. These results are summarized by Table 40.

Net Change in the Deposits of Foreign Governments and Official Institutions

The deposits of foreign governments and official institutions were not of much importance as a source of funds for the banks in the Sixth Federal Reserve District during the period of this study. The Appendix indicates that eight of the seventeen classes of banks in this study had none of these deposits at any time during the ten years of this study. While the remaining nine classes did have some of these deposits, they did not necessarily maintain these deposits over the full ten-year period. The use of these accounts by their depositors are motivated by considerations beyond monetary policy.

Models 21a and 21b employed the net change in this category of deposits as the dependent variable. The output from these two models is summarized in Tables 41 and 42. Only the reserve city banks and larger country banks maintained this class of deposits over the full study period; the other banks with this type of deposits did not. Because of the limitations of these data, conclusions relative to the results of these applications would not be well supported.

TABLE 40

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 20b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8277	3.844	10
10 to under 25	.5475	1.512	8
25 to under 50	.5967	1.849	8
50 to under 100	.5271	1.115	9
100 to under 250	.7677	3.304	9
250 and over	.7276	3.340	8
Country Banks:			
under 5	.5550	1.247	9
5 to under 10	.7553	2.469	10
10 to under 25	.7315	2.180	10
25 to under 50	.8831	7.552	9
50 to under 100	.8207	3.662	10
100 to under 250	.7584	3.139	9
Non-member Banks:			
under 5	.7501	2.402	10
5 to under 10	.8345	5.044	9
10 to under 25	.6593	1.935	9
25 to under 50	.7277	2.673	9
50 to under 100	.2642	.359	9

Source: Developed from the output of the models used in this study.

TABLE 41

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 21a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	.5635	1.614	8
50 to under 100	no data		
100 to under 250	.3080	.699	7
250 and over	.5460	1.503	8
Country Banks:			
under 5	no data		
5 to under 10	.6462	2.870	7
10 to under 25	.0916	.158	7
25 to under 50	.3906	1.007	7
50 to under 100	.3744	.748	8
100 to under 250	no data		
Non-member Banks:			
under 5	.1640	.308	7
5 to under 10	.7308	3.393	8
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		

Source: Developed from the output of the models used in this study.

TABLE 42

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 21b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	.5852	1.129	10
50 to under 100	no data		
100 to under 250	.5506	1.532	8
250 and over	.6798	2.123	9
Country Banks:			
under 5	no data		
5 to under 10	.6978	2.886	8
10 to under 25	.1453	.340	6
25 to under 50	.4173	.716	9
50 to under 100	.4063	.684	9
100 to under 250	no data		
Non-member Banks:			
under 5	.1946	.380	7
5 to under 10	.7373	2.246	10
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		

Source: Developed from the output of the models used in this study.

Bank Ownership of Deposits[7]

Certain bank deposits are created because of the working relationships that banks develop with other banks and in order to assure the negotiability of bank drafts. The call reports provide totals for two of these classes of deposits. The net change in deposits of other commercial banks, often referred to as correspondent deposits, is used as the dependent variables for models 22a and 22b. The net change in certified and officers' checks is the dependent variable for models 23a,b.

Net Change in Commercial
Bank Deposits

Banks, which maintain correspondent relationships with other banks, traditionally hold deposits of their correspondents as a matter of convenience. Individual banks may maintain such relationships with a number of other banks. The size of a bank's deposits with its correspondents will vary from correspondent to correspondent depending upon any agreement between the two banks and/or the volume of transactions between the two. The deposits a bank has placed with its

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[7]The call reports do not differentiate between demand deposits and time and savings deposits for these two classes of bank owned deposits.

TABLE 43

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 22a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.2392	.494	7
10 to under 25	.4682	1.384	7
25 to under 50	.6272	2.103	8
50 to under 100	.4571	1.323	7
100 to under 250	.7852	4.570	8
250 and over	.8188	5.547	8
Country Banks:			
under 5	.7100	3.847	7
5 to under 10	.6565	3.822	6
10 to under 25	.6835	2.700	8
25 to under 50	.7733	4.265	8
50 to under 100	.6993	2.908	8
100 to under 250	.8303	6.115	8
Non-member Banks:			
under 5	.6928	2.819	8
5 to under 10	.6394	2.217	8
10 to under 25	.6215	2.580	7
25 to under 50	.8537	7.296	8
50 to under 100	.7251	3.308	8

Source: Developed from the output of the models used in this study.

correspondents will represent a significant source of bank liquidity and as such are subject to quick withdrawal.[8]

Model 22a used the net change in commercial bank deposits as the dependent variable with the seven monetary policy variables and the time-series variable as the independent variables. The output from this model is summarized in Table 43. The F-ratio results of both of the largest classes of member banks and the class of non-member banks with deposits from $25 to $50 million were unacceptable. The highest acceptable multiple coefficient of determination value was determined for the class of reserve city banks with deposits from $100 to $250 million. The next highest value was for the country banks from $25 to $50 million in deposits. The country banks as a class provided the highest correlation values for this model. While a class of reserve city banks did provide the highest acceptable R^2 value, the reserve city classes of banks also provided the lowest three values. The acceptable output of the non-member banks was higher than that of the reserve city banks and lower than that of the country banks. A discernible correlation pattern by deposit size was not evident from the applications of this model after the unacceptable results were rejected.

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[8]A 1967 study of deposit variability by Hugh Chairnoff, "Deposit Variability: A Banker's Headache," Business Review Federal Reserve Bank of Philadelphia (September, 1967), pp. 9-15, concluded that interbank deposits were the most volatile of all bank deposits.

The net changes in total investments and total loans were included as additional independent variables to model 22a to develop model 22b. The inclusion of these independent variables raised all of the R^2 values from model 22a. The highest R^2 values were .9519 (country banks from $10 to $25 million) and .9485 (non-member banks from $25 to $50 million). The F-ratios for both of these applications were beyond acceptance. The largest classes of reserve city banks and of country banks produced the highest acceptable multiple coefficient of determination values from this model. The single reserve city bank under $5 million in deposits provided the lowest correlations. The reserve city banks did exhibit a trend of higher correlation levels with larger bank size, while this was not the case with the other two classes of banks. The highest R^2 values predominated in the country bank deposit size classes. In terms of the number of variables within the regression equations, this model was more appropriate for the larger classes of banks. (Table 44).

Net Change in Certified and Officers' Checks

The volume of certified and officers' checks, primarily cashiers' checks, issued by a bank is determined by the requests for such instruments from a bank's customers. The basic purpose of such instruments is to assure the

TABLE 44

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 22b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.3489	.842	7
10 to under 25	.6091	1.558	9
25 to under 50	.6282	1.690	9
50 to under 100	.5655	1.302	9
100 to under 250	.7955	3.112	10
250 and over	.8375	4.122	10
Country Banks:			
under 5	.7183	2.550	9
5 to under 10	.8110	3.434	10
10 to under 25	.9519	15.841	10
25 to under 50	.7942	3.860	9
50 to under 100	.7789	3.524	9
100 to under 250	.8540	4.679	10
Non-member Banks:			
under 5	.8239	3.744	10
5 to under 10	.7680	2.648	10
10 to under 25	.7278	2.674	9
25 to under 50	.9485	14.773	10
50 to under 100	.7311	2.175	10

Source: Developed from the output of the models used in this study.

acceptability of a draft. The volume of these deposits increased during this study with the larger classes of banks maintaining a relatively greater volume in such instruments. The Appendix indicates this trend.

Model 23a used the net change in certified and officers' checks as the dependent variable. The non-member banks under $5 million in deposits generated the highest R^2 value from this model, while those banks with deposits from $10 to $25 million in this same class provided the lowest value. The second highest correlation values were for the moderately sized ($25 to $50 million) reserve city banks. The country bank applications provided output that was neither as high nor as low as the individual values for the other two bank classes. Additionally, all of the eight possible variables were within the regression equations for the six groups of country banks unlike the other two classes of banks. The higher R^2 values were randomly spread throughout these results and not related to deposit size. The output from all seventeen of these applications was acceptable as evaluated by their F-ratios. This summarized output is contained in Table 45.

As with model 23a, all the results from model 23b were within the acceptable F-levels. The addition of the net changes in the two uses of funds accounts as independent variables did increase the correlation values of all of the applications. The highest R^2 value (.8762) from this model

TABLE 45

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 23a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.3365	.797	7
10 to under 25	.4677	1.098	8
25 to under 50	.7094	3.051	8
50 to under 100	.5021	1.585	7
100 to under 250	.5968	2.325	7
250 and over	.5589	1.584	8
Country Banks:			
under 5	.4956	1.288	8
5 to under 10	.5661	1.631	8
10 to under 25	.6198	2.038	8
25 to under 50	.5144	1.324	8
50 to under 100	.3605	.705	8
100 to under 250	.6393	2.215	8
Non-member Banks:			
under 5	.7218	3.243	8
5 to under 10	.5922	2.282	7
10 to under 25	.2081	.526	6
25 to under 50	.4028	.843	8
50 to under 100	.6241	2.975	8

Source: Developed from the output of the models used in this study.

was for the reserve city banks with deposits from $10 to $25 million with the second highest value (.8578) occurring for the country banks in this same size category. A pattern of higher R^2 values existed for the smaller deposits size reserve city banks. This same pattern, although somewhat weaker, prevailed for the country banks and non-member banks. As a class the reserve city banks produced the highest multiple coefficient of determination values, followed by the country banks, with the non-member banks providing the lowest values (Table 46).

Net Change in Total Deposits[9]

Total deposits constitute the vast majority of funds available for commercial banks to invest. Because of this, changes in this aggregate account will be reflected in the asset portfolio which a bank holds. The composition of total deposits varied for the classes of banks within this study; larger banks were more dependent upon demand deposits and smaller banks were more reliant upon time and savings deposits. Additionally, the larger banks received a greater portion of their funds from non-deposit liability sources, primarily

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[9]Total deposits were defined to include the sum of demand deposits and time and savings deposits of individuals, partnerships, and corporations, deposits of the United States Government, deposits of states and political subdivisions, deposits of foreign governments and official institutions, commercial bank deposits, and certified and officers' checks.

TABLE 46

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 23b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7391	3.541	8
10 to under 25	.8762	5.664	10
25 to under 50	.7620	3.202	9
50 to under 100	.5593	1.015	10
100 to under 250	.6330	1.725	9
250 and over	.6294	1.699	9
Country Banks:			
under 5	.6607	1.558	10
5 to under 10	.7399	2.845	9
10 to under 25	.8578	4.827	10
25 to under 50	.5892	1.148	10
50 to under 100	.4914	.966	9
100 to under 250	.7391	2.567	10
Non-member Banks:			
under 5	.7415	2.869	9
5 to under 10	.6576	2.401	8
10 to under 25	.4222	.731	9
25 to under 50	.5511	1.228	9
50 to under 100	.6424	1.437	10

Source: Developed from the output of the models used in this study.

federal funds purchased, than the smaller banks. Models 24a and 24b used the net changes in total deposits as their dependent variables.

The F-ratios for all of the applications of model 24a were acceptable. The two smallest classes of non-member banks produced the highest R^2 values from this model (Table 47). The country banks under $5 million, from $25 to $50 million, and from $100 to $250 million also generated relatively high correlation values. The highest R^2 value for the reserve city class was for those banks from $100 to $250 million, with the single bank in the under $5 million reserve city class also having a relatively high value. The lowest R^2 value was for the reserve city banks with deposits between $10 and $25 million, with the non-member banks in this same size category having the second lowest value.

These correlation values were highest for the non-member banks and lowest for the reserve city banks. The higher R^2 values were dispersed by deposit size for the two classes of Federal Reserve System member banks. The non-member banks had higher correlations for the smaller banks, although this was not without exception.

Model 24b included the net change in the two uses of funds accounts as independent variables in addition to the eight independent variables in model 24a. The relationship of deposit change to loan and investment change is basic to bank operations. Thus the large increases in these R^2 values

TABLE 47

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 24a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6116	1.968	8
10 to under 25	.2589	.699	6
25 to under 50	.4281	1.176	7
50 to under 100	.5799	1.725	8
100 to under 250	.6527	2.954	7
250 and over	.4590	1.333	7
Country Banks:			
under 5	.6025	1.895	8
5 to under 10	.5988	1.865	8
10 to under 25	.4037	.846	8
25 to under 50	.6810	2.669	8
50 to under 100	.5535	1.550	8
100 to under 250	.6300	2.128	8
Non-member Banks:			
under 5	.7595	3.947	8
5 to under 10	.7847	2.003	8
10 to under 25	.3685	.917	7
25 to under 50	.5902	1.800	8
50 to under 100	.5578	1.983	7

Source: Developed from the output of the models used in this study.

and F-ratios for model 24b over those from model 24a were expected. The F-ratios from model 24b for the reserve city bank under $5 million, the country banks from $50 to $100 million, and the non-member banks from $5 to $10 million were beyond their respective acceptable F-levels.

The highest acceptable R^2 values from these applications were for the country banks with all four of the smaller size categories being in excess of .8100 (Table 48). The acceptable values for the reserve city banks were lower than for the other two classes, although there was a strong pattern of higher values with larger deposit size for this banks class. The acceptable output for the non-member banks provided an opposite pattern of R^2 values and deposit size than that for the reserve city banks. The highest acceptable multiple coefficient of determination value was for the smallest class of non-member banks for this the last of the deposit models.

Net Change in Federal Funds Purchased[10]

The purchase of federal funds in essence means that the purchaser has immediately available title to another bank's reserves at a Federal Reserve Bank. The purchase side of the federal funds market thus allows banks the opportunity to buy the excess reserves of other banks on a day to day basis

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[10]Federal funds purchased were defined to include federal funds purchased and securities sold under agreements to repurchase.

TABLE 48

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 24b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8034	5.107	8
10 to under 25	.6410	1.785	9
25 to under 50	.6205	1.635	9
50 to under 100	.7528	3.045	9
100 to under 250	.8060	3.323	10
250 and over	.8454	4.375	10
Country Banks:			
under 5	.8310	4.305	9
5 to under 10	.8319	4.948	9
10 to under 25	.8192	3.624	10
25 to under 50	.8324	3.974	10
50 to under 100	.9041	9.430	9
100 to under 250	.7177	2.034	10
Non-member Banks:			
under 5	.8623	5.011	10
5 to under 10	.8950	6.814	10
10 to under 25	.8357	4.069	10
25 to under 50	.7858	4.586	8
50 to under 100	.6692	2.023	9

Source: Developed from the output of the models used in this study.

as an additional source of reserves. As such, this market provides an excellent source of bank funds. Larger banks are traditionally more active in purchasing such funds, while smaller banks most often participate as sellers.

The net change in federal funds purchased was employed as the dependent variable in model 25a. This model did not include the two uses of funds accounts as independent variables. The results of the applications of this model were all acceptable, with the highest multiple coefficient of determination value (.6604) being generated for the reserve city banks with deposits from $100 to $250 million. The country bank classes produced the next three highest values at .5442, .5402, and .5400. The lowest R^2 value was .2100 for the non-member banks with deposits from $10 to $25 million. The overall correlation values for the non-member banks were less than those of the other two bank classes, with the mean of the R^2 values for the reserve city banks being slightly greater than that of the country banks. With the exception of the relatively low R^2 values for all three classes of banks under $5 million in deposits, no other deposit size trend was discernible. These results are summarized by Table 49.

As with model 25a, all of the output from model 25b was acceptable. The changes in total loans and total investments added to this model as independent variables would be expected to influence a bank's demand for federal funds. The

TABLE 49

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 25a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.2715	.466	8
10 to under 25	.4012	.837	8
25 to under 50	.4178	.897	8
50 to under 100	.5199	1.701	7
100 to under 250	.6604	3.056	7
250 and over	.4207	.908	8
Country Banks:			
under 5	.3232	.750	7
5 to under 10	.5442	1.492	8
10 to under 25	.4552	1.044	8
25 to under 50	.5402	1.469	8
50 to under 100	.5400	1.468	8
100 to under 250	.2293	.595	6
Non-member Banks:			
under 5	.3128	.715	7
5 to under 10	.5008	1.254	8
10 to under 25	.2100	.418	7
25 to under 50	.3333	.625	8
50 to under 100	.5298	1.771	7

Source: Developed from the output of the models used in this study.

single reserve city bank under $5 million in deposits provided the highest R^2 value (.8714) of the seventeen applications of this model (Table 50). The lowest R^2 value (.3555) was for the largest group of country banks, as the country banks as a class generated the lowest correlation values. All ten of the possible variables entered the regression equations for each of the reserve city bank applications, with the explanation provided by these variables for this class of banks being higher than for the other two classes. The correlation values for non-member banks did follow a trend of higher values as bank size increased. This pattern did not exist for the other two classes of banks.

Net Change in Other Liabilities[11]

The "other" liabilities of commercial banks are not usually thought of as being influenced by monetary policy actions. The only possible exception might be the bankers' acceptances executed by a bank which the Federal Reserve System might purchase through its open market trading operations. With this exception, the remaining "other" liabilities of a commercial bank would be determined by business operating considerations, such as wages and taxes payable and notes

[11]Other liabilities were defined to include liabilities for borrowed money, mortgage indebtedness, outstanding acceptances executed by or for the account of the bank, and all other liabilities not otherwise classified.

TABLE 50

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 25b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8714	5.422	10
10 to under 25	.7443	2.329	10
25 to under 50	.6398	1.421	10
50 to under 100	.7686	2.657	10
100 to under 250	.6893	1.775	10
250 and over	.6070	1.236	10
Country Banks:			
under 5	.3649	.460	10
5 to under 10	.5571	1.258	9
10 to under 25	.4662	.874	9
25 to under 50	.5925	1.163	10
50 to under 100	.6118	1.261	10
100 to under 250	.3555	.551	9
Non-member Banks:			
under 5	.3755	.481	10
5 to under 10	.5225	.876	10
10 to under 25	.5694	1.332	9
25 to under 50	.7963	3.128	10
50 to under 100	.7368	2.230	10

Source: Developed from the output of the models used in this study.

payable (mortgage and others), not unlike non-bank businesses. In terms of total liabilities, this class of liabilities, while increasing during this study, was relatively small.

The net change in other liabilities was used in model 26a as the dependent variable. Table 51 includes the summary of the results from the applications of this model. The R^2 value of .8255 for the country banks with deposits from $10 to $25 million was unacceptable because of the high F-ratio determined for this application. The other sixteen applications provided acceptable results. The highest acceptable multiple coefficient of determination values were for the country banks, with the group of banks with deposits from $25 to $50 million producing the single highest value (.7189). The lowest R^2 value (.0568) was for the single reserve city bank under $5 million in deposits. Given the nature of this account, the low correlation for this bank might be expected. The R^2 values for the non-member banks exceeded those for the reserve city banks, but were less than those for the country banks. The output from this model followed no deposit size trends.

Model 26b included the net changes in total investments and total loans as additional independent variables. As with model 26a, the only unacceptable results were for the country banks with deposits between $10 and $25 million. The greatest gains in R^2 values over model 26a were within the reserve city

TABLE 51

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 26a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.0568	.095	7
10 to under 25	.6954	3.588	7
25 to under 50	.3467	.834	7
50 to under 100	.3496	.672	8
100 to under 250	.4632	1.726	6
250 and over	.2896	.641	7
Country Banks:			
under 5	.6634	2.464	8
5 to under 10	.3800	.963	7
10 to under 25	.8255	5.915	8
25 to under 50	.7189	3.196	8
50 to under 100	.6115	1.967	8
100 to under 250	.5235	1.373	8
Non-member Banks:			
under 5	.5436	2.382	6
5 to under 10	.6251	2.620	7
10 to under 25	.6401	3.557	6
25 to under 50	.4816	1.161	8
50 to under 100	.5810	1.733	8

Source: Developed from the output of the models used in this study.

bank classes. The R^2 values of the non-member banks also increased with the addition of these two variables to the extent such that the values for this class were greater than for the other two classes. No deposit size patterns existed for the output from any of the three groups of banks from the applications of this model. These results are summarized by Table 52.

Net Change in Total Liabilities

Total bank liabilities compose non-capital financing for a bank; the majority of these non-capital funds being provided by deposits owned by the public. As was previously noted in this chapter, the larger banks in this study received most of their deposits from demand depositors; the smaller banks, from time and savings depositors. Thus the major changes in total liabilities are determined by the changes in these respective deposit accounts. The possible exception to this would be for banks to adjust to deposit withdrawals by entering the federal funds market. Models 27a and 27b employed the net change in total liabilities as their dependent variables. The results of these two models are quite similar to the results of the two total deposit models 24a and 24b (Tables 47 and 48). The summarized output from the two total liabilities models is presented in Tables 53 and 54.

TABLE 52

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 26b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.7402	2.279	10
10 to under 25	.7054	1.916	10
25 to under 50	.5570	1.257	9
50 to under 100	.3996	.666	9
100 to under 250	.8064	3.332	10
250 and over	.6826	2.151	9
Country Banks:			
under 5	.6643	2.474	8
5 to under 10	.4209	.727	9
10 to under 25	.9640	21.397	10
25 to under 50	.7615	2.554	10
50 to under 100	.6229	1.321	10
100 to under 250	.6443	1.449	10
Non-member Banks:			
under 5	.6139	1.590	9
5 to under 10	.6892	1.774	10
10 to under 25	.7631	2.577	10
25 to under 50	.6309	1.367	10
50 to under 100	.7691	3.330	9

Source: Developed from the output of the models used in this study.

