

PERSONAL LIQUID SAVINGS IN THE
SEVENTH FEDERAL RESERVE DISTRICT

By

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AN ABSTRACT

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ABSTRACT

This study is based on a statistical analysis of personal liquid savings in the forms of share capital in savings and loan associations, savings deposits, and certificates of deposit in commercial banks, postal savings, and U. S. Savings Bonds in the Federal Reserve District of Chicago. Share capital and savings deposits are particularly close substitutes as savings media for individuals. Per capita stocks and net flows of personal liquid savings are far from uniform in the District metropolitan areas and within geographic areas of Greater Chicago. In some areas share capital is of minor importance, but in other areas net additions to share capital account for most or all of the growth of savings in insured institutions.

Variables may not be satisfactorily identified to explain the distribution of savings stocks; however, additions to savings balances relate to interest rewards and the availability of savings institutions. Both the inflow of savings deposits and the rate of growth of savings deposits in District and Chicago areas relate to the interest earnings of savings deposits. There is also a significant tendency for savings deposit withdrawals to be high where share capital is growing most rapidly. However, withdrawals of both share capital and savings deposits relate very strongly

with their respective inflows. There appear to be sharp differences in the turnover of liquid savings in District areas.

Measures of the relative competitive position of banks and savings and loan associations clearly indicate that banks are not successful competitors in areas where they pay relatively low rates of interest on savings. Of particular interest is the fact that the level of area savings in insured banks and savings and loan associations relates to the weighted average interest rate paid on insured savings. By increasing interest rates, banks and savings and loan associations not only compete with each other, but they may enlarge their share of the total savings of individuals. In addition, interest rewards are likely to be highest in areas where there is the greatest number of insured savings institutions.

No suggestion is made in this study that total financial saving is influenced by interest rewards, but the allocation of savings appears to be sensitive to relative interest offers. The relationship, however, is far from perfect. Postal savings appear to be most popular in areas where bank services are inadequate, but the growth of credit unions relates to a rapid growth in their potential membership. Convenience appears to be a major appeal of U. S. Savings Bonds.

The competitive strength of savings and loan associations is based upon a combination of advantages. Savings and loan associations are legally able to offer passbook accounts to more types of savers than banks, although their range of legal investments is far

more limited. Nevertheless, savings and loan associations have significantly higher earnings than banks and they pay considerably higher rates of return to savers.

Savings and loan associations have a clear net earnings advantage over banks because they may make tax-free additions to "capital". In addition, they may hold a virtually unlimited portion of their assets as earnings assets, the bulk of which may be illiquid mortgages. A liberal line of credit from the paternalistic Federal Home Loan Banks removes much of the risk of their illiquid asset structure. Differences in regulations affecting banks and savings and loan associations account for much of the relative competitive strength of savings and loan associations.

Shifts of savings between various liquid investments affect the overall availability of credit. For instance, a shift of funds from savings deposits to share capital increases the supply of loanable funds without any increase in the public's willingness to save or sacrifice liquidity. Conventional measures of changes in the liquidity of the banking system are not adequate indicators of changes in the overall availability of credit. Monetary actions based upon these indexes may interfere with the achievement of policy goals. This problem may be expected to grow in seriousness as money becomes a decreasing share of the nation's stock of liquidity.

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CHAPTER I

SCOPE AND METHOD OF ANALYSIS

The general purpose of this study is to analyze the current stocks and recent growth of personal liquid savings. This study considers personal liquid savings in the forms of savings deposits and certificates of deposit in commercial banks, share capital in savings and loan associations, share holdings in credit unions, postal savings, and U. S. Savings Bonds.¹ Both a description of stocks and flows of savings and an identification of factors which influence the observed level and growth of savings are included within the scope of the analysis.

Economists have been increasingly interested in the growth of personal liquid savings and several excellent statistical studies on saving have been published recently.² These studies which describe saving in the entire United States have illustrated the comparative growth of savings institutions, and have suggested variables which account for the growth in total personal savings.

¹The term saving in this study, unless otherwise defined, implies an addition to one or more of the types of savings balances listed above.

²Irwin Friend and Vito Natrella, Individuals' Saving (New York: John Wiley & Sons, 1954); Raymond William Goldsmith, A Study of Saving in the United States (3 vols.; Princeton: Princeton University Press, 1955); and Raymond William Goldsmith, Financial Intermediaries in the American Economy Since 1900 (Princeton: Princeton University Press, 1958).