TABLE 53

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 27a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6622	2.451	8
10 to under 25	.4858	1.484	7
25 to under 50	.3605	1.128	6
50 to under 100	.6054	1.918	8
100 to under 250	.6516	2.338	8
250 and over	.4124	1.403	6
Country Banks:			
under 5	.6001	1.876	8
5 to under 10	.5946	1.834	8
10 to under 25	.3866	.788	8
25 to under 50	.6562	2.385	8
50 to under 100	.5299	1.409	8
100 to under 250	.6086	1.944	8
Non-member Banks:			
under 5	.7659	4.090	8
5 to under 10	.6269	2.100	8
10 to under 25	.3633	.897	7
25 to under 50	.5858	1.768	8
50 to under 100	.6320	2.698	7

Source: Developed from the output of the models used in this study.

TABLE 54

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 27b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8684	8.246	8
10 to under 25	.6628	1.966	9
25 to under 50	.6608	1.948	9
50 to under 100	.7792	2.824	10
100 to under 250	.8258	3.792	10
250 and over	.8389	4.164	10
Country Banks:			
under 5	.8245	3.758	10
5 to under 10	.8155	3.536	10
10 to under 25	.8307	3.926	9
25 to under 50	.8530	4.642	10
50 to under 100	.9038	7.519	10
100 to under 250	.7357	2.227	10
Non-member Banks:			
under 5	.8555	4.738	10
5 to under 10	.8885	6.376	10
10 to under 25	.8360	5.098	9
25 to under 50	.7826	3.601	9
50 to under 100	.7280	2.677	9

Source: Developed from the output of the models used in this study.

When the seven monetary policy variables and the time-series variables were used as independent variables in model 27a, all of the applications of this model produced acceptable results. The highest coefficient of multiple determination value was for the smallest class of non-member banks at .7659, with the second highest value occurring for this same size class of reserve city banks (Table 53). The lower values were .3605 (reserve city banks from $25 to $50 million), .3866 (country banks from $10 to $25 million), and .3633 (non-member banks from $10 to $25 million). The differences in correlation values between the non-member banks and the country banks were slight, while the lowest of these values were for the reserve city banks. The high and low R^2 values were scattered throughout the bank classes, providing no apparent trend by bank deposit size.

As total liabilities provide the bulk of the funds available for total loans and total investments within a bank, the higher R^2 values produced by model 27b over model 27a were anticipated. The F-ratios for the reserve city banks under $5 million, the country banks from $50 to $100 million, and the non-member banks from $5 to $10 million were all unacceptable for model 27b; the remaining fourteen applications did produce acceptable output. The country banks as a class produced the highest correlation values for this model, and the non-member banks provided higher values than the reserve city banks. The acceptable reserve city bank values did

increase as deposit size increased, while the reverse pattern was evident for the non-member banks. The values for the four smaller classes of country banks were closely aligned with no overall deposit size pattern.

Evaluation of the Hypotheses Relative to Models 17a,b through 27a,b

As with the asset models in the previous chapter, the results of the various liability models discussed in this chapter provided both support and contradiction for the three hypotheses of this study. The first hypothesis, that reserve city banks are more responsive to monetary policy changes than country banks, was not as well supported by these results as the other two hypotheses. The second hypothesis concerning responsiveness as related to bank deposit size was well supported for those banks which were Federal Reserve System members. The third hypothesis, that member banks are more responsive to monetary policy changes than non-member banks, was better supported by the output from the various classes of country banks than the reserve city banks.

Hypothesis One

The net change in the deposits of states and political subdivisions was used as the dependent variable for model 20a. The results of the applications of this model included higher R^2 values for the reserve city banks than for the country

banks in support of the first hypothesis that reserve city banks were more responsive to changes in monetary policy than country banks. Higher correlation values were also generated for the reserve city banks when the net change in certified and officers' checks was the dependent variable (model 23b). While the results of both of these models provide support for the first hypothesis, there is little to suggest that changes in these accounts are necessarily determined by monetary policy actions.

The best support for this first hypothesis came from the two net changes in federal funds purchased models (25a and 25b). The results of both of these models provided a higher explanation for the reserve city banks than for the country banks. As the federal funds purchased by a bank may be adjusted on a daily basis in response to monetary and operational conditions, the results from these models strongly supported this hypothesis.

The two classes of publicly owned deposits and their applications in models 17a, 18a, and 18b provided the most important evidence against the first hypothesis. The results of model 17a (net change in demand deposits) produced the highest multiple coefficient of determination values for the country banks. The output of both of the time and savings deposits models (18a and 18b) also contradicted the first hypothesis. As these two publicly owned classes of deposits provide the vast majority of bank funds, these results are

particularly important. The results of model 24a (net change in total deposits) and models 27a and 27b (net change in total liabilities) also produced higher correlations for the country banks than for the reserve city banks. As demand deposits and time and savings deposits comprise most of the total deposits and total deposits comprise most of total liabilities, these results were to a large degree reflections of the results of models 17a, 18a, and 18b.

The deposits of commercial banks (models 22a and 22b) produced results contrary to the first hypothesis as did the output in model 26a, "other" liabilities. The results of the two commercial banks' deposits models would not be unimportant as such deposits may be a significant and volatile source of bank funds. In contrast, changes in "other" liabilities are for the most part directed by non-monetary policy concerns.

Hypothesis Two

Both of the net change in demand deposits models (17a and 17b) produced results which supported the second hypothesis that larger banks are more responsive to changes in monetary policy than smaller banks. This trend of higher R^2 values for the larger classes of banks was particularly evident for the reserve city banks. As demand deposits are a most important element in the total supply of money, these results are quite significant. Also contributing to this

importance was the fact that for the larger banks demand deposits composed a relatively larger percentage of total deposits than for the smaller banks. As demand deposits were the most important source of funds for the larger banks, the higher correlations for these classes of banks were similar to the output of model 25b (net change in total deposits). Likewise, as total liabilities were primarily comprised of total deposits the results from model 27b also resembled those of models 17b and 24b. The results of these important models, while supporting the second hypothesis with the output for the country banks and reserve city banks, did not support this hypothesis with the output for the non-member banks. In fact, a reverse pattern prevailed for much of the results of these models for the non-member banks.

Additional support for the second hypothesis was found in the output for the reserve city banks from model 22b (net change in commercial banks' deposits). This class of banks did provide higher R^2 values as bank size increased. The other two classes of banks exhibited no trend of either higher or lower R^2 values with deposit size, however. The non-member banks supported this second hypothesis with their output from the federal funds purchased model (27b). While the results from this model for this class of banks did support this hypothesis, the correlation values for the non-member banks were not as high as those for the reserve city banks.

However, the reserve city banks did not produce a consistently higher explanation as deposit size rose.

The strongest contradiction of the second hypothesis was provided by the output from model 18a (net change in time and savings deposits). While not without exception, the banks with smaller deposits provided higher R^2 values for all three classes of banks. As these banks generally received a greater proportion of their funds from time and savings deposits than did the larger banks, these results warrant consideration.

Using the net change in deposits of states and political subdivisions as the dependent variable in model 20a produced lower correlations for the larger non-member banks than for the smaller banks in this class. The reasons for changes in this class of deposits are most probably beyond monetary policy considerations, and as such this contradiction of the second hypothesis is not as significant as that provided by model 18a. The output of R^2 values was also inverse to deposit size for model 23b (net change in certified and officers' checks). While this inverse pattern was strongest for the reserve city banks, it also persisted for the other two classes of banks. The importance of this contradiction is confined because of the relative volume of certified and officers' checks to total deposits was limited for the smaller banks in this study.

Hypothesis Three

That banks which are members of the Federal Reserve System are more responsive to changes in monetary policy than non-member banks was the essence of the last hypothesis. Generally, the models considered in this chapter supported this hypothesis for the country banks belonging to the Federal Reserve System better than for the reserve city banks within the system. Thus while there was good support for this hypothesis, such support was not always consistent with both classes of Federal Reserve System member banks.

The third hypothesis was best supported by models 22b and 25a. Model 22b employed the net change in commercial banks' deposits as the dependent variable. These deposits are an important source of bank funds to the holder and a source of liquidity to the depositors. These deposits would be expected to vary with changes in monetary policy and thus be an indication of responsiveness to such changes. The higher R^2 values prevailed for the member banks with this model. Model 25a (federal funds purchased) also was a model with a dependent variable quite susceptible to changes in monetary policy. As with model 22b, the multiple coefficient of determination values were greatest for the reserve city banks and the country banks thus supporting the last hypothesis.

The reserve city banks and the country banks had higher R^2 values from model 19a (net change in United States Government deposits) than did the non-member banks. Both of the state and political subdivisions deposits models (20a and 20b) provided similar output. The results of all three of those government owned deposits models thus supported the third hypothesis, although the reasons for these changes in deposits could quite possibly be other than monetary policy variation. Additional support for the third hypothesis was found in the net change in certified and officers' checks model 23b, which produced higher correlation values for the Federal Reserve System member banks than for the non-member banks. The importance of this model was limited, however, due to the relative small size of certified and officers' checks in terms of total deposits.

The third hypothesis was contradicted by the output of models 17b (demand deposits) and 18b (time and savings deposits). As both of these models employed very important dependent variables, this contradiction was significant. However, the F-ratio output from the five classes of non-member banks for each of these models required the rejection of the results for two of the five classes. Thus while higher correlations existed for the acceptable applications of these models for the non-member banks, the member banks provided a larger relative share of acceptable results.

The output of model 24a (total deposits) also produced higher R^2 values for the non-member banks contrary to the third hypothesis. The results from this model were quite important as total deposits represent most of bank funds. The only possible factor limiting this importance would be the greater dependence of non-member banks upon time and savings deposits, as a stable class of deposits, than upon demand deposits. In contrast, the member banks were more reliant upon demand deposits as a source of their funds.

Summary

Of the various models considered in this chapter some had dependent variables much more appropriate for measuring monetary policy impacts than others. Of these, the demand deposits models, the deposits of commercial banks models, and the federal funds purchased models were the most important. The demand deposits models gained their significance from their relationship to the supply of money and the commercial banks' deposits and federal funds purchased models because of their ability to quickly respond to monetary policy changes. Other models of importance, although not as important for the purposes of this study, were the time and savings deposits models, the total deposits models, and the total liabilities models.

The demand deposits models must be given consideration in that this class of deposits comprises such an important

segment of the total supply of money. The output from these models supported the hypothesis that larger banks are more responsive to monetary policy changes than smaller banks. However, the other two hypotheses were contradicted by the results from these models. Thus these models failed to support the contentions of this study that reserve city banks are more responsive to monetary policy changes than country banks and that member banks are more responsive to these same changes than non-member banks.

Strong support for the second hypothesis (concerning the responsiveness of banks relative to size) and the third hypothesis (relating to member bank and non-member bank responsiveness) was provided by the commercial banks' deposits models. These models were particularly important because they represented a significant source of funds to the banks holding these deposits. Additionally, these deposits are a source of liquidity for the depositing bank as they may be quickly withdrawn if needed. Because of these characteristics, these accounts would be expected to fluctuate with Federal Reserve System monetary policy actions. Thus the support provided for the second and third hypotheses by these models warrants consideration.

Unlike the other liability models in this chapter, the volume of federal funds purchased by a commercial bank may be quickly and easily altered on a daily basis. Because of the high degree of flexibility afforded a bank by the purchase

of federal funds, such purchases offer a bank a relatively easy method of adjusting its reserve position to monetary policy changes. The output of the federal funds purchased models are quite significant in that they provided at least some support for all three of the hypotheses of this study. This support was strongest for the first hypothesis (that reserve city banks are more responsive to monetary policy changes than country banks) and the third hypothesis (that member banks are more responsive to monetary policy changes than non-member banks).

Time and savings deposits, in terms of total deposits, were more important for the smaller classes of banks in this study than for the larger banks. The results from the time and savings deposits models contradicted all three of the hypotheses. These models provided a pattern of higher correlations for the country banks than for the reserve city banks, for the smaller than the larger banks, and for the non-member banks than for the member banks. While these results were not unimportant, the potential responsiveness of time and savings deposits to changes in monetary policy is not as great as for some of the other models.

The total deposits models used with the data grouped by changes in open market operations supported the first hypothesis in that the only acceptable results applied to the reserve city banks. In contrast, the data developed from the call reports contradicted this hypothesis by providing higher

correlations for the country banks than for the reserve city banks. These models provided good support for the hypothesis that larger banks are more responsive to monetary policy changes. As total deposits constitute the majority of bank funds, these models are important as an indication of changes in the availability of these funds relative to monetary policy actions. However, as certain classes of deposits may vary for reasons beyond monetary policy concerns, the significance of these changes must be considered in light of the relative importance of these classes of deposits.

The total liabilities models were closely related to the total deposits models as total deposits comprise most of total liabilities. The pattern on contradiction for the first hypothesis and support for the second hypothesis, similar to that for the total deposits models, continued. These results are subject to the same limiting factors that apply to the total deposits models.

In summary, the models in this chapter with the more volatile dependent variables (demand deposits, commercial banks' deposits, and federal funds purchased) provided some support for the hypotheses of this study. However, those models with large aggregate dependent variables (time and savings deposits, total deposits, and total liabilities) produced only mixed support, and in some cases outright contradiction of the hypotheses. Overall the second hypothesis (that larger banks are more responsive to monetary policy

changes than smaller banks) was best supported and the first hypothesis (that reserve city banks are more responsive to monetary policy changes than country banks) was the least well supported.

The following chapter considers the remaining accounts developed from the call reports. These variables will include the various reserve and capital accounts and the total of the liability, reserve, and capital accounts. The method of discussion employed in this chapter and the previous chapter is followed for these models.

CHAPTER VI

ANALYSIS OF THE RESPONSIVENESS OF MINORITY INTEREST, RESERVES, TOTAL CAPITAL ACCOUNTS, AND THE TOTAL OF LIABILITIES, MINORITY INTEREST, RESERVES, AND CAPITAL ACCOUNTS

The models discussed in the fourth and fifth chapters had asset accounts and liability accounts as their respective dependent variables. In completing the traditional accounting subdivision of accounts, the models in this chapter include the minority interest in consolidated subsidiaries, the reserve accounts, the capital accounts, and the total of these three classes of accounts with total liabilities. As banks receive most of their funds from liability sources, only this last class of these accounts represents a large sum subject to frequent fluctuations.

The data available for the models discussed in this chapter were developed from the call reports. The "statement of condition" data used for the data grouped by changes in open market operations were not available for these various accounts.

The first models considered in this chapter are 28a and 28b. These two models employed the net change in the

minority interest in consolidated subsidiaries held as the dependent variables. Most of the seventeen classes of banks did not maintain such interests, and these interests were relatively small for the banks that did hold them. The relative importance of these models is therefore limited.

The next class of models was the reserves models (29a,b and 30a,b). The reserves on loans models (29a and 29b) were more important than the reserves on investments models (30a and 30b) as all of the classes of banks did maintain some reserves on loans, but four classes of the reserve city banks did not maintain reserves on investments. However, the significance of both of these classes of models was limited because of their small size and the restrictions on changing these accounts.

The total capital accounts models (31a and 31b) are important because of restrictions on loans and investments relative to the capital accounts of a bank. In order for a bank to be able to expand its maximum loan limit to individual borrowers, it must expand its capital accounts. Because of this relationship of capital to loans and the size of the capital accounts, relative to the minority interests held and the reserves accounts, these models are more important than models 28a,b; 29a,b; and 30a,b.

The last models (32a and 32b) of this study included the sum of the minority interest account, the reserves accounts, the capital accounts, and the total liabilities

account as the dependent variable. Because total liabilities constitute most of this aggregate account, the results from these models are similar to those from the total liabilities models 27a and 27b. Additionally, as total assets are equal to total liabilities, minority interest, reserves, and capital, the results from model 32a are identical to those of model 16a where the net change in total assets was the dependent variable. Because of the close relationship these models (32a and 32b) have to total liabilities and total deposits, they are the most important models considered in this chapter.

The various models are first discussed in numerical order with principal concern given to the multiple coefficient of determination values generated. As with the previous two chapters, R^2 values are used as the basic correlation measure between the balance sheet accounts as the dependent variables and the monetary policy variables as the independent variables. This discussion is comparative in nature, centering upon differences by bank classifications. As with the models considered in the previous two chapters, the F-ratios are used to evaluate the statistical significance or nonsignificance of the output of the individual applications. Those applications whose F-ratios exceeded their critical F-values at the .01 were considered unacceptable for use in evaluating the hypotheses. Throughout this chapter those applications which provided F-ratios in excess of the

appropriate F-values at this .01 level are thus referred to as unacceptable.[1] The number of variables within the regression equations at the last step is also considered in the discussion of these results.[2]

Those equations with the "a" subscript include only the net change in the seven monetary policy variables and the time-series variable as the independent variables. The equations with the "b" subscript additionally include the net changes in total investments and total loans as independent variables. As was the case in Chapter V, concern in given to the incremental explanation provided by these two additional variables in the equation "b" models over the equation "a" models.

As stated in the first chapter, the hypotheses of this study are: (1) The response of reserve city banks to monetary policy actions has been of a greater relative magnitude than has been the response of country banks to the same actions. (2) Large banks, as defined by deposit size, responded to changes in monetary policy actions with a greater relative magnitude than did small banks. (3) Banks which

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[1]The F-test and appropriate related degrees of freedom for each application were employed in the same manner as in Chapters IV and V. References to the F-test and degrees of freedom are given in footnotes 1 and 2 of Chapter IV.

[2]As specified in the statistical procedures section of Chapter III, the F-value for the inclusion of a variable within the regression equations was set at .01 and the F-value for deletion at .005. (F-values, not alpha levels, were used.)

are members of the Federal Reserve System have responded to changes in monetary policy actions with a greater relative magnitude than have banks which are not members of the Federal Reserve System. Following the discussion of the output of these various models in terms of bank classifications and deposit size, the models are evaluated as they relate to the hypotheses. Each of the three hypotheses is discussed in order with consideration first given to those results which support the hypothesis. After this discussion of support, those results which are contrary to the hypothesis are evaluated.

A summary section concerning the more important models and their respective results concludes this chapter.

Description of the Output of Models 28a,b through 32a,b

Models 28a,b through 32a,b used the data developed from the call reports as their dependent variables. As there were seventeen classes of banks developed from the call reports, each of these models was used seventeen times. Thus there were 170 applications of models 28a through 32b. However, not all of the seventeen classes of banks maintained all of these accounts and some of the applications were therefore void. As was described in the previous section these models included minority interest in consolidated subsidiaries, reserves on loans, reserves on investments, capital accounts, and the sum of these four plus total liabilities.

Net Change in Minority Interest in Consolidated Subsidiaries

Only three of the seventeen classes of banks in this study held any minority interest in consolidated subsidiaries. The class of country banks with deposits from $25 to $50 million first reported a $24,000 commitment in this area as of June, 1969, call report. This $24,000 commitment declined to $22,000 by the end of 1971, at which time total assets for this class of banks equaled $3.2 billion. The country banks under $5 million in deposits had $30,000 in minority interest in consolidated subsidiaries at December, 1969, and $33,000 as of the June, 1970, call report. By the December, 1970, call report these banks had divested themselves of these interests. These $30,000 and $33,000 figures were rather insignificant when compared with the $4.2 billion in total assets these banks held at mid-year 1970. The other class of banks reporting any minority interest held in consolidated subsidiaries was the non-member banks with deposits from $5 to $10 million. This class of banks first reported a $2,000 commitment as of June, 1970, which increased to $3,000 by December, 1971. As of December, 1970, total deposits for this class of banks exceeded $3 billion.

The output of the net change in the minority interest in consolidated subsidiaries models (28a and 28b) is presented in Tables 55 and 56, respectively. Of the six applications for these two models, only the F-ratio for model 28a for the

TABLE 55

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 28a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		
100 to under 250	no data		
250 and over	no data		
Country Banks:			
under 5	no data		
5 to under 10	no data		
10 to under 25	no data		
25 to under 50	.7650	5.116	7
50 to under 100	no data		
100 to under 250	no data		
Non-member Banks:			
under 5	.3180	.252	7
5 to under 10	.3183	.584	8
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		

Source: Developed from the output of the models used in this study.

TABLE 56

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 28b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		
100 to under 250	no data		
250 and over	no data		
Country Banks:			
under 5	no data		
5 to under 10	no data		
10 to under 25	no data		
25 to under 50	.7660	3.274	9
50 to under 100	no data		
100 to under 250	no data		
Non-member Banks:			
under 5	.5293	.899	10
5 to under 10	.4245	.590	10
10 to under 25	no data		
25 to under 50	no data		
50 to under 100	no data		

Source: Developed from the output of the models used in this study.

country banks with deposits from $25 to $50 million was beyond the level of acceptance. However, because of the very insignificant magnitude of these accounts and the limited number of observations available, conclusions relative to these results would be unwarranted.

Reserves

Banks are allowed to establish reserve accounts for both loans and securities. The basic purposes of such reserves are to provide against loss from a bank's investments in these assets and to reduce taxable income through the recognition of loss reserves. Reserve accounts are established and altered by a bank's board of directors and thus will not change without action on the part of this group. Models 29a,b and 30a,b employed the net change in reserves on loans and securities as their respective dependent variables.

Net Change in Reserves on Loans[3]

By the very nature of being in the loan business, banks expect that some of their loans will not be repaid at maturity. All other things being equal, the larger a bank's volume of loans relative to its total assets, the greater this probability of some "bad" loans. Additional factors such as a bank's commitment of different types of loans within its

[3]Reserves on loans were defined to include reserves for bad debt losses on loans and any other reserves on loans.

loan portfolio will also influence this loss pattern. As a bank's loans increase and/or the level of risk inherent in these loans increases, then it would be expected that the board of directors of the bank would increase the designated reserves on the loan portfolio. As may be noted from the Appendix, reserves on loans did increase during the period of this study. Most often these reserves amounted to between 1 1/2 percent and 2 percent of the total loan portfolio for the various classes of banks.

Model 29a employed the net change in reserves on loans as the dependent variable. The output from the seventeen applications of this model was acceptable when evaluated by the appropriate F-values and is summarized in Table 57. The highest correlations were for the reserve city banks with the single highest R^2 value being for the banks with deposits from $25 to $50 million in this group. The lowest R^2 values were for the country banks as four of the six classes of banks in this group produced values of less than .3800. The results of these applications followed no deposits size pattern for any of the three classes of banks.

The addition of the net changes in total loans and total investments as independent variables in model 29b raised the R^2 values for all seventeen applications. As with model 29a, all of the F-ratios were acceptable for model 29b. In contrast to the results from model 29a, the country banks generated the highest correlation values for model 29b instead

TABLE 57

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 29a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5212	1.383	8
10 to under 25	.3502	.674	8
25 to under 50	.6844	2.711	8
50 to under 100	.3329	.784	7
100 to under 250	.3301	.774	7
250 and over	.4942	1.221	8
Country Banks:			
under 5	.3790	.763	8
5 to under 10	.3207	.944	6
10 to under 25	.3715	.739	8
25 to under 50	.3523	.855	7
50 to under 100	.5338	1.799	7
100 to under 250	.4673	1.379	7
Non-member Banks:			
under 5	.4721	1.405	7
5 to under 10	.4352	.963	8
10 to under 25	.3361	.633	8
25 to under 50	.3124	.714	7
50 to under 100	.4172	.895	8

Source: Developed from the output of the models used in this study.

of the lowest. The single highest R^2 value (.8298) was for the reserve city banks with deposits from $50 to $100 million and the lowest value (.4307) was for the smallest class of country banks (Table 58). The non-member banks produced the lowest correlations for this model, and the correlation trends by deposit size were not discernible for any of the bank classes.

Net change in reserves on securities

By their very nature the securities purchased by a bank are less subject to default than the loans that a bank might make. However, a bank may elect to establish reserves against the possibility of default on such securities it holds. These reserves amounted to approximately two-tenths of one percent of total assets or one-half of one percent of total investments for most of the classes of banks in this study which maintained such reserves. As indicated by Tables 59 and 60, four of the six classes of reserve city banks did not maintain such reserves.

The highest correlations from model 30a, where the net change in the reserves on securities was the dependent variable, were produced for the non-member classes of banks (Table 59). The only unacceptable results from these applications were for the smallest class of country banks. As only two classes of reserve city banks maintained such reserve

TABLE 58

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 29b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6791	2.029	9
10 to under 25	.5315	1.418	8
25 to under 50	.7041	1.904	10
50 to under 100	.8298	3.910	10
100 to under 250	.4514	1.028	8
250 and over	.6450	1.454	10
Country Banks:			
under 5	.4307	.605	10
5 to under 10	.8038	3.277	10
10 to under 25	.8126	4.335	9
25 to under 50	.6195	1.628	9
50 to under 100	.6787	2.112	9
100 to under 250	.5968	1.184	10
Non-member Banks:			
under 5	.6026	1.213	10
5 to under 10	.8288	3.874	10
10 to under 25	.6843	2.167	9
25 to under 50	.4692	.707	10
50 to under 100	.6446	1.814	9

Source: Developed from the output of the models used in this study.

TABLE 59

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 30a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	.6184	2.025	8
50 to under 100	no data		
100 to under 250	no data		
250 and over	.1582	.235	8
Country Banks:			
under 5	.8353	7.968	7
5 to under 10	.6011	1.883	8
10 to under 25	.2483	.519	7
25 to under 50	.2336	.479	7
50 to under 100	.3620	.709	8
100 to under 250	.2233	.575	6
Non-member Banks:			
under 5	.8485	4.041	7
5 to under 10	.7196	3.208	8
10 to under 25	.6447	2.268	8
25 to under 50	.4271	1.172	7
50 to under 100	.5834	1.750	8

Source: Developed from the output of the models used in this study.

accounts, conclusions relative to this class would not be well supported. For both the country banks and the non-member banks, a pattern of lower R^2 values with larger deposit size existed, although not without exception.

Model 30b included the two net change in uses of funds accounts as additional independent variables. The same non-member banks still had higher R^2 values than the country banks (Table 60). The only unacceptable results remained for the smallest class of country banks. An inverse trend of R^2 values and deposit size did not exist for this model as it had for model 30b, however.

Net Change in Total Capital Accounts[4]

As any other business, banks need capital for the initial establishment of their operations and for later expansion. However, unlike most other industries, bank capital is an element in the regulatory structure for the industry. With certain limited exceptions, banks are restricted to lending any one borrower an amount not in excess of 10 percent of the bank's capital and surplus. This same 10 percent restriction applies to securities holdings of any one obligor. Of these two restrictions, the loan limitation one creates more

[4]Total capital accounts were defined to include capital notes and debentures, preferred stock, common stock, surplus, undivided profits, reserves for contingencies, and other capital accounts.

TABLE 60

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 30b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	no data		
10 to under 25	no data		
25 to under 50	.6433	1.443	10
50 to under 100	no data		
100 to under 250	no data		
250 and over	.3056	.440	9
Country Banks:			
under 5	.9012	7.298	10
5 to under 10	.8137	4.368	9
10 to under 25	.2727	.468	8
25 to under 50	.3064	.684	7
50 to under 100	.5574	1.259	9
100 to under 250	.4250	.739	9
Non-member Banks:			
under 5	.8061	3.835	9
5 to under 10	.7541	2.453	10
10 to under 25	.6540	2.970	7
25 to under 50	.7520	2.426	10
50 to under 100	.6456	1.821	9

Source: Developed from the output of the models used in this study.

frequent problems for banks. Because of these restrictions, banks may elect to increase their capital accounts in order to expand their credit limits to customers. Thus over a period of sustained growth in bank deposits and funds available, a bank may decide that it is imperative to expand its capital accounts in order to meet demands for increasingly larger loans.

Model 31a used the net change in the total capital account of banks as the dependent variable with the seven basic monetary policy variables and the time-series variable as the independent variables. These applications provided unacceptable output for the following five classes of banks when evaluated by the appropriate F-values: all three classes of banks with deposits from $10 to $25 million, the country banks with deposits from $5 to $10 million, and the non-member banks with deposits from $50 to $100 million. Excluding the unacceptable results, the highest R^2 value was for the largest class of country banks at .7867 with the lowest R^2 value for the largest class of reserve city banks at .2107. Only three of the five classes of non-member banks produced acceptable results; however, all three of these were in excess of .7000 and thus this class of banks produced the highest correlations. The reserve city classes of banks had by far the lowest correlations and with generally lower correlations with increased bank size. In none of the six reserve city bank applications did all of the variables enter the regression

equations, while this model appeared to be much more appropriate for the other classes of banks. The output of this model is summarized by Table 61.

The addition of the net changes in total investments and total loans to model 31a, as independent variables, created model 31b. The largest classes of both the country banks and the non-member banks provided unacceptable results from this model as did the country banks with deposits from $25 to $50 million. The highest acceptable R^2 value (.8554) was for the non-member banks from $10 to $25 million in deposits with the same size class of reserve city banks producing the second highest value (.8538). As with model 31a, the largest class of reserve city banks also produced the lowest R^2 value (.3846) for model 31a. The acceptable multiple coefficient of determination values were higher for the non-member banks than for the other two classes, with the country bank values exceeding those of the reserve city banks. For the Federal Reserve System member banks a limited pattern of declining R^2 values with increased deposit size was evident (Table 62).

Net Change in the Sum of Total Liabilities, Minority Interest in Consolidated Subsidiaries, Reserves, and Total Capital Accounts

Of the dependent variables considered in this chapter, the sum of all of the liabilities, the minority interest in

TABLE 61

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 31a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.5591	1.993	7
10 to under 25	.8441	8.505	7
25 to under 50	.5831	2.797	6
50 to under 100	.3404	1.342	5
100 to under 250	.3931	1.296	6
250 and over	.2107	.419	7
Country Banks:			
under 5	.7568	3.890	8
5 to under 10	.8127	5.425	8
10 to under 25	.8189	5.652	8
25 to under 50	.6632	3.094	7
50 to under 100	.5338	1.431	8
100 to under 250	.7867	4.611	8
Non-member Banks:			
under 5	.7085	3.039	8
5 to under 10	.7346	3.460	8
10 to under 25	.8044	5.142	8
25 to under 50	.7601	3.961	8
50 to under 100	.8402	6.572	8

Source: Developed from the output of the models used in this study.

TABLE 62

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 31b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6470	2.291	8
10 to under 25	.8538	4.672	10
25 to under 50	.6087	1.244	10
50 to under 100	.4054	.682	9
100 to under 250	.5304	.868	10
250 and over	.3846	.625	9
Country Banks:			
under 5	.8000	4.000	9
5 to under 10	.8166	3.563	10
10 to under 25	.9425	13.105	10
25 to under 50	.6699	2.030	9
50 to under 100	.5647	1.038	10
100 to under 250	.9375	15.009	9
Non-member Banks:			
under 5	.7161	2.018	10
5 to under 10	.7786	2.813	10
10 to under 25	.8554	4.731	10
25 to under 50	.7679	2.646	10
50 to under 100	.8664	6.483	9

Source: Developed from the output of the models used in this study.

consolidated subsidiaries, the reserves, and the capital accounts was the most important. This importance arises from the very large role deposits play in changing this summation account. As this summation account includes all of the items on the right-hand side of the balance sheet, the dependent variable was equivalent to the net change in total assets variable used in models 16a,b.

Model 32a did not include the two uses of funds accounts as additional independent variables. The results of the seventeen applications of this model are shown by Table 63. All of the applications of this model produced acceptable results. The highest R^2 values were determined for the nonmember banks with the class of banks under $5 million in deposits producing the single highest value (.7622). The results for the reserve city banks were higher than for the country banks; however, there was less dispersion among the values for the country banks. The output for none of the three bank classes followed any deposit size trend.

Model 32b did include the two uses of funds accounts as additional independent variables. Unlike model 16b (total assets with the net change in total deposits as an additional independent variable), the results of most of the applications of this model were acceptable. The results of the single reserve city bank with deposits under $5 million, the country banks with deposits from $50 to $100 million, and the nonmember banks with deposits from $5 to $10 million were

TABLE 63

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 32a BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.6773	2.624	8
10 to under 25	.5327	1.792	7
25 to under 50	.3452	.828	7
50 to under 100	.6011	1.884	8
100 to under 250	.6182	2.024	8
250 and over	.3909	1.283	6
Country Banks:			
under 5	.5817	1.738	8
5 to under 10	.5767	1.703	8
10 to under 25	.3584	.698	8
25 to under 50	.6457	2.278	8
50 to under 100	.5160	1.333	8
100 to under 250	.5883	1.786	8
Non-member Banks:			
under 5	.7622	4.008	8
5 to under 10	.6120	2.479	7
10 to under 25	.3453	.829	7
25 to under 50	.5801	1.727	8
50 to under 100	.6172	2.533	7

Source: Developed from the output of the models used in this study.

rejected because their F-ratios exceeded the appropriate F-values at the .01 level.

Of the acceptable output, the highest single R^2 value (.8730) was for the largest class of reserve city banks with the group of banks with deposits between $25 and $50 million in this same reserve city class producing the lowest value (.6584). The country banks produced the highest multiple coefficient of determination values as a class as the four smallest classes of banks in this group had R^2 values in excess of .8150. The non-member banks' results were higher than those of the reserve city banks, with lower R^2 values as deposit size increased for the non-member banks. In contrast, with only one exception, the output for the reserve city banks followed a pattern of higher correlations with larger deposit size. These results are summarized in Table 64.

Evaluation of the Hypotheses Relative to Models 28a,b through 32a,b

The models considered in this chapter do not support the three hypotheses of this study as well as those considered in Chapters IV and V. In essence, the results of these models provided more contradiction than support for the hypotheses. The second hypothesis, that bank responsiveness to monetary policy increases with bank deposit size, was the least well supported of the three. While the first and third hypotheses, relating to reserve city banks versus country banks and member

TABLE 64

MULTIPLE COEFFICIENT OF DETERMINATION, F-RATIO, AND THE NUMBER OF VARIABLES IN THE REGRESSION EQUATION FOR EQUATION 32b BY BANK CLASSIFICATION AND DEPOSIT SIZE

Bank Class and Deposit Size as of June 30, 1962 (in millions of dollars)	R^2	F-Ratio	Number of Variables
Reserve City Banks:			
under 5	.8868	6.510	9
10 to under 25	.7018	2.353	9
25 to under 50	.6484	1.844	9
50 to under 100	.7791	2.821	10
100 to under 250	.8067	3.338	10
250 and over	.8730	5.501	10
Country Banks:			
under 5	.8276	3.840	10
5 to under 10	.8169	3.569	10
10 to under 25	.8275	3.839	10
25 to under 50	.8488	4.490	10
50 to under 100	.9063	9.669	9
100 to under 250	.7198	2.568	9
Non-member Banks:			
under 5	.8663	5.182	10
5 to under 10	.9002	7.215	10
10 to under 25	.8390	5.212	9
25 to under 50	.7860	3.673	9
50 to under 100	.7174	2.031	10

Source: Developed from the output of the models used in this study.

banks versus non-member banks, were better supported than the second, there was still much contradictory output.

Hypothesis One

The best support for the first hypothesis, that reserve city banks are more responsive to monetary policy changes than country banks, was provided by model 32a. This model which used the sum of total liabilities, minority interest in consolidated subsidiaries, reserves, and total capital accounts as the dependent variable did provide higher multiple coefficient of determination values for the reserve city banks than for the country banks. Of the various models discussed in this chapter, this particular dependent variable must be considered the most important because of its relationship to total deposits. Additional support for this hypothesis was provided by model 29a (reserves on loans). However, this was not a very important model in terms of potential responsiveness to monetary policy changes.

Both of the total capital accounts models (31a and 31b) produced higher correlations for the country banks than the reserve city banks, thus conflicting with the first hypothesis. Because of the capital restrictions relating to bank loans and investments to individual borrowers or obligors, this contradiction was important. In contrast to model 32a, when net changes in total investments and total loans were added as independent variables to the summation account used as the

dependent variable in model 32b, the R^2 values were higher for the country banks than for the reserve city banks. Because of the size of this account and its relationship to total deposits, this was the most important of the results contrary to the first hypothesis.

Hypothesis Two

The only support for the second hypothesis, that larger deposit size banks are more responsive to changes in monetary policy than smaller banks, was provided from model 32b. This support was limited to the reserve city classes of banks for this model which used the sum of total liabilities, minority interest in consolidated subsidiaries, reserves, and capital as the dependent variable. While this was an important model, none of the other models produced any support for this hypothesis.

Model 32b also generated inversely related R^2 values with deposit size for the non-member banks in contradiction to the second hypothesis. Further contradiction of this hypothesis was provided by output for both classes of Federal Reserve System banks for model 31b (net change in total capital as the dependent variable). Model 31a results for the reserve city banks were in conflict with this hypothesis, too. Only the non-member banks and the country banks provided enough output to reach any conclusions about model 30a (reserves on securities). These results also contradicted this

hypothesis that larger banks are more responsive to changes in monetary policy. Of these models producing results not compatible with the second hypothesis, those of model 32b were the most important, followed in importance by those of models 31a and 31b.

Hypothesis Three

The country banks produced the highest multiple coefficient of determination values for model 32b, thus supporting the third hypothesis that Federal Reserve System member banks are more responsive to monetary policy changes than non-member banks. This same model produced higher R^2 values for the non-member banks than for the reserve city banks in contradiction to this hypothesis, however. The results from this very important model were therefore mixed in regard to this hypothesis. Model 29b did support the third hypothesis as the output for both classes of Federal Reserve System member banks contained higher correlation values for the reserves on loans model than did the output for the non-member banks. This model was rather insignificant when compared with models 31a,b and 32a,b, thus limiting the importance of this support for the third hypothesis.

The strongest contradiction of the last hypothesis was from the two total capital accounts models (31a and 31b). Both of these models provided higher levels of explanation for the non-member banks than for the other two classes of banks.

A pattern of contradiction of this hypothesis was also found in the output of models 30a and 30b (reserves on securities). Because of the limited size of this account and the fact that four of the six classes of reserve city banks did not maintain such reserves, this contradiction was limited in significance.

Summary

Of the five separate dependent variable accounts considered in this chapter, two were much more closely related to monetary policy changes than the others. The summation of total liabilities, minority interest in consolidated subsidiaries, reserves, and capital accounts was by far the most important of these accounts. This importance developed from the size of this account and its dependence upon total deposits. The capital account models were also important because of the loan and investment limitations tied to the capital accounts of banks. As was discussed in this chapter, only three of the seventeen classes of banks maintained a minority interest in consolidated subsidiaries, and four of the reserve city banks did not maintain reserves on securities. Even for those banks maintaining such accounts, the relative size of these accounts was quite small. Reserves on loans represented the other dependent variable considered in this chapter. While all of the bank classes in this study did maintain reserves on loans, this account was not very large. There is little to suggest a strong relationship between the minority

interest in consolidated subsidiaries and/or the reserve accounts and monetary policy changes.

The summation of total liabilities, minority interest in consolidated subsidiaries, reserves, and the capital accounts supported the hypothesis that reserve city banks are more responsive to monetary policy changes than country banks. However, when the net changes in total investments and total loans were added as independent variables to this model, the pattern of higher correlations for the reserve city banks over the country banks reversed itself, thus conflicting with this hypothesis. This model did support the contention that larger banks were more responsive to monetary policy changes than smaller banks for the reserve city banks but conflicted with this contention for the non-member banks. The results relating to the Federal Reserve System member banks and non-member banks were also mixed for this model. While the country banks showed higher correlations supporting this hypothesis than did the non-member banks, the non-member banks produced higher correlations than the reserve city banks.

The total capital account models provided no support for any of the three hypotheses of this study. These models produced higher correlations for the country banks than for the reserve city banks and for the non-member banks than for the member banks. While not all of the results from these models conflicted with the second hypothesis, that larger banks are more responsive to monetary policy changes than smaller banks,

none of these results supported this hypothesis. As there were many more banks in the smaller deposit size classes (primarily non-member banks and country banks) than in the larger deposit size classes (primarily reserve city banks and country banks), it would be expected that changes in these aggregate capital accounts for the smaller deposit size classes would occur more frequently than for the larger deposit size classes. This factor, unrelated to monetary policy change, might partially explain some of the higher correlations for the non-member banks and the smaller classes of banks from these capital account models.

The following chapter summarizes and evaluates the more important findings of this study. Some conclusions are also offered, along with suggestions for future research in this area.

CHAPTER VII

EVALUATION AND SUMMARY

As the purpose of this study was to consider differences in response to monetary policy changes by various classes of banks, the results of this project provide two areas of concern. The first of these is the relationship of the output from the more important models of the study to the three hypotheses. Given some further research in this area, both the support and contradiction of the hypotheses imply possibilities for redirecting monetary policy in order to enhance its effectiveness. The second area of concern involves the relative merits and liabilities of the two sources of dependent data employed in this study. This chapter first evaluates the three hypotheses relative to the more important models and then evaluates the two dependent data sources. The implications of this evaluation of the hypotheses are next discussed, and the chapter is concluded with suggestions for further research.

Evaluation of the Hypotheses

Of the sixty-four models considered in this study, some were much more applicable to studying the question of

responsiveness to monetary policy change than others. The appropriateness of the various models was dependent upon the ease with which a bank might change a particular account, the relative size of the accounts, and the directness of its relationship to monetary policy instruments.

Of the asset models, the United States Treasury securities models, the federal agency obligations models, the total loans models, and the federal funds sold models were the most important. The United States Treasury securities models were important because these are the instruments in which most open market operations of the Federal Reserve System occur. The federal agency obligations models gained their importance because they are money market instruments offering low risk and high liquidity. Because of the deposit creation relationship of granting loans and the very large size of the total loans account, the total loans models were very important. The flexibility afforded a bank by selling its excess reserves in the federal funds market on a daily basis made the federal funds sold models significant in relation to monetary policy changes.

The most important liabilities models were the demand deposit models, the deposits of commercial banks models, and the federal funds purchased models. As demand deposits are the largest element in most definitions of supply of money, the demand deposit models were significant. It has been upon this class of publicly owned demand deposits that much of

monetary policy has been directed, thus adding to the importance of these models. Commercial banks' deposits models were important because they represent a significant source of liquidity for the depositors to use in response to monetary policy change. Additionally, they are a large source of deposit funds for the holding bank which must invest in highly liquid assets. As a source of funds with which to meet reserve requirements, banks may purchase federal funds. This access to the excess reserves of other banks offers a bank a great deal of flexibility in managing its own asset portfolio in response to monetary policy. Because of this flexibility, these federal funds purchased models gained their importance for this study.

Other important assets models, although not as important as the ones discussed above, were the state and municipal obligations models, the total investment models, and the total assets models. Because of the size of the total loans account and its relationship to demand deposits, the total loans models were more important than these three other asset models. The United States Treasury securities, federal agency obligations, and federal funds sold models all offer greater flexibility than the state and municipal obligations, total investments, and total assets models--thus making them more significant for this study. For similar reasons the total deposits models, total liabilities models, and the sum of the total liabilities, minority interest in consolidated

subsidiaries, reserves, and total capital accounts models were not as important as the demand deposits, deposits of commercial banks, and federal funds purchased models.

In considering the output from these more important models, the second hypothesis (that bank responsiveness to monetary policy changes is greater for larger banks than for smaller banks) was better supported than the other two hypotheses. The last hypothesis, that Federal Reserve System banks are more responsive to such changes than non-member banks, was also supported but not as strongly as the second hypothesis. The results of this study do not exhibit a definite pattern of greater responsiveness on the part of reserve city banks to changes in monetary policy than country banks--the essence of the first hypothesis. The results of the more important models provide more evidence in contradiction of this first hypothesis than in support of it.

The strongest support for the first hypothesis, that the reserve city banks are more responsive to monetary policy changes than the country banks, was provided by the federal agency obligations and federal funds purchased applications of the models. The higher correlations for the reserve city banks might be expected for these models as the larger, more sophisticated banks would be more involved in trading federal agency obligations in response to changing monetary conditions than the smaller banks. Also, it would be the large reserve

city banks which would more frequently enter the federal funds market on the purchase side.

The results of the United States Treasury securities, total loans, demand deposits, and the commercial banks' deposits applications were contrary to the first hypothesis. The relative size of the total loans and demand deposits accounts made these results particularly significant. As all four of these applications employed important dependent variables, their results provided strong evidence to refute this hypothesis. On balance, the contradictions of this hypothesis were stronger than the support.

The overall results of the United States Treasury securities, federal agency obligations, and demand deposits applications supported the second contention of this study that banks with larger deposits are more responsive to monetary policy changes than smaller banks. The output from these three accounts was in agreement with this hypothesis for the reserve city banks, the country banks, and the non-member banks. The reserve city banks supported this hypothesis for the deposits of the commercial banks applications, while the results for the other two classes of banks were mixed for this application. In a similar manner, the non-member banks supported this hypothesis for the federal funds purchased applications; however, the two Federal Reserve System classes of member banks provided no deposit size pattern with their output.

In contrast to this second hypothesis, the federal funds sold applications provided higher correlations for the smaller banks than the larger ones. Of the more important models considered, this was the only one which contradicted the second hypothesis. As it is usually the smaller banks which sell federal funds, however, this contradiction was not totally beyond tentative explanation.

The third hypothesis of this study stated that banks which belong to the Federal Reserve System are more responsive to monetary policy changes than non-member banks. Because of the role of the Federal Reserve System in determining and implementing monetary policy, it was expected that this hypothesis would have received the strongest support. However, in reviewing the results of the more significant models, this was not the case. While there was more support for this hypothesis than contradiction, it was not supported as well as the second hypothesis relating to bank size.

The Federal Reserve System member banks did respond to changes in monetary policy by altering their holdings of United States Treasury securities in a manner which yielded higher correlations than those for the non-member banks. They also bought and sold federal funds in a manner which provided the same trend of higher correlations. Additionally, the deposits of their correspondent banks varied in response to monetary policy changes such that the applications of these accounts provided higher explanations for the member banks than for

the non-member banks. The results of all four of these classes of accounts thus supported the last hypothesis.

However, the output of some of the total loans and demand deposits applications was contrary to this third hypothesis. Unlike federal funds sold or purchased, federal agency obligations, and/or United States Treasury securities, the total loan portfolio and/or demand deposits of a bank might be quite difficult to alter in response to a monetary policy change. However, the volume of credit represented to both a bank's customers and to a bank by these two variables is quite important. Thus these contradictions are significant because of the large size of both of these classes of accounts.

In considering these results relative to the three hypotheses, they indicate that for this study the most important factor in determining bank responsiveness to monetary policy change was bank size. On balance, the existence of Federal Reserve membership--including class--or non-membership as related to monetary policy was not as important as deposit size.

Evaluation of the Dependent Data Sources

Prior to the actual performance of this study it was not possible to critically determine the applicability of the two data sources to a study of this nature. From the results of this study, it was evident that models 1a,b through 4a,b (which employed the monthly "statement of condition" data available from the Federal Reserve Bank of Atlanta) were not

as satisfactory as those models which used the call report data. Even though the models using the "statement of condition" data were grouped by changes in open market operations in an effort to reduce their redundancy, their output was not acceptable for nine of the sixteen applications of these models. The basic problem with these data was their aggregate nature as these data included all reserve city banks and country banks in the Sixth Federal Reserve District. Thus, as new banks entered the system, their investments, loans, total assets, and total deposits were added to these aggregate accounts. The increases in these accounts associated with these new banks would not have been directed by monetary policy changes. Thus this data source was not as desirable as it first appeared for the purposes of this study. Additional factors detracting from the desirability of this data source were the absence of data available for non-member banks and the inability to subdivide the available data by deposit size classes.

The semi-annual call report data used to develop the seventeen classes of banks for models 5a,b through 32a,b proved more satisfactory for this study than did the "statement of condition" data. The basic advantage of these data was the capability of maintaining the same banks in a single data class for the full ten years of the study. Because of this capability, the problem of growth in these accounts from new banks becoming part of the data sets was excluded. This

then allowed the results of the models to reflect only what had happened to those banks in the data sets. The major shortcoming of these data was their semi-annual availability. As monetary policy changes do not take place only at the end of June and December, this was an important limitation.

Implications for Monetary Policy

The scope and depth of this study were not sufficiently broad to provide irrefutable evidence regarding the effectiveness of monetary policy in directing bank response to such policy. Nevertheless, given future research in this area, two possible additions to the present monetary policy instruments are suggested by the results of this study.

From the support the models of this study gave to the second hypothesis, that larger deposit size banks are more responsive to monetary policy changes than smaller deposit banks, the November, 1972, adopted method of calculating reserves requirements for net demand deposits on the basis of deposit size might be studied for possible expansion. While this method presently applies only to demand deposits and the number of deposit size classes is limited, the possibility of expanding this system with more deposit size classes and the inclusion of time and savings deposits warrants consideration. This study did indicate the relative greater importance of time and savings deposits to smaller banks than larger banks,

yet the reserve requirements on these deposits are the same regardless of bank size and/or dependence upon these deposits.

A more radical departure from the present system of monetary regulation would call for reserves against certain classes of assets. The possibility does exist of requiring lower reserves to be held against those asset classes which quickly respond to monetary policy changes and higher requirements against those which respond more slowly. In a system such as this, lower reserve requirements would be required against United States Treasury securities, federal agency obligations, and federal funds sold than against loans and those state and municipal obligations having a limited market. As different classes of loans may be more easily altered by a bank than others, possible varying requirements might apply to loan classes. As an illustration, banks may control the volume of commercial loans outstanding much more easily than the volume of credit card loans. Thus lower reserve requirements might be placed upon commercial loans than upon credit card loans. The questions of the relationship of the present reserve requirements on deposits to such a system of required reserves on assets and the use of and potential effectiveness of such a system need a great deal of additional research.

Suggestions for Further Research

One of the more important limitations of this study was the aggregate nature of the loan data. Because of this

limitation it was not possible to consider the effects of monetary policy on different classes of loans. As loans are the most important single class of bank assets, future research might well be directed toward the analysis of the responsiveness of various types of bank loans to changing monetary policy.

The role of the bank holding company in directing bank action was not within the scope of this study. With the recent emergence and continued expansion of bank holding companies in the Sixth Federal Reserve District, future research might concentrate on the differences in response to monetary policy of banks belonging to holding companies and those which are independent of such. In this same vein, the question of the role of branch banking and its effect upon monetary policy might also be considered.

Small banks in the Sixth Federal Reserve District, particularly those in non-urban areas, experienced very significant growth during the period of this study. More research is certainly needed in defining and evaluating those factors other than monetary policy which created and directed this growth.

As discussed previously in this chapter, the problems of data available only semi-annually or in some cases monthly and the aggregate nature of the loan data available limited the precision of this study. One possible solution to these problems would be the use of a sampling approach in a study

of this nature. Such an approach would involve sampling individual banks and using their daily management report statements as the basic source of the dependent data. While the form of these internal use statements varies a great deal, most include detailed breakdowns by class of loans, investments, and deposits. The very nature of the volume of data involved and the differences in internal report form would most probably dictate the use of a sampling approach. However, this approach would eliminate most of the problems of aggregating data and would provide much greater control of the timing of the data employed.

APPENDIX

1962--1971 SUMMARY OF THE CALL REPORTS OF ALL BANKS IN THE SIXTH FEDERAL RESERVE DISTRICT GROUPED BY RESERVE CITY BANKS, COUNTRY BANKS, AND NON-MEMBER BANKS AND CLASSIFIED BY DEPOSIT SIZE AS OF JUNE 30, 1962

The tables presented in this appendix summarized the call report of condition (Federal Reserve Form 105-Call 198, as revised June, 1969) data, grouped by bank class and deposit size, as used as the dependent variables for most of the models in this study. These data classes were developed from the magnetic tape file of the call reports of condition of all insured commercial banks. These tapes were made available by the Board of Governors of the Federal Reserve System through the Division of Data Processing.

The form of the accounts, as presented in the tables, is the same as the form of the call reports with the following exceptions: (1) Total investments are not specified by the call reports. This aggregate account, as presented in the tables, was developed by summing the five individual securities accounts. (2) Fixed assets, as shown in the tables, refer to the sum of both bank premises and real estate owned other than bank premises. (3) Other assets, in the following tables, include investments in subsidiaries not consolidated, customers liabilities to the banks on acceptances outstanding, and all other assets not otherwise classified. (4) Other liabilities, as presented in the tables, include other liabilities for borrowed money not otherwise classified, mortgage indebtedness, outstanding acceptances executed by

or for the account of the banks, and all other liabilities not otherwise classified. (5) Reserves on loans, as shown in the tables, include both reserves for bad debt losses and other reserves on loans.

The federal funds sold account, as presented in the tables, includes securities purchased under agreements to resell. Likewise the federal funds purchased account includes securities sold under agreements to repurchase. The call report form does not differentiate between these two federal funds accounts and their respective resell and repurchase accounts. Demand deposits and time and savings deposits, as shown in the tables, both refer to the deposits of individuals, partnerships, and corporations. Total demand deposits and total time and savings deposits, are presented parenthetically on the call report form but were not included in the magnetic tape file.

Tables 65 through 70 include the data relating to the six deposit size classes of reserve city banks. Tables 71 through 76 are for the six deposit size classes of country banks. The data for the five classes of non-member banks are provided by Tables 77 through 81.

TABLE 65

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL RESERVE CITY BANKS
UNDER $5 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	817	1384	589	685	666	736	608
U. S. TREASURY SECURITIES	714	1289	1087	1714	1768	1770	1968
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	0	0	0	100	150	150	150
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	30	60	170	166	164	184	183
OTHER SECURITIES	36	36	33	36	35	35	35
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	780	1385	1290	2016	2117	2139	2336
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	1144	1186	1274	2212	2481	2843	2387
FIXED ASSETS	1023	1008	990	984	959	941	926
OTHER ASSETS	20	13	18	39	46	42	45
TOTAL ASSETS	3784	4976	4161	5836	6119	6551	6152

TABLE 65--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	1850	1718	2524	1496	2185	1330	11814
U. S. TREASURY SECURITIES	2169	1571	2315	1415	2012	1563	1676
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	150	0	0	0	0	0	10
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	202	200	108	103	102	137	100
OTHER SECURITIES	35	35	35	35	80	80	80
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	2556	1806	2458	1553	2194	1780	1866
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	2844	3559	4058	4262	5450	9052	10748
FIXED ASSETS	912	956	1097	596	574	1216	1230
OTHER ASSETS	46	79	88	2459	2457	2360	2311
TOTAL ASSETS	8058	8118	10225	10366	12860	15738	27969

TABLE 65--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	9721	9819	8467	10281	13522	17096
U. S. TREASURY SECURITIES	2257	1736	1735	1724	1732	8915
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	0	332	0	0	0	950
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	100	89	790	588	5093	2817
OTHER SECURITIES	146	111	608	745	979	131
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	2503	2268	3133	3057	7804	12813
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	4700	3350	500	600	0	6500
OTHER LOANS	25018	17865	25102	29092	36872	48112
FIXED ASSETS	1272	1333	1360	1454	1562	3729
OTHER ASSETS	5598	6030	4569	4775	5211	5248
TOTAL ASSETS	48812	40665	43131	49259	64971	93498

TABLE 65--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	1847	2402	1891	2401	2315	2382	2380
TIME AND SAVINGS DEPOSITS	267	426	620	727	843	972	1179
DEPOSITS OF U. S. GOVERNMENT	91	76	194	63	45	37	44
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	322	915	350	448	516	682	530
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	0	0	0	953	1149	1231	723
CERTIFIED AND OFFICER'S CHECKS	41	35	14	14	13	15	39
TOTAL DEPOSITS	2568	3854	3069	4606	4881	5319	4895
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	54	37	55	48	58	45	68
TOTAL LIABILITIES	2622	3891	3124	4654	4939	5364	4963
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	0	0	0	0	0	0	0
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	1162	1085	1037	1182	1180	1187	1189
TOTAL LIABILITIES AND CAPITAL	3784	4976	4161	5836	6119	6551	6152

TABLE 65--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	3031	4026	4983	4632	4757	7876	12049
TIME AND SAVINGS DEPOSITS	1291	1807	2036	2241	2352	2792	4097
DEPOSITS OF U. S. GOVERNMENT	29	64	28	37	43	53	73
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	1682	420	1810	575	2087	405	749
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	656	25	25	25	25	230	7007
CERTIFIED AND OFFICER'S CHECKS	119	56	13	11	397	830	335
TOTAL DEPOSITS	6808	6398	8895	7521	9661	12186	24310
FEDERAL FUNDS PURCHASED	0	400	0	0	0	0	0
ALL OTHER LIABILITIES	56	117	110	121	321	628	363
TOTAL LIABILITIES	6864	6915	9005	7642	9982	12814	24673
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	0	0	0	0	0	0	0
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	1194	1203	1220	2724	2878	2924	3296
TOTAL LIABILITIES AND CAPITAL	8058	8118	10225	10366	12860	15738	27969

TABLE 65--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	18602	17189	20452	20267	25881	26366
TIME AND SAVINGS DEPOSITS	14178	7459	5132	5997	8144	13100
DEPOSITS OF U. S. GOVERNMENT	1327	567	591	606	1037	526
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	597	605	800	609	3459	22523
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	4441	5023	4173	5007	9687	11857
CERTIFIED AND OFFICER'S CHECKS	336	424	253	1619	561	490
TOTAL DEPOSITS	39481	31267	31401	34105	48769	74862
FEDERAL FUNDS PURCHASED	1850	2200	3200	600	7750	9000
ALL OTHER LIABILITIES	1085	916	3280	8957	2483	3255
TOTAL LIABILITIES	42416	34383	37881	43662	59002	87117
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	24	18	100	113	103	103
RESERVES ON SECURITIES	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	6372	6264	5150	5484	5866	6278
TOTAL LIABILITIES AND CAPITAL	48812	40665	43131	49259	64971	93498

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 66

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL RESERVE CITY BANKS
$10 TO UNDER $25 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	1609	2162	2764	2250	2085	2064	3019
U. S. TREASURY SECURITIES	2194	1609	1736	1388	1437	1833	2350
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	794	674	766	856	951	606	681
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	1880	1911	2217	2235	2500	2549	2863
OTHER SECURITIES	19	39	40	40	23	44	61
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	4887	4233	4759	4519	4911	5032	5955
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	5481	5787	6431	6453	7047	6849	6728
FIXED ASSETS	96	109	94	122	131	161	191
OTHER ASSETS	61	58	69	64	71	73	73
TOTAL ASSETS	11340	11675	13351	12552	13294	13573	15285

TABLE 66--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	2611	2689	2205	2959	3265	2933	1949
U. S. TREASURY SECURITIES	1960	1714	1112	2258	1707	2779	2657
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	706	938	794	581	531	556	756
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	2928	2871	3098	3103	3974	4944	6315
OTHER SECURITIES	61	61	61	61	61	71	71
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	5655	5584	5065	6003	6273	8350	9799
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	6862	7119	7273	6443	6401	7042	6617
FIXED ASSETS	238	293	424	949	967	1244	1239
OTHER ASSETS	67	76	84	80	92	92	88
TOTAL ASSETS	14727	15761	15051	16434	16998	19661	19692

TABLE 66--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	3056	2348	2586	3955	4773	4626
U. S. TREASURY SECURITIES	2014	977	981	704	1923	2878
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	771	394	325	86	65	343
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	7153	8933	9508	10111	7263	7444
OTHER SECURITIES	61	61	62	62	62	62
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	9999	10365	10876	10963	9313	10727
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	1550	0	0
OTHER LOANS	7485	7891	10778	11520	13260	13156
FIXED ASSETS	4193	4859	4827	4697	5054	6094
OTHER ASSETS	115	130	115	205	188	249
TOTAL ASSETS	24848	25593	29182	32390	32588	34852

TABLE 66--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	4787	4750	5867	5105	5489	5409	6490
TIME AND SAVINGS DEPOSITS	4953	5043	5120	5184	5465	5566	5581
DEPOSITS OF U. S. GOVERNMENT	203	253	426	271	205	207	200
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	145	186	349	362	393	548	627
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	0	105	213	166	176	171	171
CERTIFIED AND OFFICER'S CHECKS	72	90	106	109	220	227	161
TOTAL DEPOSITS	10160	10427	12081	11197	11948	12128	13230
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	249	266	278	292	248	305	316
TOTAL LIABILITIES	10409	10693	12359	11489	12196	12433	13546
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	109	108	113	109	125	141	140
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	822	874	879	954	973	999	1599
TOTAL LIABILITIES AND CAPITAL	11340	11675	13351	12552	13294	13573	15285

TABLE 66--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	5762	6429	6072	7165	7269	8425	7927
TIME AND SAVINGS DEPOSITS	5792	5771	5595	5858	5945	6353	6501
DEPOSITS OF U. S. GOVERNMENT	175	255	112	129	594	803	848
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	556	793	845	847	675	794	987
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	171	0	0	0	0	0	0
CERTIFIED AND OFFICER'S CHECKS	184	346	239	202	326	187	378
TOTAL DEPOSITS	12640	13594	12863	14201	14809	16562	16641
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	326	363	365	395	363	546	390
TOTAL LIABILITIES	12966	13957	13228	14596	15172	17108	17031
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	142	129	168	170	146	149	145
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	1619	1675	1655	1668	1680	2404	2516
TOTAL LIABILITIES AND CAPITAL	14727	15761	15051	16434	16998	19661	19692

TABLE 66--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	9007	9090	11683	15035	9771	10571
TIME AND SAVINGS DEPOSITS	7301	7938	8598	8838	9314	10101
DEPOSITS OF U. S. GOVERNMENT	1036	604	161	1513	293	1944
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	1195	910	1421	791	5646	5185
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	0	0	0	0	0	0
CERTIFIED AND OFFICER'S CHECKS	287	309	369	382	241	431
TOTAL DEPOSITS	18826	18851	22232	26559	25265	28232
FEDERAL FUNDS PURCHASED	0	0	0	0	1300	0
ALL OTHER LIABILITIES	3251	3996	4265	3722	3695	4191
TOTAL LIABILITIES	22077	22847	26497	30281	30260	32423
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	148	179	183	179	13	25
RESERVES ON SECURITIES	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	2623	2567	2502	2430	2341	2404
TOTAL LIABILITIES AND CAPITAL	24848	25593	29182	32890	32588	34852

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 67

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL RESERVE CITY BANKS
$25 TO UNDER $50 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	8565	8401	8304	6983	6047	11688	8752
U. S. TREASURY SECURITIES	11096	10637	10641	9658	9834	10138	9444
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	0	0	0	460	250	300	400
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	1931	1253	857	857	857	857	857
OTHER SECURITIES	72	72	72	209	209	209	224
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	13099	11962	11570	11184	11150	11504	10925
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	17385	19463	20040	20982	24041	23910	26786
FIXED ASSETS	443	456	414	476	289	294	292
OTHER ASSETS	468	360	554	380	530	455	499
TOTAL ASSETS	39960	40642	40882	39545	41807	47551	46854

TABLE 67--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	13250	9287	11384	9253	13657	11148	12051
U. S. TREASURY SECURITIES	9758	9700	8724	7923	7232	8283	9143
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	400	1750	1429	1357	786	714	0
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	856	3516	5599	12868	13126	14037	16006
OTHER SECURITIES	224	304	334	334	333	303	308
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	11238	15270	16086	22482	21477	23337	25457
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	5200	1300	1100	500	0	8000	6000
OTHER LOANS	24552	25713	27991	29793	35012	34017	37660
FIXED ASSETS	546	889	875	1677	1656	1654	1657
OTHER ASSETS	545	677	684	704	705	713	1014
TOTAL ASSETS	54931	53136	58120	64409	72507	78869	83839

TABLE 67--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	12785	14717	13030	16159	14274	15552
U. S. TREASURY SECURITIES	7169	7172	7175	7176	7177	7179
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	1000	0	0	0	0	0
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	21330	19043	18204	16551	19089	20564
OTHER SECURITIES	126	126	161	156	186	186
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	29625	26341	25540	23883	26452	27929
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	3200	1000	900	3200	5000	1000
OTHER LOANS	39073	38662	44623	50476	62207	70977
FIXED ASSETS	2850	2859	2887	2907	2838	2756
OTHER ASSETS	1343	948	1038	1274	1430	1184
TOTAL ASSETS	88876	84527	88018	97899	112201	119398

TABLE 67--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	12785	14717	13030	16159	14274	15552
U. S. TREASURY SECURITIES	7169	7172	7175	7176	7177	7179
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	1000	0	0	0	0	0
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	21330	19043	18204	16551	19089	20564
OTHER SECURITIES	126	126	161	156	186	186
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	29625	26341	25540	23883	26452	27929
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	3200	1000	900	3200	5000	1000
OTHER LOANS	39073	38662	44623	50476	62207	70977
FIXED ASSETS	2850	2859	2887	2907	2838	2756
OTHER ASSETS	1343	948	1038	1274	1430	1184
TOTAL ASSETS	88876	84527	88018	97899	112201	119398

TABLE 67--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	18917	20749	21927	19552	19404	21072	20225
TIME AND SAVINGS DEPOSITS	13039	12107	10618	10932	11210	11985	13743
DEPOSITS OF U. S. GOVERNMENT	967	767	935	733	864	767	1373
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	3118	2814	2305	2605	3393	3638	3036
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	1	1	1	1	1	1	1
DEPOSITS OF COMMERCIAL BANKS	497	553	594	767	722	3841	1386
CERTIFIED AND OFFICER'S CHECKS	266	526	977	555	542	1103	388
TOTAL DEPOSITS	36805	37517	37357	35145	36136	42407	40152
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	400	405	503	414	1409	659	2195
TOTAL LIABILITIES	37205	37922	37860	35559	37545	43066	42347
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	160	54	143	193	225	204	153
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	2595	2666	2879	3793	4037	4281	4354
TOTAL LIABILITIES AND CAPITAL	39960	40642	40882	39545	41807	47551	46854

TABLE 67--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	23959	21946	24426	24078	26803	28713	31705
TIME AND SAVINGS DEPOSITS	16847	16404	22240	25668	28814	30880	35549
DEPOSITS OF U. S. GOVERNMENT	1084	1423	971	607	524	611	690
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	4712	6048	3165	6947	4200	9516	5421
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	1	1	1	1	1	1	1
DEPOSITS OF COMMERCIAL BANKS	2054	1012	923	534	3160	1266	1926
CERTIFIED AND OFFICER'S CHECKS	932	836	690	968	832	865	789
TOTAL DEPOSITS	49589	47670	52416	58803	64334	71852	76081
FEDERAL FUNDS PURCHASED	0	0	0	0	1400	0	0
ALL OTHER LIABILITIES	647	676	847	759	1794	1795	2079
TOTAL LIABILITIES	50236	48346	53263	59562	67528	73647	78160
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	143	128	83	115	90	264	271
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	4552	4662	4774	4732	4889	4958	5408
TOTAL LIABILITIES AND CAPITAL	54931	53136	58120	64409	72507	78869	83839

TABLE 67--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	32207	33214	36369	35290	40428	48471
TIME AND SAVINGS DEPOSITS	35198	31255	31556	36060	42381	47434
DEPOSITS OF U. S. GOVERNMENT	759	279	516	936	432	886
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	6868	3392	4802	10128	11687	7165
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	1	1	1	1	1	1
DEPOSITS OF COMMERCIAL BANKS	2657	5313	2624	3375	4713	3156
CERTIFIED AND OFFICER'S CHECKS	985	1169	944	1300	1533	968
TOTAL DEPOSITS	78675	74623	76812	87090	101175	108081
FEDERAL FUNDS PURCHASED	600	0	900	0	0	0
ALL OTHER LIABILITIES	3382	3121	3209	3274	3088	2702
TOTAL LIABILITIES	82657	77744	80921	90364	104263	110783
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	516	539	549	734	774	1060
RESERVES ON SECURITIES	0	0	1	0	0	0
TOTAL CAPITAL ACCOUNTS	5703	6244	6547	6801	7164	7555
TOTAL LIABILITIES AND CAPITAL	88876	84527	88018	97899	112201	119398

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 68

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL RESERVE CITY BANKS
$50 TO UNDER $100 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	45021	45936	46892	42713	49092	58044	51914
U. S. TREASURY SECURITIES	44088	47473	48386	49522	51736	48236	45199
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	0	0	500	0	1001	1500	0
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	10719	13085	14026	14206	14714	15875	14981
OTHER SECURITIES	454	455	479	480	499	517	528
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	55261	61013	63391	64208	67950	66128	60708
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	62204	66250	63120	73056	73159	83458	96240
FIXED ASSETS	2791	2764	2722	2682	2605	3123	3252
OTHER ASSETS	833	1174	1007	1105	1117	1122	1270
TOTAL ASSETS	166110	177137	176632	183764	192922	210375	213384

TABLE 68--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	70936	68495	76516	60130	88123	70698	92164
U. S. TREASURY SECURITIES	50200	41140	39335	37792	38794	39698	42283
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	60	1600	1800	2400	1400	2199	3649
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	16014	18788	21146	24139	25632	26126	27254
OTHER SECURITIES	537	548	561	582	1007	1039	1048
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	66811	62076	62842	64913	66833	69062	74234
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	1000	200	500	3830	731	0	3600
OTHER LOANS	96827	106460	115440	116556	131287	135936	154532
FIXED ASSETS	3175	3075	3030	2920	2815	2722	3868
OTHER ASSETS	1149	1383	1638	1731	1779	2017	2399
TOTAL ASSETS	239838	241689	259966	250080	291568	280435	330797

TABLE 68--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	83424	127352	115322	146837	117993	119030
U. S. TREASURY SECURITIES	36303	36880	36941	35968	50748	47907
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	3075	4095	3425	4757	15187	9916
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	28613	38415	47501	49709	56683	65455
OTHER SECURITIES	1055	1103	1140	731	1586	6276
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	69046	80493	89007	91165	124204	129554
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	13400	6050	21550	18350	25050	26610
OTHER LOANS	150619	164264	152053	150648	149628	168522
FIXED ASSETS	3786	3706	3632	3373	3858	5098
OTHER ASSETS	2776	2990	3375	2945	3411	3153
TOTAL ASSETS	323051	384855	384939	413318	424144	451967

TABLE 68--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	74594	77104	73782	75843	80446	84531	85369
TIME AND SAVINGS DEPOSITS	35107	35224	36396	37108	39001	40022	45747
DEPOSITS OF U. S. GOVERNMENT	2768	3016	7182	2769	6083	1946	4939
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	13536	18501	16799	23834	19000	25498	21581
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	18895	20239	20732	20368	21559	27553	22660
CERTIFIED AND OFFICER'S CHECKS	1784	1693	1362	1062	1965	1719	1314
TOTAL DEPOSITS	146684	155777	156253	160984	168054	181259	181610
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	2313	4052	2570	4466	5591	8291	10443
TOTAL LIABILITIES	148997	159829	158823	165450	173645	189550	192053
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	550	546	575	568	672	765	832
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	16563	16762	17234	17746	18605	20050	20499
TOTAL LIABILITIES AND CAPITAL	166110	177137	176632	183764	192922	210375	213384

TABLE 68--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	97088	96304	89753	88504	95048	90773	101542
TIME AND SAVINGS DEPOSITS	51766	57499	62214	69384	75211	79060	85669
DEPOSITS OF U. S. GOVERNMENT	1822	3420	2022	1547	1783	1157	701
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	23680	24467	36358	33770	39132	35775	43234
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	32754	25822	35308	22758	45342	37011	61408
CERTIFIED AND OFFICER'S CHECKS	1673	2744	2023	3498	3583	3182	2895
TOTAL DEPOSITS	208783	210256	227678	219461	260099	246958	295449
FEDERAL FUNDS PURCHASED	2300	1000	1000	2400	1100	2100	1675
ALL OTHER LIABILITIES	6926	8078	8333	4769	5382	5546	5995
TOTAL LIABILITIES	218009	219334	237011	226630	266581	254604	303119
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	980	1089	1310	1335	1611	1835	2400
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	20849	21266	21645	22115	23376	23996	25278
TOTAL LIABILITIES AND CAPITAL	239838	241689	259966	250080	291568	280435	330797

TABLE 68--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	97565	105979	100060	106148	107058	108647
TIME AND SAVINGS DEPOSITS	91072	89457	94555	100865	113097	121370
DEPOSITS OF U. S. GOVERNMENT	2754	1256	2532	3692	3210	6528
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	47820	34412	42352	34869	34675	44535
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	34535	104216	87763	109840	98461	95691
CERTIFIED AND OFFICER'S CHECKS	5931	3932	3243	4262	5666	5546
TOTAL DEPOSITS	279677	339252	330505	359676	362167	382317
FEDERAL FUNDS PURCHASED	6675	7425	14375	13300	19625	26675
ALL OTHER LIABILITIES	8322	7336	7725	6819	7288	6647
TOTAL LIABILITIES	294674	354013	352605	379795	389080	415639
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	2400	2900	2914	2964	2978	2977
RESERVES ON SECURITIES	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	25977	27942	29420	30559	32086	33351
TOTAL LIABILITIES AND CAPITAL	323051	384855	384939	413318	424144	451957

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 69

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL RESERVE CITY BANKS
$100 TO UNDER $250 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	473405	518516	496084	505577	518947	619666	508031
U. S. TREASURY SECURITIES	398262	400278	384199	377111	366240	375559	372363
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	12184	15660	13015	20686	14090	14780	27395
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	114421	111873	140034	139059	165122	157204	192488
OTHER SECURITIES	5226	5160	7676	5047	5799	5632	6851
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	530093	532971	544924	541903	551251	553175	599097
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	754661	790051	833260	934612	1010820	1070964	1173995
FIXED ASSETS	34961	35705	41759	45312	46502	47853	50925
OTHER ASSETS	14307	15873	14154	11623	13867	15306	14889
TOTAL ASSETS	1795243	1877456	1917166	2018341	2127297	2292184	2319542

TABLE 69--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	651923	608189	765810	626160	743974	683953	798771
U. S. TREASURY SECURITIES	350568	337053	329115	323996	349582	332901	322963
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	17376	32493	11753	45815	51581	27607	35272
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	209169	247227	244745	271989	267341	307784	337325
OTHER SECURITIES	5516	5746	6064	9897	7680	7839	10192
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	582629	622519	591677	651697	676184	676131	705752
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	15000	8200	750	13467	21442	36250	73450
OTHER LOANS	1244899	1313220	1341998	1356369	1442799	1487232	1579231
FIXED ASSETS	48716	48550	50980	55664	61806	67700	73944
OTHER ASSETS	15671	18346	19056	20813	23190	25937	27010
TOTAL ASSETS	2541462	2619024	2770271	2724170	2969395	2977203	3258158

TABLE 69--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	730214	795375	758557	821989	815503	932924
U. S. TREASURY SECURITIES	284393	271456	257259	306029	364591	316957
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	26020	14645	20895	49118	43549	43088
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	342756	302028	326980	317207	383157	396890
OTHER SECURITIES	15975	15900	16157	16305	24411	37615
TRADING ACCOUNT SECURITIES	32267	27796	25649	48434	27170	25648
TOTAL SECURITIES	701411	631825	646940	737093	842878	820198
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	56400	138016	210350	269365	169050	278600
OTHER LOANS	1623573	1632160	1643641	1656550	1833940	1922501
FIXED ASSETS	88416	95715	97338	96603	98386	105915
OTHER ASSETS	29965	33675	42155	38707	46684	71107
TOTAL ASSETS	3229979	3326766	3398981	3620307	3806441	4131245

TABLE 69--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	729867	775004	752716	815984	796348	882652	838223
TIME AND SAVINGS DEPOSITS	353462	367053	390864	438920	475053	508167	572166
DEPOSITS OF U. S. GOVERNMENT	58254	43257	77800	48611	65958	42453	80260
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	200842	157180	215241	178403	258204	237388	272008
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	2389	2644	2305	2314	1177	2820	4303
DEPOSITS OF COMMERCIAL BANKS	244356	313483	254708	300841	281979	353889	265893
CERTIFIED AND OFFICER'S CHECKS	14393	12101	13048	13876	15041	15705	11978
TOTAL DEPOSITS	1603563	1670722	1706682	1798949	1893760	2043074	2044831
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	36197	45095	42699	44766	45421	56058	76132
TOTAL LIABILITIES	1639760	1715817	1749381	1843715	1939181	2099132	2120963
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	11119	10927	12217	12564	14600	16482	17044
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	144364	150712	155568	162062	173516	176570	181535
TOTAL LIABILITIES AND CAPITAL	1795243	1877456	1917166	2018341	2127297	2292184	2319542

TABLE 69--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	927680	915601	930798	911004	1007019	967315	1097452
TIME AND SAVINGS DEPOSITS	599374	660181	693899	750406	787022	795730	881341
DEPOSITS OF U. S. GOVERNMENT	32586	74563	31453	28471	34262	26681	16616
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	245263	317122	295886	370172	351311	406545	356352
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	4573	1617	2687	1465	1338	1379	1294
DEPOSITS OF COMMERCIAL BANKS	395077	305540	419873	299065	398513	336931	450363
CERTIFIED AND OFFICER'S CHECKS	18185	16697	25239	18960	17962	18047	25487
TOTAL DEPOSITS	2222738	2291321	2399835	2379543	2597427	2552628	2828905
FEDERAL FUNDS PURCHASED	11000	16800	49500	36700	54850	77000	75224
ALL OTHER LIABILITIES	91820	82134	86587	64121	67051	85785	84363
TOTAL LIABILITIES	2325558	2390255	2535922	2480364	2719328	2715413	2988492
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	20295	21045	22316	23416	24096	25109	27948
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	195609	207724	212033	220390	225971	236681	241718
TOTAL LIABILITIES AND CAPITAL	2541462	2619024	2770271	2724170	2969395	2977203	3258158

TABLE 69--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	1037992	1112352	1066931	1146769	1182624	1275075
TIME AND SAVINGS DEPOSITS	818453	779583	797599	917628	1038004	1098566
DEPOSITS OF U. S. GOVERNMENT	15470	30660	43271	49987	40734	54166
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	370255	288156	324954	330127	401686	377157
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	2213	662	786	226	6740	8957
DEPOSITS OF COMMERCIAL BANKS	357600	443212	375862	495589	447612	491016
CERTIFIED AND OFFICER'S CHECKS	20811	18557	19480	24395	24324	20103
TOTAL DEPOSITS	2622794	2673182	2628883	2964721	3141724	3325040
FEDERAL FUNDS PURCHASED	202236	214777	301205	242465	233382	346000
ALL OTHER LIABILITIES	119780	148227	172209	109122	116785	135491
TOTAL LIABILITIES	2944810	3036186	3102297	3316308	3491891	3806531
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	28818	29808	29429	29630	29718	31026
RESERVES ON SECURITIES	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	256351	260772	267255	274369	284832	293688
TOTAL LIABILITIES AND CAPITAL	3229979	3326766	3398981	3620307	3806441	4131245

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 70

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL RESERVE CITY BANKS
$250 MILLION AND OVER IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	605209	656322	674715	712064	736501	788561	757971
U. S. TREASURY SECURITIES	538851	539326	512773	495617	500166	539341	474807
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	6987	26477	9766	14354	14848	21238	10229
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	178002	184789	223241	224944	258735	268214	319066
OTHER SECURITIES	6477	7317	6284	6361	6541	9895	7145
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	730317	757909	752064	741276	780290	838688	811247
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	1332885	1432712	1456967	1580197	1653178	1806999	1948165
FIXED ASSETS	41599	43330	44310	46542	47794	51509	53468
OTHER ASSETS	13343	13610	14844	14200	18838	19505	28647
TOTAL ASSETS	2716366	2877406	2933134	3079925	3221753	3484024	3589269

TABLE 70--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	841807	750008	942911	795888	972754	884515	1056954
U. S. TREASURY SECURITIES	470441	488400	448512	434580	503770	466746	473022
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	26828	6532	4850	28083	26273	13817	27010
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	317562	353420	311634	369585	366637	378966	414706
OTHER SECURITIES	6499	6550	7435	17810	13440	14083	15625
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	821330	854902	772431	850058	910120	873612	930363
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	23500	40500	23600	27461	15589	10996	8561
OTHER LOANS	2085493	2207090	2170379	2232508	2275641	2400068	2641518
FIXED ASSETS	59056	62594	69834	69364	82111	93321	103755
OTHER ASSETS	31241	40126	47847	57911	64053	79227	84823
TOTAL ASSETS	3835599	3955220	4027002	4033190	4320268	4341739	4825974

TABLE 70--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	929798	1067696	1023899	1037805	1089344	1150538
U. S. TREASURY SECURITIES	405619	356859	363315	419944	437416	465535
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	10120	7731	6978	8481	7973	11873
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	423635	393607	388620	452665	533611	585358
OTHER SECURITIES	26770	26585	33644	35492	40384	55214
TRADING ACCOUNT SECURITIES	34719	30472	44712	64123	36334	40216
TOTAL SECURITIES	900863	815254	837269	980705	1055718	1158196
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	25949	91317	117024	162740	144854	193564
OTHER LOANS	2743852	2809632	2900694	2864109	2989957	3097717
FIXED ASSETS	115549	127674	136880	166164	171124	184853
OTHER ASSETS	102620	95595	79230	76616	87042	87097
TOTAL ASSETS	4818631	5007168	5094996	5288139	5538039	5871975

TABLE 70--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	1182228	1310338	1237940	1364910	1315124	1472338	1424419
TIME AND SAVINGS DEPOSITS	560241	569028	622552	672572	730631	813801	923071
DEPOSITS OF U. S. GOVERNMENT	117280	87885	148808	83213	133163	83901	151212
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	214854	179353	226386	190030	246416	217703	281822
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	4768	5390	5304	4378	2319	2301	1033
DEPOSITS OF COMMERCIAL BANKS	299254	382526	327404	396143	349512	450021	365934
CERTIFIED AND OFFICER'S CHECKS	11133	12531	13015	14527	16838	23859	13207
TOTAL DEPOSITS	2389758	2547051	2581409	2725773	2794003	3063924	3160698
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	78371	71287	85736	83741	125183	84766	84386
TOTAL LIABILITIES	2468129	2618338	2667145	2809514	2919186	3148690	3245084
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	28015	29849	30958	31467	32663	36688	38691
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	220222	229219	235031	238944	269904	298646	305494
TOTAL LIABILITIES AND CAPITAL	2716366	2877406	2933134	3079925	3221753	3484024	3589269

TABLE 70--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	1548563	1519800	1618261	1525008	1709799	1628837	1863053
TIME AND SAVINGS DEPOSITS	982861	1037744	1023082	1133202	1198702	1273370	1388991
DEPOSITS OF U. S. GOVERNMENT	63362	127583	61096	58066	67028	50754	40350
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	264868	339465	281718	335209	263432	332257	261610
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	1492	3946	3228	3189	6244	5966	12262
DEPOSITS OF COMMERCIAL BANKS	497074	400549	477915	399180	495861	387196	498775
CERTIFIED AND OFFICER'S CHECKS	20976	17453	24472	21593	24061	20145	38945
TOTAL DEPOSITS	3379196	3446540	3489772	3475447	3765127	3698535	4103986
FEDERAL FUNDS PURCHASED	21700	47150	23900	32618	31725	76450	90142
ALL OTHER LIABILITIES	79413	87011	128188	109676	93516	126749	180403
TOTAL LIABILITIES	3480309	3580701	3641860	3617741	3890368	3901734	4374531
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	43825	45094	49089	50049	52567	54046	57593
RESERVES ON SECURITIES	6178	6381	6293	7657	736	4898	5261
TOTAL CAPITAL ACCOUNTS	311465	329425	336053	365400	377333	385959	393850
TOTAL LIABILITIES AND CAPITAL	3835599	3955220	4027002	4033190	4320268	4341739	4825974

TABLE 70--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	1770786	1832067	1776297	1907539	1871909	2080979
TIME AND SAVINGS DEPOSITS	1373512	1278761	1285649	1413589	1532304	1602589
DEPOSITS OF U. S. GOVERNMENT	64950	61249	85940	93198	93265	97166
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	346323	249146	375305	300444	372826	343693
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	21673	14425	14715	10122	9085	6849
DEPOSITS OF COMMERCIAL BANKS	388405	498890	410859	499732	457745	512150
CERTIFIED AND OFFICER'S CHECKS	25414	36918	25139	38491	30861	43176
TOTAL DEPOSITS	3991063	3971456	3973904	4263115	4367995	4686602
FEDERAL FUNDS PURCHASED	117490	214403	345643	266360	337450	381991
ALL OTHER LIABILITIES	220567	318092	237245	206835	266836	211381
TOTAL LIABILITIES	4329120	4503951	4556792	4736310	4972281	5279974
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	59256	61594	58770	60754	60597	62523
RESERVES ON SECURITIES	5568	3800	3866	4180	4222	4548
TOTAL CAPITAL ACCOUNTS	424687	437823	475568	486895	500939	524930
TOTAL LIABILITIES AND CAPITAL	4818631	5007168	5094996	5288139	5538039	5871975

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 71

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL COUNTRY BANKS
UNDER $5 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	70656	83993	74948	81590	82152	97454	89234
U. S. TREASURY SECURITIES	106476	122208	120573	127405	122110	136988	130129
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	9810	11680	10220	14878	10657	12366	11244
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	35710	39211	41953	44547	46869	50236	53427
OTHER SECURITIES	1631	1616	1383	2257	2132	2313	2093
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	153627	174715	174129	189087	181768	201903	196893
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	172167	183615	202051	212893	230169	239570	261466
FIXED ASSETS	7649	7985	8379	9260	10096	10923	11521
OTHER ASSETS	571	663	768	766	762	801	917
TOTAL ASSETS	394860	439291	450055	478718	494290	538285	548787

TABLE 71--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	103056	101551	110713	104525	115428	109982	131819
U. S. TREASURY SECURITIES	150953	142099	151103	138145	158088	163430	179669
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	16825	19781	22793	30507	37170	37924	41528
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	60011	67126	75400	82217	91364	98764	108514
OTHER SECURITIES	1440	2021	1616	2730	2399	1855	2479
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	229229	231027	250912	253599	289021	301973	332190
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	500	400	800	1600	2500	3100	7650
OTHER LOANS	283257	296524	308692	332589	347600	371552	394791
FIXED ASSETS	11923	13349	14252	15199	15682	16525	16810
OTHER ASSETS	1585	1093	1194	1300	1596	2102	1884
TOTAL ASSETS	612725	643944	686563	708812	771827	805234	885144

TABLE 71--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	124313	141817	136291	161842	150320	162578
U. S. TREASURY SECURITIES	154483	152213	140555	163166	165142	180954
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	38960	42056	45455	57699	71310	79448
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	119602	128039	138351	155145	176403	196300
OTHER SECURITIES	2706	2386	2508	3014	6228	5304
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	315751	324694	326869	379024	419083	462006
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	20322	38472	48431	44833	41161	59335
OTHER LOANS	434475	448657	469117	482101	520956	559218
FIXED ASSETS	17749	19620	21104	20947	22225	24020
OTHER ASSETS	2578	2310	3328	3903	4669	5434
TOTAL ASSETS	915188	975570	1005140	1092650	1158414	1272591

TABLE 71--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	166907	188793	179972	201574	200595	226993	219563
TIME AND SAVINGS DEPOSITS	128217	137413	148400	156976	169443	179788	196250
DEPOSITS OF U. S. GOVERNMENT	7428	11045	18381	10646	9026	9167	8702
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	43085	49805	50731	50662	56068	60604	59581
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	3067	3226	2822	4144	3229	4771	3772
CERTIFIED AND OFFICER'S CHECKS	1404	1531	1607	1811	1788	2382	2359
TOTAL DEPOSITS	350108	391813	401913	425813	440149	483705	490227
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	3761	4391	4339	5583	6231	5389	6321
TOTAL LIABILITIES	353869	396204	406252	431396	446380	489094	496548
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	2066	2087	2379	2335	2903	3234	3379
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	38925	41000	41424	44987	45007	45957	48860
TOTAL LIABILITIES AND CAPITAL	394860	439291	450055	478718	494290	538285	548787

TABLE 71--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	249703	249730	267312	254619	289882	288251	326053
TIME AND SAVINGS DEPOSITS	215627	234309	253018	275992	294039	322087	345953
DEPOSITS OF U. S. GOVERNMENT	9512	10777	8450	8343	7857	12550	10873
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	69444	75837	81176	88148	91338	92011	103663
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	4333	4343	4442	5505	6684	4468	5383
CERTIFIED AND OFFICER'S CHECKS	3626	3397	3483	3546	4412	3290	4958
TOTAL DEPOSITS	552245	578393	617881	636153	694212	722667	796883
FEDERAL FUNDS PURCHASED	0	0	0	500	500	200	0
ALL OTHER LIABILITIES	6817	8229	9670	9748	11685	12738	15052
TOTAL LIABILITIES	559062	586622	627551	646401	706397	735605	811935
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	3783	3970	4374	4388	5128	5213	5926
RESERVES ON SECURITIES	106	3882	109	94	187	130	100
TOTAL CAPITAL ACCOUNTS	49880	53352	54638	58023	60302	64416	67283
TOTAL LIABILITIES AND CAPITAL	612725	643944	686563	708812	771827	805234	885144

TABLE 71--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	325828	351730	344199	376201	385762	426732
TIME AND SAVINGS DEPOSITS	374707	390990	415843	449885	498132	541108
DEPOSITS OF U. S. GOVERNMENT	10570	13717	15925	20485	21416	16235
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	94892	104099	107393	114292	113718	134914
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	4486	5364	3740	5949	6230	7481
CERTIFIED AND OFFICER'S CHECKS	5610	6668	5552	6133	6390	8645
TOTAL DEPOSITS	816093	872568	892652	972945	1031648	1135115
FEDERAL FUNDS PURCHASED	700	0	600	1300	1450	800
ALL OTHER LIABILITIES	19161	20645	23065	26465	27045	32062
TOTAL LIABILITIES	835954	893213	916317	1000710	1060143	1167977
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	6041	6980	6908	7747	7552	8362
RESERVES ON SECURITIES	93	109	112	134	132	92
TOTAL CAPITAL ACCOUNTS	73100	75268	81803	84059	90587	96160
TOTAL LIABILITIES AND CAPITAL	915188	975570	1005140	1092650	1158414	1272591

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 72

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL COUNTRY BANKS
$5 TO UNDER $10 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	123166	140487	131439	147357	142273	168562	148944
U. S. TREASURY SECURITIES	205225	226249	225543	232552	226340	241761	217776
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	15637	18530	17839	24406	20189	24464	29576
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	73215	76391	83302	87136	93341	99220	108281
OTHER SECURITIES	4049	4818	3731	2868	4061	2972	2646
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	298126	325988	330415	346962	343931	368417	358279
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	331807	351616	378003	400734	428988	461557	501461
FIXED ASSETS	13878	14353	15240	16802	17693	18733	19496
OTHER ASSETS	1677	2138	2106	1802	2125	2183	2168
TOTAL ASSETS	753017	816052	839364	889251	914821	994988	1000772

TABLE 72--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	181990	166050	190315	173375	206000	187047	236831
U. S. TREASURY SECURITIES	237653	222633	231319	227319	254699	256434	275084
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	34202	40034	37334	53784	70447	79257	84878
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	117008	131580	143309	152672	170084	182500	201423
OTHER SECURITIES	4635	2658	3948	4905	3994	4149	4103
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	393498	396905	415910	438680	499224	522340	565488
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	1500	2800	5150	8075	8890	16615	27546
OTHER LOANS	536906	546988	572079	613435	639195	675510	715681
FIXED ASSETS	19942	21484	23228	25300	26660	28146	28986
OTHER ASSETS	2822	2690	2995	3191	4043	5554	6947
TOTAL ASSETS	1102456	1136917	1209677	1262056	1384012	1435212	1581479

TABLE 72--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	211494	258213	216007	266339	240583	286946
U. S. TREASURY SECURITIES	245034	241218	243911	275322	276611	283447
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	77330	79226	83667	99576	128105	134930
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	231096	241369	259491	289602	322837	340611
OTHER SECURITIES	6390	5441	4833	5334	14015	16432
TRADING ACCOUNT SECURITIES	0	0	0	502	0	0
TOTAL SECURITIES	559850	567254	591902	670336	741568	775420
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	49222	64596	60631	78296	76150	99025
OTHER LOANS	765865	806191	819589	865135	908850	986168
FIXED ASSETS	30640	32155	33880	36077	38262	40333
OTHER ASSETS	8546	8997	11060	13268	14344	15037
TOTAL ASSETS	1625617	1737406	1733069	1929451	2019757	2202929

TABLE 72--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	317631	350012	335859	379230	371565	419787	395827
TIME AND SAVINGS DEPOSITS	256042	271499	292112	304715	324638	345041	370830
DEPOSITS OF U. S. GOVERNMENT	16602	17716	31775	17824	17432	14221	16322
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	77131	81631	82163	86878	98294	106464	103300
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	24	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	5733	7440	6070	6097	6779	9657	8733
CERTIFIED AND OFFICER'S CHECKS	3858	4307	5735	3698	4446	5977	4644
TOTAL DEPOSITS	677021	732605	753714	798442	823154	901147	899656
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	6017	8519	10148	9995	10211	9856	12681
TOTAL LIABILITIES	683038	741124	763862	808437	833365	911013	912337
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	4656	4549	5335	5257	5971	6503	6941
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	65323	70379	70167	75557	75485	77472	81494
TOTAL LIABILITIES AND CAPITAL	753017	816052	839364	889251	914821	994988	1000772

TABLE 72--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	447230	438339	462243	451456	505750	507694	575723
TIME AND SAVINGS DEPOSITS	399313	431172	463180	511931	552499	597490	647467
DEPOSITS OF U. S. GOVERNMENT	13521	19389	12200	13411	12227	19941	19196
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	118810	121179	135583	141979	153659	146607	160325
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	12359	7827	13100	12030	16333	11057	17075
CERTIFIED AND OFFICER'S CHECKS	7019	6077	7802	6753	9097	8998	11270
TOTAL DEPOSITS	998252	1023983	1094108	1137560	1249565	1291787	1431056
FEDERAL FUNDS PURCHASED	450	1150	300	950	385	1600	250
ALL OTHER LIABILITIES	12434	14837	14657	15715	23154	25080	27261
TOTAL LIABILITIES	1011136	1039970	1109065	1154225	1273104	1318457	1458567
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	7483	8084	9022	9053	9832	10185	11125
RESERVES ON SECURITIES	512	605	5480	727	94	844	855
TOTAL CAPITAL ACCOUNTS	83837	88863	91590	98778	101076	106560	111787
TOTAL LIABILITIES AND CAPITAL	1102456	1136917	1209677	1262056	1384012	1435212	1581479

TABLE 72--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	568436	612166	579765	638376	627679	711913
TIME AND SAVINGS DEPOSITS	690495	718017	758578	821586	904471	957310
DEPOSITS OF U. S. GOVERNMENT	16562	20578	21755	26982	24395	23959
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	147806	171194	161414	203255	205058	237808
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	15759	15402	8278	12356	13021	19588
CERTIFIED AND OFFICER'S CHECKS	11784	12119	11243	13444	21414	15705
TOTAL DEPOSITS	1450842	1549476	1541033	1715999	1796038	1966283
FEDERAL FUNDS PURCHASED	2400	5700	1550	9693	8650	7600
ALL OTHER LIABILITIES	34298	38793	36930	46712	46681	54472
TOTAL LIABILITIES	1487540	1593969	1579513	1772404	1851369	2028355
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	12353	13977	14152	14793	14839	15921
RESERVES ON SECURITIES	935	1261	1497	1474	1594	1637
TOTAL CAPITAL ACCOUNTS	124789	128199	137907	140780	151955	157016
TOTAL LIABILITIES AND CAPITAL	1625617	1737406	1733069	1929451	2019757	2202929

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 73

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL COUNTRY BANKS
$10 TO UNDER $25 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	297861	311518	311103	332961	342743	390405	339383
U. S. TREASURY SECURITIES	507413	504362	514377	510173	492014	508722	483395
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	25832	33404	34189	46496	46850	45782	51063
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	174485	184459	195863	204399	220153	231064	248711
OTHER SECURITIES	7898	11505	10732	8637	10724	8599	7927
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	715628	733730	755161	769705	769741	794157	791096
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	728232	779733	838696	897318	954839	1011656	1092927
FIXED ASSETS	33810	37089	39187	41897	43433	44171	45822
OTHER ASSETS	4885	4754	5420	5066	5754	5938	6749
TOTAL ASSETS	1754584	1833420	1915378	2000451	2069660	2200555	2224914

TABLE 73--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	398496	374378	412885	370732	440975	398835	496748
U. S. TREASURY SECURITIES	516750	487702	476419	451507	517045	532204	543860
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	53231	65485	55235	89404	97318	121651	116166
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	278737	312421	326034	356233	378961	416728	452219
OTHER SECURITIES	6610	5808	5822	7221	7063	7696	7301
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	855328	871416	863510	904365	1000387	1078279	1119546
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	15150	10500	13200	36954	40104	36204	50154
OTHER LOANS	1153432	1158625	1205381	1232428	1287644	1339529	1465609
FIXED ASSETS	47935	51124	51121	53770	55078	57397	60834
OTHER ASSETS	8332	8264	8599	9839	10132	14107	15131
TOTAL ASSETS	2425442	2474307	2554696	2608088	2834320	2924351	3208022

TABLE 73--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	468894	526927	486287	575723	538910	622824
U. S. TREASURY SECURITIES	495465	485852	473372	514560	545372	543882
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	110432	104707	118249	145247	169103	191233
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	498224	498449	540076	580913	670311	718880
OTHER SECURITIES	8541	8063	8181	9482	16015	26169
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	1112662	1097071	1139878	1250202	1400801	1480164
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	85200	105345	133914	169840	136250	178625
OTHER LOANS	1531609	1603320	1627355	1699189	1804852	1926585
FIXED ASSETS	68107	71520	76620	81303	85338	88380
OTHER ASSETS	19689	21172	29597	30532	34718	36485
TOTAL ASSETS	3286161	3425355	3493651	3806789	4000869	4333063

TABLE 73--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	777921	820934	830548	897634	906262	971967	935947
TIME AND SAVINGS DEPOSITS	542603	567592	605061	616898	661931	685290	729815
DEPOSITS OF U. S. GOVERNMENT	48304	34739	60813	39018	52637	33976	57409
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	174412	181130	189525	201781	195706	242325	232693
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	27642	29631	26510	23934	28082	36676	29022
CERTIFIED AND OFFICER'S CHECKS	10124	10824	11791	11889	13599	16631	14195
TOTAL DEPOSITS	1581006	1644850	1724248	1791154	1858217	1986865	1999081
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	22047	28660	27131	36390	34628	30523	33554
TOTAL LIABILITIES	1603053	1673510	1751379	1827544	1892845	2017388	2032635
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	12934	12835	14831	14799	17382	19389	20106
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	138597	147075	149168	158108	159433	163778	172173
TOTAL LIABILITIES AND CAPITAL	1754584	1833420	1915378	2000451	2069660	2200555	2224914

TABLE 73--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	1036052	1C06372	1037648	1016451	1119777	1121351	1248222
TIME AND SAVINGS DEPOSITS	774388	842285	887964	975055	1032239	1115127	1188532
DEPOSITS OF U. S. GOVERNMENT	32575	53965	29256	24984	31060	38367	34918
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	289452	275722	292823	276128	300949	295135	338339
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	400	451	60
DEPOSITS OF COMMERCIAL BANKS	41348	31739	36063	30607	42259	30638	46220
CERTIFIED AND OFFICER'S CHECKS	17317	17534	15950	15678	21972	18983	24541
TOTAL DEPOSITS	2191132	2227617	2299704	2338903	2548656	2620052	2880832
FEDERAL FUNDS PURCHASED	0	250	2250	1450	2550	1600	4600
ALL OTHER LIABILITIES	35621	38711	39138	42697	48767	54132	61211
TOTAL LIABILITIES	2226753	2266578	2341092	2383050	2599973	2675784	2946643
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	21364	21291	23016	23398	25748	26242	29257
RESERVES ON SECURITIES	2378	2543	2675	2850	319	3150	3477
TOTAL CAPITAL ACCOUNTS	177325	186438	190588	201640	208599	222325	232122
TOTAL LIABILITIES AND CAPITAL	2425442	2474307	2554696	2608088	2834320	2924351	3208022

TABLE 73--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	1251779	1310490	1262955	1373202	1396245	1533520
TIME AND SAVINGS DEPOSITS	1266547	1301633	1381427	1489089	1629062	1735186
DEPOSITS OF U. S. GOVERNMENT	32573	32026	36030	45982	45580	51272
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	309724	320278	332617	380900	375003	423984
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	164	462	659	229	603	386
DEPOSITS OF COMMERCIAL BANKS	35826	52430	38213	47371	41180	59654
CERTIFIED AND OFFICER'S CHECKS	22166	26120	23676	28912	28392	31815
TOTAL DEPOSITS	2918779	3043439	3075577	3365685	3516065	3835827
FEDERAL FUNDS PURCHASED	4725	9490	12570	16858	34284	17063
ALL OTHER LIABILITIES	79628	77597	90221	95693	102292	115690
TOTAL LIABILITIES	3003132	3130526	3178368	3478236	3652641	3968580
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	29774	33758	33675	34722	34367	36834
RESERVES ON SECURITIES	3109	3304	2820	2794	2866	3256
TOTAL CAPITAL ACCOUNTS	250146	257767	278788	291037	310995	324393
TOTAL LIABILITIES AND CAPITAL	3286161	3425355	3493651	3806789	4000869	4333063

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 74

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL COUNTRY BANKS
$25 TO UNDER $50 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	200377	232039	218051	226425	220723	282186	221936
U. S. TREASURY SECURITIES	341398	351697	345561	348879	327330	321995	291197
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	18910	16698	14042	18390	17614	16346	21733
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	114379	120872	134865	144315	150673	160728	175036
OTHER SECURITIES	4614	4670	4564	4128	3731	5271	3921
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	479301	493937	499032	515712	499348	504340	491887
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	604425	646961	679304	744393	764054	827619	865273
FIXED ASSETS	29804	29222	28872	29571	30359	32497	33319
OTHER ASSETS	5402	5804	7050	6740	7549	7251	7609
TOTAL ASSETS	1300399	1391265	1418267	1504451	1504419	1637547	1598291

TABLE 74--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	278179	256813	318043	275269	350365	310855	382224
U. S. TREASURY SECURITIES	313106	296518	291763	283431	325233	318861	336020
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	22027	31280	24496	52107	71130	68517	84555
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	195761	209651	219905	244465	272138	292302	313862
OTHER SECURITIES	5635	6083	6183	5212	6836	6780	6897
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	536529	543532	542347	585215	675337	686450	741334
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	20050	6650	15850	25505	29620	29570	50820
OTHER LOANS	902328	941127	1001974	1015527	1070444	1104805	1208859
FIXED ASSETS	34921	35999	38654	39255	41260	42562	44653
OTHER ASSETS	8175	9264	11844	13784	16860	17976	20224
TOTAL ASSETS	1758155	1793385	1928712	1954555	2183886	2192228	2448114

TABLE 74--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	348394	425106	342021	428221	402242	435988
U. S. TREASURY SECURITIES	298734	302537	302050	333551	343763	341910
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	87007	63321	59708	71250	79495	82751
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	336915	344666	370778	401778	475315	476043
OTHER SECURITIES	7038	7581	7316	7088	11007	12153
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	729694	718105	739852	813667	909580	912857
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	24432	64764	41631	119102	83666	163339
OTHER LOANS	1289040	1356004	1375389	1414728	1464866	1577829
FIXED ASSETS	51895	57681	61720	66897	70996	74364
OTHER ASSETS	23609	26328	31269	31851	34874	33981
TOTAL ASSETS	2467064	2647988	2591882	2874466	2966224	3198358

TABLE 74--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	579949	614692	601749	645849	640018	705685	661082
TIME AND SAVINGS DEPOSITS	373361	395387	427410	449023	462055	479165	510528
DEPOSITS OF U. S. GOVERNMENT	32462	23402	38729	24740	35852	21420	41253
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	123103	155656	141910	168294	145140	185075	149340
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	270	270	270	270	300	475	500
DEPOSITS OF COMMERCIAL BANKS	38051	37666	36200	38984	40858	55781	38950
CERTIFIED AND OFFICER'S CHECKS	8452	9699	11464	8934	9058	12570	10502
TOTAL DEPOSITS	1155648	1236772	1257732	1336094	1333281	1460171	1412155
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	22477	27516	29317	34004	29939	33252	36734
TOTAL LIABILITIES	1178125	1264288	1287049	1370098	1363220	1493423	1448889
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	15554	15979	17624	17268	18985	19616	19471
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	106720	110998	113594	117085	122214	124508	129931
TOTAL LIABILITIES AND CAPITAL	1300399	1391265	1418267	1504451	1504419	1637547	1598291

TABLE 74--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	733509	714052	732887	730345	814378	807892	917670
TIME AND SAVINGS DEPOSITS	552304	619814	672033	736551	780074	842677	920580
DEPOSITS OF U. S. GOVERNMENT	15920	32427	18035	13041	18901	19124	12438
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	192495	171823	227491	194453	256762	208452	245240
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	475	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	60036	37577	52230	42541	59442	45001	59898
CERTIFIED AND OFFICER'S CHECKS	13188	11976	14570	16059	15989	15328	16436
TOTAL DEPOSITS	1567927	1587669	1717246	1732990	1945546	1938474	2172262
FEDERAL FUNDS PURCHASED	0	3200	2000	6000	7100	10750	15850
ALL OTHER LIABILITIES	35333	42681	42897	40316	46252	50210	56865
TOTAL LIABILITIES	1603260	1633550	1762143	1779306	1998898	1999434	2244977
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	20593	20849	22446	22006	22628	22994	24568
RESERVES ON SECURITIES	1016	1148	1313	1491	131	1255	1337
TOTAL CAPITAL ACCOUNTS	134302	138986	144123	153243	162360	169800	178569
TOTAL LIABILITIES AND CAPITAL	1758155	1793385	1928712	1954555	2183886	2192228	2448114

TABLE 74--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	903418	972090	909543	1013698	1010497	1089039
TIME AND SAVINGS DEPOSITS	963347	958439	980880	1053328	1142551	1212002
DEPOSITS OF U. S. GOVERNMENT	15513	18348	23719	28046	25623	36288
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	196202	262724	247700	323092	302832	356671
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	43323	74778	48643	75924	67179	91989
CERTIFIED AND OFFICER'S CHECKS	19761	21291	20633	23863	20841	21396
TOTAL DEPOSITS	2141564	2307670	2231118	2517951	2569523	2807385
FEDERAL FUNDS PURCHASED	25800	25610	29875	14750	28325	14150
ALL OTHER LIABILITIES	84385	84137	86873	87319	102674	102178
TOTAL LIABILITIES	2251749	2417417	2347866	2620020	2700522	2923713
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	24	23	24	23	24	22
RESERVES ON LOANS	24832	28170	28235	28931	28010	29725
RESERVES ON SECURITIES	1327	1668	1619	1722	1523	1287
TOTAL CAPITAL ACCOUNTS	189132	200710	214138	223770	236145	243611
TOTAL LIABILITIES AND CAPITAL	2467064	2647988	2591882	2874466	2966224	3198358

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 75

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL COUNTRY BANKS
$50 TO UNDER $100 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	233516	256128	255966	249994	269048	312336	268949
U. S. TREASURY SECURITIES	416131	400582	403247	402901	400409	388129	351434
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	29919	34903	32849	36820	17888	11837	14113
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	98530	109735	121491	133509	139521	163463	192082
OTHER SECURITIES	4697	4528	4506	4421	4491	3319	4028
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	549277	549748	562093	577651	562309	566748	561657
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	550975	611510	632835	695485	692600	770148	823070
FIXED ASSETS	21146	22412	24633	25635	26063	27394	27815
OTHER ASSETS	6667	8987	7405	7377	8613	7972	8926
TOTAL ASSETS	1331662	1413882	1450083	1519322	1540745	1672751	1676304

TABLE 75--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	356678	302060	381605	336422	419060	393948	492983
U. S. TREASURY SECURITIES	359394	344928	339097	320662	353277	344503	340026
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	12470	17301	19715	43056	43538	43089	74369
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	226195	267777	272101	283034	293723	318678	365845
OTHER SECURITIES	3801	4533	4107	4501	5496	5405	6409
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	601860	634539	635020	651253	696034	711675	786649
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	15700	29350	28850	34520	51902	29082	65713
OTHER LOANS	878759	904613	957903	966372	1040354	1050950	1155739
FIXED ASSETS	29166	30853	32066	33435	37267	38494	50109
OTHER ASSETS	9483	13481	18107	20418	21066	27635	20967
TOTAL ASSETS	1879176	1914896	2053551	2042420	2265683	2251784	2572160

TABLE 75--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	501537	526241	478866	558475	544921	636614
U. S. TREASURY SECURITIES	293977	274407	270940	346006	371542	354836
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	68165	51314	62348	69996	72723	86690
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	396633	403100	448179	530532	577516	631591
OTHER SECURITIES	6855	5366	5708	5675	9696	11463
TRADING ACCOUNT SECURITIES	628	1963	2785	2861	5430	14856
TOTAL SECURITIES	766258	736150	789960	955070	1036907	1099446
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	51707	96289	99215	133529	96993	83352
OTHER LOANS	1211317	1269231	1271492	1343459	1419310	1566253
FIXED ASSETS	58623	63034	65700	68993	75345	75688
OTHER ASSETS	22978	24415	28631	29951	37273	43237
TOTAL ASSETS	2612420	2715360	2733864	3089477	3210749	3504590

TABLE 75--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	610083	640445	637148	674101	669119	723909	703609
TIME AND SAVINGS DEPOSITS	363053	384307	410714	428615	446616	462237	498365
DEPOSITS OF U. S. GOVERNMENT	35844	24448	42001	24312	39460	25028	47487
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	125295	143009	143805	146586	142108	181823	153894
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	220	278	247	494	244	199	395
DEPOSITS OF COMMERCIAL BANKS	50774	62607	56948	70900	70354	92374	68147
CERTIFIED AND OFFICER'S CHECKS	6752	9554	8056	11380	9441	12394	11429
TOTAL DEPOSITS	1192021	1264648	1298919	1356388	1377342	1497964	1483326
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	24663	29300	26359	33573	30848	32252	42497
TOTAL LIABILITIES	1216684	1293948	1325278	1389961	1408190	1530216	1525823
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	7677	9064	9597	11024	11211	14036	15183
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	107301	110870	115208	118337	121344	128509	135298
TOTAL LIABILITIES AND CAPITAL	1331662	1413882	1450083	1519322	1540745	1672751	1676304

TABLE 75--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	773674	753812	782188	759286	869581	820126	937162
TIME AND SAVINGS DEPOSITS	542219	586347	630023	684036	713776	775083	835104
DEPOSITS OF U. S. GOVERNMENT	19067	40431	20882	14853	33176	17809	12738
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	219786	218749	265659	232779	248257	240531	299872
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	511	394	672	361	328	286	70
DEPOSITS OF COMMERCIAL BANKS	107125	84305	117117	105180	137576	119817	175193
CERTIFIED AND OFFICER'S CHECKS	16244	12581	13067	11433	18047	13394	17504
TOTAL DEPOSITS	1678626	1696619	1829608	1807928	2020741	1987046	2277643
FEDERAL FUNDS PURCHASED	11550	3950	3700	10587	7891	8950	32670
ALL OTHER LIABILITIES	33846	44518	47480	42873	50392	58712	56276
TOTAL LIABILITIES	1724022	1745087	1880788	1861388	2079024	2054708	2366589
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	16661	17739	16485	17002	18359	19207	20721
RESERVES ON SECURITIES	388	360	281	141	17	111	70
TOTAL CAPITAL ACCOUNTS	138493	152070	156278	164030	168300	177869	184850
TOTAL LIABILITIES AND CAPITAL	1879176	1914896	2053551	2042420	2265683	2251784	2572160

TABLE 75--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	908823	964222	879983	1021573	1003973	1098766
TIME AND SAVINGS DEPOSITS	896914	895687	908205	957168	1072832	1127586
DEPOSITS OF U. S. GOVERNMENT	13094	17326	26311	31848	32836	31561
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	247244	241312	299982	395234	427382	459816
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	186	14	13	14	137	111
DEPOSITS OF COMMERCIAL BANKS	171476	206703	186026	233934	197058	261334
CERTIFIED AND OFFICER'S CHECKS	20319	17925	17305	18523	24611	22091
TOTAL DEPOSITS	2258056	2343189	2317825	2658294	2758829	3001265
FEDERAL FUNDS PURCHASED	38875	66020	78792	83640	91825	125060
ALL OTHER LIABILITIES	96588	79252	96437	97487	98327	103122
TOTAL LIABILITIES	2393519	2488461	2493054	2839421	2948981	3229447
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	21915	23092	23740	25677	25825	27161
RESERVES ON SECURITIES	707	563	562	1313	1312	1313
TOTAL CAPITAL ACCOUNTS	196279	203244	216508	223066	234631	246669
TOTAL LIABILITIES AND CAPITAL	2612420	2715360	2733864	3089477	3210749	3504590

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 76

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL COUNTRY BANKS
$100 TO UNDER $250 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	338790	323574	336172	338330	331715	401923	350402
U. S. TREASURY SECURITIES	350910	352895	342091	345362	333196	353926	327751
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	4546	9005	7798	8324	8967	8471	17426
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	100962	108189	120642	122876	132063	137603	140507
OTHER SECURITIES	5101	4402	4501	4835	4986	6096	6266
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	461519	474491	475032	481397	479212	506096	491950
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	673062	744705	760803	827064	877486	922791	968510
FIXED ASSETS	23895	24125	23980	24640	30738	31175	31666
OTHER ASSETS	6898	7046	8160	8181	9730	9845	12756
TOTAL ASSETS	1499618	1564936	1596349	1671288	1719914	1863359	1837858

TABLE 76--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	435297	413777	490747	457746	537115	496175	614157
U. S. TREASURY SECURITIES	350043	340530	328329	307441	316732	302646	315464
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	11381	11666	9808	25959	23885	35463	43363
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	153943	175389	181219	184429	208069	201668	217618
OTHER SECURITIES	7265	6223	6159	9723	14605	19899	12339
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	522632	533808	525515	527552	563291	559676	588784
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	20835	5900	8400	15617	29258	16232	24056
OTHER LOANS	1004325	1083591	1125847	1135720	1218165	1205196	1263083
FIXED ASSETS	32631	37651	39199	43024	46763	51892	56401
OTHER ASSETS	11034	12245	12004	14474	14354	20991	22794
TOTAL ASSETS	2015373	2086972	2201712	2194133	2408946	2350162	2569275

TABLE 76--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	574027	616903	572202	696921	582519	702837
U. S. TREASURY SECURITIES	266153	269513	258791	304557	282471	299973
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	38568	34361	35685	41989	52823	53598
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	224659	218692	214579	248317	320319	374177
OTHER SECURITIES	6427	6369	6522	6597	7523	8797
TRADING ACCOUNT SECURITIES	14019	17476	17634	18780	28728	26902
TOTAL SECURITIES	549826	546411	533211	620240	691864	763447
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	51715	48358	65118	90781	56254	111340
OTHER LOANS	1338324	1411040	1443203	1507292	1589566	1687483
FIXED ASSETS	65722	68279	68432	67359	67449	67676
OTHER ASSETS	26472	27506	28284	29720	30277	31153
TOTAL ASSETS	2606086	2718497	2710450	3012313	3017929	3363936

TABLE 76--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	574483	607904	602002	643940	613485	697509	639869
TIME AND SAVINGS DEPOSITS	354972	373348	409279	424308	477268	484025	534336
DEPOSITS OF U. S. GOVERNMENT	46361	35048	61337	36471	56856	39114	59451
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	164866	139233	152899	136255	160032	151910	168830
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	199908	221381	202302	226636	213107	281871	214569
CERTIFIED AND OFFICER'S CHECKS	6264	8266	5722	9360	7291	9837	7862
TOTAL DEPOSITS	1346854	1385180	1433541	1476970	1528039	1664266	1624917
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	29006	50181	29911	55682	46741	49413	50487
TOTAL LIABILITIES	1375860	1435361	1463452	1532652	1574780	1713679	1675404
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	15060	15331	16619	16442	18505	19425	20368
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	108698	114244	116278	122194	126629	130255	142086
TOTAL LIABILITIES AND CAPITAL	1499618	1564936	1596349	1671288	1719914	1863359	1837858

TABLE 76--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	732237	742175	804291	755335	840629	800632	893156
TIME AND SAVINGS DEPOSITS	561240	631946	630900	678535	692452	716509	746103
DEPOSITS OF U. S. GOVERNMENT	32520	53999	29953	21635	29551	20759	15983
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	166229	180218	161304	196515	170212	199869	197546
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	295815	222486	301281	247538	331095	269549	352439
CERTIFIED AND OFFICER'S CHECKS	8192	10117	11360	11053	37998	9241	16806
TOTAL DEPOSITS	1796233	1840941	1939089	1910611	2101937	2016559	2222033
FEDERAL FUNDS PURCHASED	3400	18000	24200	36250	41325	61960	45770
ALL OTHER LIABILITIES	49068	47958	52430	55996	69432	68859	94780
TOTAL LIABILITIES	1848701	1906899	2015719	2002857	2212694	2147378	2362583
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	22011	23414	26449	26795	27434	27475	27900
RESERVES ON SECURITIES	1129	1064	1197	1057	115	924	678
TOTAL CAPITAL ACCOUNTS	144661	156659	159544	164481	168818	175309	178792
TOTAL LIABILITIES AND CAPITAL	2015373	2086972	2201712	2194133	2408946	2350162	2569275

TABLE 76--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	862497	956244	876938	992881	956737	1071071
TIME AND SAVINGS DEPOSITS	774760	778947	802633	883174	957449	1028938
DEPOSITS OF U. S. GOVERNMENT	18787	27534	33409	44432	46103	55859
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	220554	193833	254040	249586	263590	267065
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	304637	359794	313416	413831	335443	451573
CERTIFIED AND OFFICER'S CHECKS	12654	12294	13320	13046	14312	18035
TOTAL DEPOSITS	2193889	2328646	2293756	2596950	2573634	2892541
FEDERAL FUNDS PURCHASED	63508	73924	87967	63812	95251	101016
ALL OTHER LIABILITIES	132678	92945	101800	113260	104822	115733
TOTAL LIABILITIES	2390075	2495515	2483523	2774022	2773707	3109290
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	28552	30984	29015	31524	29754	31393
RESERVES ON SECURITIES	665	189	190	189	189	189
TOTAL CAPITAL ACCOUNTS	186794	191809	197722	206578	214279	223064
TOTAL LIABILITIES AND CAPITAL	2606086	2718497	2710450	3012313	3017929	3363936

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 77

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL NON-MEMBER BANKS
UNDER $5 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	278515	339806	288650	332735	307499	386787	327906
U. S. TREASURY SECURITIES	512145	564283	559068	605775	587626	623549	604320
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	51391	68679	54548	80002	58321	75461	67098
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	141779	151976	161678	175716	190313	202000	222939
OTHER SECURITIES	6434	8002	6335	6420	6384	10980	8339
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	711749	792940	781629	867913	842644	911990	902696
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	721265	759192	835135	888791	962079	1011963	1105413
FIXED ASSETS	24107	26336	26646	29313	30039	31038	33755
OTHER ASSETS	2371	2648	2842	3228	3424	3295	4239
TOTAL ASSETS	1686616	1852243	1880354	2041978	2087364	2269612	2306911

TABLE 77--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	410166	348255	415121	371351	446007	387502	488472
U. S. TREASURY SECURITIES	672511	653287	708106	673421	754317	751607	803287
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	113581	120839	130491	143974	175623	190173	223623
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	248249	275322	306940	329045	367736	407172	441598
OTHER SECURITIES	3796	2976	2722	4605	7836	4705	7540
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	1038137	1052424	1148259	1151045	1305512	1353657	1476048
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	1425	3475	5364	3297	11764	19498
OTHER LOANS	1205579	1208858	1264847	1369990	1431154	1550954	1656534
FIXED ASSETS	35091	38854	40924	44790	45914	49101	51908
OTHER ASSETS	4619	4940	5153	7195	6745	8588	8819
TOTAL ASSETS	2580011	2654756	2877779	2949735	3238629	3361566	3701279

TABLE 77--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	415732	481550	420587	535901	487407	607513
U. S. TREASURY SECURITIES	718023	708120	689079	759307	756654	802752
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	203884	215553	215814	251203	281662	307129
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	499921	540669	591026	646718	728000	788096
OTHER SECURITIES	5965	8180	8172	19925	21299	31936
TRADING ACCOUNT SECURITIES	0	0	0	1000	500	500
TOTAL SECURITIES	1427794	1472522	1504091	1678153	1788115	1930413
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	86199	180883	155095	163755	178835	272283
OTHER LOANS	1814376	1912400	2042045	2150567	2342538	2515010
FIXED ASSETS	59077	66242	73862	76083	83310	89568
OTHER ASSETS	10524	11518	14888	17651	20707	22094
TOTAL ASSETS	3813702	4125115	4210568	4622110	4900912	5436881

TABLE 77--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	707065	798719	750876	873888	851035	957033	908584
TIME AND SAVINGS DEPOSITS	554721	590760	633918	664708	713784	756321	824145
DEPOSITS OF U. S. GOVERNMENT	21441	30455	50820	29470	26634	25562	24259
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	198820	216485	222274	233908	248203	272032	278418
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	139	263	0	0	0
DEPOSITS OF COMMERCIAL BANKS	7598	7219	8062	9604	9289	11352	9476
CERTIFIED AND OFFICER'S CHECKS	6116	6369	6246	7114	8130	11572	8593
TOTAL DEPOSITS	1495761	1650007	1672335	1818955	1857075	2033872	2053475
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	10514	10888	14249	14272	18719	20703	21735
TOTAL LIABILITIES	1506275	1660895	1686584	1833227	1875794	2054575	2075210
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	11451	11548	13313	13356	15743	18250	18680
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	168890	179800	180457	195395	195827	196787	213021
TOTAL LIABILITIES AND CAPITAL	1686616	1852243	1880354	2041978	2087364	2269612	2306911

TABLE 77--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	1061889	1020251	1102278	1070999	1229582	1208790	1387433
TIME AND SAVINGS DEPOSITS	890092	964283	1038915	1136721	1230825	1334038	1441584
DEPOSITS OF U. S. GOVERNMENT	26835	31028	21296	22576	21421	36433	34030
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	315955	336641	397059	384551	401645	404954	432943
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	60	0	25	25	100	0	0
DEPOSITS OF COMMERCIAL BANKS	12187	8701	9999	8176	9220	9051	12891
CERTIFIED AND OFFICER'S CHECKS	12657	11483	14306	11504	18055	15157	21123
TOTAL DEPOSITS	2319675	2372387	2583878	2634552	2910848	3008423	3330004
FEDERAL FUNDS PURCHASED	575	625	1250	1350	2405	2550	2117
ALL OTHER LIABILITIES	23078	26019	31247	29594	35202	37023	46089
TOTAL LIABILITIES	2343328	2399031	2616375	2665496	2948455	3047996	3378210
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	20811	21261	23822	24124	26938	27011	30559
RESERVES ON SECURITIES	2433	2632	9335	0	0	0	0
TOTAL CAPITAL ACCOUNTS	215872	234464	237582	260115	263236	286559	292510
TOTAL LIABILITIES AND CAPITAL	2580011	2654756	2877779	2949735	3238629	3361566	3701279

TABLE 77--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	1355290	1485648	1427632	1585491	1594745	1825868
TIME AND SAVINGS DEPOSITS	1563189	1649907	1756831	1893507	2106630	2278605
DEPOSITS OF U. S. GOVERNMENT	34231	46594	52113	60359	62765	59805
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	414082	461594	454934	523194	531350	620658
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	10705	13185	9397	13966	16997	24115
CERTIFIED AND OFFICER'S CHECKS	19699	25769	19586	28774	28051	33758
TOTAL DEPOSITS	3397196	3682697	3720493	4105291	4340538	4842809
FEDERAL FUNDS PURCHASED	2000	2100	3928	5850	5612	6000
ALL OTHER LIABILITIES	54264	69856	76762	94627	95770	116513
TOTAL LIABILITIES	3453460	3754653	3801183	4205768	4441920	4965322
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	30	33	0	0	0
RESERVES ON LOANS	31659	36171	36966	38814	38196	42148
RESERVES ON SECURITIES	4744	5497	5256	6208	6195	6476
TOTAL CAPITAL ACCOUNTS	323839	328764	367130	371320	414601	422935
TOTAL LIABILITIES AND CAPITAL	3813702	4125115	4210568	4622110	4900912	5436881

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 78

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL NON-MEMBER BANKS
$5 TO UNDER $10 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	165904	181549	166979	185678	180674	216641	185108
U. S. TREASURY SECURITIES	314446	329276	336603	346694	334526	342362	344103
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	18269	27488	22189	27427	25829	30214	29234
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	121596	129713	139212	150676	161677	168640	180735
OTHER SECURITIES	2737	2354	2648	1567	2960	3654	3495
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	457048	488831	500652	526364	524992	544870	557567
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	466080	502025	533301	571153	615065	654930	700703
FIXED ASSETS	15072	16140	17020	17814	18591	19341	21322
OTHER ASSETS	2457	2785	2419	2974	3573	3183	3461
TOTAL ASSETS	1088292	1163842	1198182	1276556	1317066	1408751	1438927

TABLE 78--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	224882	203301	236362	211284	256942	211195	271851
U. S. TREASURY SECURITIES	384075	355220	369168	356032	408488	412284	453248
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	42467	49761	45703	63347	65153	72728	77604
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	201808	226109	242572	258668	279160	299685	319383
OTHER SECURITIES	1326	3317	1410	1924	3622	1737	3457
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	629676	634407	658853	679971	756423	786434	853692
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	5100	6175	5270	4658	6492	12584	19814
OTHER LOANS	755747	764955	819992	873319	911694	971415	1038092
FIXED ASSETS	22669	24512	25630	28174	29569	30428	31149
OTHER ASSETS	3999	4520	5010	5857	6293	7619	9566
TOTAL ASSETS	1599606	1637870	1751117	1803263	1967413	2019675	2224164

TABLE 78--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	231817	274332	245480	293949	283376	321704
U. S. TREASURY SECURITIES	395069	388825	394006	439082	439419	460343
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	73670	78628	87332	92259	114199	127559
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	355619	372225	399468	427767	495911	532610
OTHER SECURITIES	1809	2353	10680	8716	12621	13769
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	826167	842031	891486	967824	1062150	1134281
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	46010	74357	73102	83463	86275	122804
OTHER LOANS	1144954	1207626	1253435	1312178	1397744	1507017
FIXED ASSETS	33564	37737	40647	43905	48079	53071
OTHER ASSETS	11116	10298	13847	14804	15345	17151
TOTAL ASSETS	2293628	2446381	2517997	2716123	2892969	3156028

TABLE 78--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	442287	473465	468733	526384	530711	575310	560120
TIME AND SAVINGS DEPOSITS	372470	392166	419484	435908	469940	489620	539180
DEPOSITS OF U. S. GOVERNMENT	19218	22575	38575	22518	19799	18215	19023
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	124376	136000	129841	137856	140011	157335	147372
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	11464	12170	11998	12692	14380	17225	15095
CERTIFIED AND OFFICER'S CHECKS	4759	5636	5866	6473	6084	9276	7372
TOTAL DEPOSITS	974574	1042012	1074497	1141831	1180925	1266981	1288162
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	9210	11001	11035	13575	13607	16224	17497
TOTAL LIABILITIES	983784	1053013	1085532	1155406	1194532	1283205	1305659
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	10686	10482	12032	12003	13825	15536	16231
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	93822	100347	100618	109147	108709	110010	117037
TOTAL LIABILITIES AND CAPITAL	1088292	1163842	1198182	1276556	1317066	1408751	1438927

TABLE 78--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	635189	620545	655550	636527	720933	709485	796391
TIME AND SAVINGS DEPOSITS	576899	622934	663041	726159	773372	836887	896577
DEPOSITS OF U. S. GOVERNMENT	19668	23558	17046	17262	17486	25972	23984
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	183070	178348	210430	209797	224873	210788	248263
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	2	0	1
DEPOSITS OF COMMERCIAL BANKS	18370	16361	21040	16392	21979	17352	20677
CERTIFIED AND OFFICER'S CHECKS	10533	9251	9721	10443	14027	10839	16911
TOTAL DEPOSITS	1443729	1470997	1576828	1616580	1772672	1811323	2002804
FEDERAL FUNDS PURCHASED	100	0	200	100	184	1227	659
ALL OTHER LIABILITIES	19536	20322	22923	24887	27577	28525	34579
TOTAL LIABILITIES	1463365	1491319	1599951	1641567	1800433	1841075	2038042
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	17331	17341	18276	18892	20253	20376	22038
RESERVES ON SECURITIES	2976	3021	9674	0	0	1	8
TOTAL CAPITAL ACCOUNTS	118910	129210	132890	142804	146727	158224	164084
TOTAL LIABILITIES AND CAPITAL	1599606	1637870	1751117	1803263	1967413	2019675	2224164

TABLE 78--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	793179	852743	827191	897193	926413	1021191
TIME AND SAVINGS DEPOSITS	969200	1011208	1065866	1137808	1262617	1345975
DEPOSITS OF U. S. GOVERNMENT	21834	26066	31831	37490	37614	40175
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	227543	242200	264580	292785	298588	348086
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	5	0	0	0
DEPOSITS OF COMMERCIAL BANKS	17893	30708	23019	23038	20835	27700
CERTIFIED AND OFFICER'S CHECKS	14661	18434	15254	19822	18026	21908
TOTAL DEPOSITS	2044310	2181359	2227746	2408136	2564093	2805035
FEDERAL FUNDS PURCHASED	2009	1183	3250	3040	1100	3000
ALL OTHER LIABILITIES	42788	50355	53688	64273	67105	76060
TOTAL LIABILITIES	2089107	2232897	2284684	2475449	2632298	2884095
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	2	3	2	3
RESERVES ON LOANS	22406	24934	25334	25879	26364	27470
RESERVES ON SECURITIES	3664	4238	4005	3382	3495	4176
TOTAL CAPITAL ACCOUNTS	178451	184312	203972	211410	230810	240284
TOTAL LIABILITIES AND CAPITAL	2293628	2446381	2517997	2716123	2892969	3156028

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 79

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL NON-MEMBER BANKS
$10 TO UNDER $25 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	184593	211531	192085	200256	204764	251495	207821
U. S. TREASURY SECURITIES	456752	437971	478710	446625	453864	447803	452110
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	13048	15434	17349	14348	14891	16068	20257
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	131279	137548	150223	164236	176795	187801	206501
OTHER SECURITIES	5256	6412	5830	5881	7575	6394	7055
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	606335	597365	652112	631090	653125	658056	685923
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	547139	592381	618829	672604	719640	774054	812527
FIXED ASSETS	24772	25654	26114	26904	26986	27617	28476
OTHER ASSETS	3691	3738	4592	4792	5011	4780	5913
TOTAL ASSETS	1353482	1415235	1476383	1521298	1594635	1699944	1720403

TABLE 79--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	267595	235213	278737	250146	303677	263482	354408
U. S. TREASURY SECURITIES	453852	459268	449093	460602	494446	519406	526390
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	27764	38832	28226	52523	65823	88126	91180
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	222951	253582	265743	282708	299249	331026	358037
OTHER SECURITIES	2652	3341	2664	5475	2637	3942	3692
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	707219	755023	745726	801308	862155	942500	979299
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	3810	5760	5610	17050	11048	20769	24737
OTHER LOANS	880463	892402	934885	979339	1049361	1105276	1228767
FIXED ASSETS	29053	30268	31153	32933	33965	35019	36748
OTHER ASSETS	5791	7242	8081	10112	11031	13354	13811
TOTAL ASSETS	1866167	1925908	2004192	2091388	2271237	2380400	2637770

TABLE 79--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	331367	359781	302638	364098	311559	386458
U. S. TREASURY SECURITIES	474107	481387	477398	531767	533774	564345
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	96515	90924	92217	101809	141242	134074
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	406409	414234	455547	495862	595738	628216
OTHER SECURITIES	2671	2403	2852	2723	9805	7507
TRADING ACCOUNT SECURITIES	0	100	0	0	0	1609
TOTAL SECURITIES	979702	989048	1028014	1132161	1280559	1335751
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	55530	58427	74850	118868	110691	141273
OTHER LOANS	1289492	1370926	1399610	1451190	1537510	1686208
FIXED ASSETS	41391	44426	48604	54178	57446	62742
OTHER ASSETS	16575	18484	25417	26774	32557	35445
TOTAL ASSETS	2714057	2841092	2879133	3147269	3330322	3647877

TABLE 79--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	605191	633159	645009	670478	684197	732173	707935
TIME AND SAVINGS DEPOSITS	415287	437093	467113	486193	519957	540343	580879
DEPOSITS OF U. S. GOVERNMENT	28611	23487	40398	26340	32363	21931	33916
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	143591	144262	147711	144900	158542	189724	176220
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	25149	29592	26263	31083	33647	40721	37931
CERTIFIED AND OFFICER'S CHECKS	8929	9569	9285	9580	11929	13628	13355
TOTAL DEPOSITS	1226758	1277162	1335779	1368574	1440635	1538520	1550236
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	13832	18291	18242	22341	21561	24689	25388
TOTAL LIABILITIES	1240590	1295453	1354021	1390915	1462196	1563209	1575624
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	11177	10922	12724	12498	14652	15828	16576
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	101715	108860	109638	117885	117787	120907	128203
TOTAL LIABILITIES AND CAPITAL	1353482	1415235	1476383	1521298	1594635	1699944	1720403

TABLE 79--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	784808	775518	806029	797635	894584	892091	1007388
TIME AND SAVINGS DEPOSITS	627538	668297	707247	779351	837157	914967	988054
DEPOSITS OF U. S. GOVERNMENT	21334	35083	21094	19234	21245	25661	24121
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	198314	197953	210730	216083	225366	238280	264736
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	44682	44000	51711	46806	55737	52809	71438
CERTIFIED AND OFFICER'S CHECKS	14653	15405	14307	18764	19319	18941	24645
TOTAL DEPOSITS	1691329	1736256	1811118	1877873	2053408	2142749	2380382
FEDERAL FUNDS PURCHASED	0	1500	0	3500	900	2030	4225
ALL OTHER LIABILITIES	26012	28490	30518	35637	37133	40899	49076
TOTAL LIABILITIES	1717341	1766246	1841636	1917010	2091441	2185678	2433683
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	18368	18360	18866	18850	20924	21561	24050
RESERVES ON SECURITIES	2787	2746	3147	0	0	0	0
TOTAL CAPITAL ACCOUNTS	130458	141302	143690	155528	158872	173161	180037
TOTAL LIABILITIES AND CAPITAL	1866167	1925908	2004192	2091388	2271237	2380400	2637770

TABLE 79--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	1017981	1073976	1041954	1120646	1136917	1251777
TIME AND SAVINGS DEPOSITS	1043440	1069943	1116543	1201393	1355873	1440011
DEPOSITS OF U. S. GOVERNMENT	23229	22820	29547	36444	31626	39000
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	267571	282248	274213	337576	343853	408106
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	52934	58744	50786	64978	55193	76115
CERTIFIED AND OFFICER'S CHECKS	25312	24243	24211	29685	30325	31569
TOTAL DEPOSITS	2430467	2531974	2537254	2790722	2953787	3246578
FEDERAL FUNDS PURCHASED	1720	8450	7161	4350	6779	6899
ALL OTHER LIABILITIES	56801	64614	78209	85180	85554	91165
TOTAL LIABILITIES	2488988	2605038	2622624	2880252	3046120	3344642
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	23984	27241	27827	28966	28629	31236
RESERVES ON SECURITIES	3471	4114	3638	3703	3461	4449
TOTAL CAPITAL ACCOUNTS	197614	204699	225044	234348	252112	267550
TOTAL LIABILITIES AND CAPITAL	2714057	2841092	2879133	3147269	3330322	3647877

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 80

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL NON-MEMBER BANKS
$25 TO UNDER $50 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	35437	39954	33976	32327	34076	44543	35577
U. S. TREASURY SECURITIES	99694	103414	96434	110782	111522	116638	106115
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	4716	4452	4652	4225	5025	5275	5530
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	42767	41310	41098	42972	42580	46977	53978
OTHER SECURITIES	134	104	216	291	90	287	637
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	147311	149280	142400	158270	159217	169177	166260
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	155159	164125	169006	175785	186123	198868	210397
FIXED ASSETS	6198	6567	7477	7829	8348	8421	8530
OTHER ASSETS	2278	2005	2245	2047	2333	2922	2870
TOTAL ASSETS	341667	357479	350452	372033	385072	418656	418104

TABLE 80--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	53650	42960	56412	45723	57974	45995	74058
U. S. TREASURY SECURITIES	107740	97992	105873	102359	118966	116554	131560
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	5630	6329	4629	8131	9349	9450	12200
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	55462	67975	72492	92431	88174	110099	117630
OTHER SECURITIES	87	314	300	318	315	303	291
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	168919	172610	183294	203239	216804	236406	261681
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	6500	2000	5100	3850	11550	800	11500
OTHER LOANS	226146	225659	236905	236556	259613	272235	291457
FIXED ASSETS	9039	9471	9350	9237	9610	9406	9433
OTHER ASSETS	2723	3003	2942	3282	3435	4275	4327
TOTAL ASSETS	461347	455703	494003	501887	558986	569117	652456

TABLE 80--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	53288	77874	63523	82648	56655	91741
U. S. TREASURY SECURITIES	119220	122441	113401	136538	141976	139451
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	9703	13054	29383	26131	31303	31112
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	134698	131875	126742	126146	163440	166345
OTHER SECURITIES	1891	1369	638	1119	2567	7014
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0
TOTAL SECURITIES	265512	268739	270164	289934	339286	343932
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	11300	22750	10900	42400	17400	38050
OTHER LOANS	302695	328118	328229	345085	354200	395523
FIXED ASSETS	9685	10503	11404	12601	13186	13181
OTHER ASSETS	5870	5988	7245	8215	9360	8552
TOTAL ASSETS	648350	713972	691465	780883	790087	890979

TABLE 80--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	159695	163722	154810	166067	171210	184578	176646
TIME AND SAVINGS DEPOSITS	100032	104853	107483	109652	116728	120352	126989
DEPOSITS OF U. S. GOVERNMENT	7752	5386	9361	5067	7823	4725	9819
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	33479	39177	34488	43421	40931	56555	49996
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	2253	3040	2130	3700	3606	4407	3386
CERTIFIED AND OFFICER'S CHECKS	2670	2654	2952	2854	2723	3902	4117
TOTAL DEPOSITS	305881	318832	311224	330761	343021	374519	370953
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	6226	7287	6816	7836	7104	7946	8408
TOTAL LIABILITIES	312107	326119	318040	338597	350125	382465	379361
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	4515	4764	4762	4913	5571	5900	6295
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	25045	26596	27650	28523	29376	30291	32448
TOTAL LIABILITIES AND CAPITAL	341667	357479	350452	372033	385072	418656	418104

TABLE 80--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	193177	187918	191149	192458	211518	218149	243237
TIME AND SAVINGS DEPOSITS	137650	156222	164926	186835	199071	216243	226428
DEPOSITS OF U. S. GOVERNMENT	4212	6908	3676	2544	4102	4491	3437
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	68535	47327	72454	57082	75464	58671	100885
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	4914	3487	6246	3517	7056	4020	5699
CERTIFIED AND OFFICER'S CHECKS	4060	3883	3411	4298	5074	4329	5489
TOTAL DEPOSITS	412548	405745	441862	446734	502285	505903	585175
FEDERAL FUNDS PURCHASED	250	0	0	1000	0	2000	3500
ALL OTHER LIABILITIES	8759	9138	9874	10021	11229	13043	13693
TOTAL LIABILITIES	421557	414883	451736	457755	513514	520946	602368
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	6625	5947	6277	6307	6605	6690	6782
RESERVES ON SECURITIES	588	619	616	0	0	0	0
TOTAL CAPITAL ACCOUNTS	33165	34873	35990	37825	38867	41481	43306
TOTAL LIABILITIES AND CAPITAL	461347	455703	494003	501887	558986	569117	652456

TABLE 80--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	243819	267458	258777	275432	280199	302865
TIME AND SAVINGS DEPOSITS	241784	245980	258322	283000	314470	327658
DEPOSITS OF U. S. GOVERNMENT	3975	5166	5330	8714	7307	11500
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	75887	105543	73491	113401	79073	131560
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	5950	9415	7513	8764	5809	13143
CERTIFIED AND OFFICER'S CHECKS	4626	6538	6560	6477	8479	8825
TOTAL DEPOSITS	576041	640100	609993	695788	695337	795551
FEDERAL FUNDS PURCHASED	1800	1650	1350	1525	5300	2250
ALL OTHER LIABILITIES	17031	15262	18384	19179	20812	22130
TOTAL LIABILITIES	594872	657012	629727	716492	721449	819931
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	6760	7724	7646	7742	7875	7851
RESERVES ON SECURITIES	348	550	427	850	0	443
TOTAL CAPITAL ACCOUNTS	46370	48686	53665	55799	60763	62754
TOTAL LIABILITIES AND CAPITAL	648350	713972	691465	780883	790087	890979

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

TABLE 81

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL NON-MEMBER BANKS
$50 TO UNDER $100 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	56814	40392	41421	40527	53626	56598	49989
U. S. TREASURY SECURITIES	75840	86033	95754	105540	93505	101061	96991
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	3416	5042	4425	6230	3628	2576	3675
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	19748	21075	22105	21481	21984	23882	26268
OTHER SECURITIES	185	180	20	20	190	190	250
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	99189	112330	122304	133271	119307	127709	127184
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	114353	124991	123319	138814	145033	156017	163290
FIXED ASSETS	4056	4622	4708	4743	4624	4364	4313
OTHER ASSETS	1444	1328	1986	2249	2945	3067	3482
TOTAL ASSETS	272440	278621	289313	313374	321907	345679	344583

TABLE 81

CALL REPORT DATA, 1962 THROUGH 1971
SIXTH FEDERAL RESERVE DISTRICT
ALL NON-MEMBER BANKS
$50 TO UNDER $100 MILLION IN DEPOSITS AS OF JUNE, 1962

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
CASH AND DUE FROM BANKS	56814	40392	41421	40527	53626	56598	49989
U. S. TREASURY SECURITIES	75840	86033	95754	105540	93505	101061	96991
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	3416	5042	4425	6230	3628	2576	3675
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	19748	21075	22105	21481	21984	23882	26268
OTHER SECURITIES	185	180	20	20	190	190	250
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	99189	112330	122304	133271	119307	127709	127184
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	0	0	0	0	0	0	0
OTHER LOANS	114353	124991	123319	138814	145033	156017	163290
FIXED ASSETS	4056	4622	4708	4743	4624	4364	4313
OTHER ASSETS	1444	1328	1986	2249	2945	3067	3482
TOTAL ASSETS	272440	278621	289313	313374	321907	345679	344583

TABLE 81--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
CASH AND DUE FROM BANKS	61591	57495	61150	60961	78302	63146	89336
U. S. TREASURY SECURITIES	100402	94485	97575	102121	111956	107909	107904
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	2725	3087	1499	8005	11864	11133	13619
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	37562	44338	56429	59326	65013	69112	85023
OTHER SECURITIES	195	33	335	392	416	225	229
TRADING ACCOUNT SECURITIES	0	0	0	0	0	0	0
TOTAL SECURITIES	140884	141943	155838	169844	189249	188379	206775
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	9200	4400	1500	815	0	7900	2700
OTHER LOANS	166378	184095	195606	201511	218215	219232	236039
FIXED ASSETS	4190	4438	4577	4785	4906	5126	6364
OTHER ASSETS	4590	5155	5498	4788	4516	6358	8725
TOTAL ASSETS	384108	397526	424169	442704	495188	490151	549939

TABLE 81--CONTINUED

ASSETS (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
CASH AND DUE FROM BANKS	67949	85244	76513	86211	76611	90955
U. S. TREASURY SECURITIES	87493	76629	85755	95120	83685	99508
SECURITIES OF OTHER U. S. GOV'T. AGENCIES AND CORPORATIONS	8003	13830	9421	25177	36659	20383
OBLIGATIONS OF STATES AND POLITICAL SUBDIVISIONS	92640	94471	98867	108771	152450	164652
OTHER SECURITIES	834	270	296	312	338	3384
TRADING ACCOUNT SECURITIES	14253	9670	771	4672	4872	1335
TOTAL SECURITIES	203223	194870	195110	234052	278004	289262
FEDERAL FUNDS SOLD AND SECURITIES PURCHASED	11675	17325	10755	35058	18950	19750
OTHER LOANS	249879	271089	274848	297186	312439	357576
FIXED ASSETS	9588	10514	11015	11335	11758	12289
OTHER ASSETS	9561	15239	20476	22022	22041	19212
TOTAL ASSETS	551875	594281	588717	685864	719803	789044

TABLE 81--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-62	12-62	6-63	12-63	6-64	12-64	6-65
DEMAND DEPOSITS	97182	106641	106720	111166	105847	115191	111152
TIME AND SAVINGS DEPOSITS	55239	58202	64656	65676	68529	72084	78326
DEPOSITS OF U. S. GOVERNMENT	6196	4269	6564	3507	6386	3609	7726
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	37277	31522	34089	46398	46334	49187	49723
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	43924	42032	37205	43543	47599	55576	46148
CERTIFIED AND OFFICER'S CHECKS	2407	5168	1293	1690	1994	2670	1827
TOTAL DEPOSITS	242225	247834	250527	271980	276689	298317	294902
FEDERAL FUNDS PURCHASED	0	0	0	0	0	0	0
ALL OTHER LIABILITIES	5421	5393	11480	13461	15805	16946	17597
TOTAL LIABILITIES	247646	253227	262007	285441	292494	315263	312499
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	2179	2154	2636	2580	2997	3052	2950
RESERVES ON SECURITIES	0	0	0	0	0	0	0
TOTAL CAPITAL ACCOUNTS	22615	23240	24670	25353	26416	27354	29134
TOTAL LIABILITIES AND CAPITAL	272440	278621	289313	313374	321907	345679	344583

TABLE 81--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 12-65	6-66	12-66	6-67	12-67	6-68	12-68
DEMAND DEPOSITS	129734	124806	131786	134049	152072	148618	166922
TIME AND SAVINGS DEPOSITS	77540	81803	88623	95978	101455	113859	132357
DEPOSITS OF U. S. GOVERNMENT	4100	6267	3487	2903	3018	4198	2624
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	56505	77192	80569	92226	98910	93470	89631
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	63438	50149	58355	55526	69812	56296	78677
CERTIFIED AND OFFICER'S CHECKS	2806	2032	2599	2417	3648	3264	4124
TOTAL DEPOSITS	334123	342249	365419	383099	428915	419715	474335
FEDERAL FUNDS PURCHASED	0	1500	575	10282	15365	16040	15948
ALL OTHER LIABILITIES	17151	18307	20441	8716	9628	10956	13197
TOTAL LIABILITIES	351274	362056	386435	402097	453908	446711	503480
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0	0
RESERVES ON LOANS	3279	3322	3917	3747	3953	3824	4560
RESERVES ON SECURITIES	50	50	50	0	0	0	0
TOTAL CAPITAL ACCOUNTS	29555	32148	33817	36860	37327	39616	41899
TOTAL LIABILITIES AND CAPITAL	384108	397526	424169	442704	495188	490151	549939

TABLE 81--CONTINUED

LIABILITIES AND CAPITAL (IN THOUSANDS OF DOLLARS)	DATE 6-69	12-69	6-70	12-70	6-71	12-71
DEMAND DEPOSITS	160609	177353	167553	194238	191183	217212
TIME AND SAVINGS DEPOSITS	140029	140799	138044	157543	191324	194931
DEPOSITS OF U. S. GOVERNMENT	4501	5234	5678	6649	5278	8102
DEPOSITS OF STATES AND POLITICAL SUBDIVISIONS	100175	95612	98288	136431	128475	135834
DEPOSITS OF FOREIGN GOV'TS. AND OFFICIAL INSTITUTIONS	0	0	0	0	0	0
DEPOSITS OF COMMERCIAL BANKS	57147	74405	63559	77274	75652	93112
CERTIFIED AND OFFICER'S CHECKS	5363	5200	5314	4020	3468	4551
TOTAL DEPOSITS	467824	498603	478436	576155	595380	653742
FEDERAL FUNDS PURCHASED	16543	20302	26418	23520	17433	44535
ALL OTHER LIABILITIES	16931	22290	27091	28221	45425	27696
TOTAL LIABILITIES	501298	540695	531945	627896	658238	725973
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES	0	0	0	0	0	0
RESERVES ON LOANS	4458	5589	5574	5347	5007	5339
RESERVES ON SECURITIES	50	50	50	50	50	50
TOTAL CAPITAL ACCOUNTS	46069	47947	51148	52571	56508	57682
TOTAL LIABILITIES AND CAPITAL	551875	594281	588717	685864	719803	789044

SOURCE: DEVELOPED FROM FEDERAL RESERVE SYSTEM MAGNETIC TAPE FILE OF "CALL REPORTS OF CONDITION," 1973.

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