Previous studies of personal saving in general, however, have been descriptive rather than analytical, and the analytical portions have been confined to the study of the variables which influence total saving rather than to the variables which affect saving in any single type of savings institution. Analysis of variables which influence national rates of saving is very difficult because of the problems of establishing reliable relationships in long time series.¹ An additional limitation of national savings data is the fact that there are no accurate estimates of prevailing interest rates paid by savings institutions across the nation.

This study generally does not describe national saving trends, but the emphasis is upon a description and analysis of metropolitan area savings stocks and trends in saving. It appears that there are very substantial interarea differences in savings stocks and flows which are not evident in a study of national personal savings. This study also attempts to identify variables which influence the form of current savings stocks or the relative growth of personal savings. The analytical technique used is an identification of variables which relate to the distribution of savings stocks at a given time or trends in the growth of savings over short periods of time in several geographic areas. This technique avoids some of the problems of analysis of long time series and it allows relationships to be expressed

¹"It is difficult to make a meaningful test of significance for a measure between related time series. . . effect is to increase the average size of regression and correlation coefficients between time series which are fundamentally unrelated.", William A. Spurr, Lester S. Kellogg, and John H. Smith, Business and Economic Statistics, (Homewood, Illinois: Richard D. Irwin, Inc., 1954) pp. 494-95.

• The first step in the process of creating a new product is to identify a market need. This can be done through market research, which involves gathering information about the target market and its needs. Once a market need has been identified, the next step is to develop a product concept. This involves creating a detailed description of the product, including its features, benefits, and target market. The product concept is then used to develop a business plan, which outlines the company's strategy for producing and marketing the product. The business plan is then used to secure funding from investors or lenders. Once funding has been secured, the next step is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

• The second step in the process of creating a new product is to develop a business plan. This involves creating a detailed description of the product, including its features, benefits, and target market. The business plan is then used to secure funding from investors or lenders. Once funding has been secured, the next step is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

• The third step in the process of creating a new product is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

• The fourth step in the process of creating a new product is to produce and market the final product. This involves creating a detailed description of the product, including its features, benefits, and target market. The business plan is then used to secure funding from investors or lenders. Once funding has been secured, the next step is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

• The fifth step in the process of creating a new product is to evaluate the success of the product. This involves creating a detailed description of the product, including its features, benefits, and target market. The business plan is then used to secure funding from investors or lenders. Once funding has been secured, the next step is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

• The sixth step in the process of creating a new product is to evaluate the success of the product. This involves creating a detailed description of the product, including its features, benefits, and target market. The business plan is then used to secure funding from investors or lenders. Once funding has been secured, the next step is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

• The seventh step in the process of creating a new product is to evaluate the success of the product. This involves creating a detailed description of the product, including its features, benefits, and target market. The business plan is then used to secure funding from investors or lenders. Once funding has been secured, the next step is to develop a prototype of the product. This involves creating a small-scale version of the product that can be used to test the market and gather feedback. The prototype is then used to refine the product concept and develop a final product. The final product is then produced and marketed to the target market. The process of creating a new product is a complex one, but it is essential for any company that wants to succeed in the marketplace.

with a greater degree of statistical confidence.¹ The 32 metropolitan areas of the Federal Reserve District of Chicago are used as the geographic basis for most of the analyses performed.

In general terms, this study illustrates that personal liquid savings are very unevenly distributed among geographic areas and that the rate of accumulation of personal liquid savings is far from uniform in all areas. A fairly detailed statistical analysis is made to determine if variables may be identified which partially explain the distribution of savings and the rate of saving in commercial banks, savings and loan associations, credit unions, postal savings, and U. S. Savings Bonds. An attempt has also been made to describe some basic competitive strengths of the various types of personal liquid savings that are not identifiable statistically. Finally, this study suggests the economic significance of the saving trends observed.

Chapters II and III contain the bulk of the statistical findings of the study. Both of these chapters stress the competitive struggle of savings and loan associations and commercial banks. It is demonstrated that much of the competitive strength of savings and loan associations is explained by the relatively high interest rates they pay on savings. Chapter IV analyzes the reasons why savings and loan associations pay high returns to savers. In addition, an attempt is made to identify other competitive advantages of savings and loan associations.

¹The probable existence of serial correlation in time series analysis increases the standard error of statistical estimates. W. Allen Wallis and Harry V. Roberts, Statistics A New Approach, (Glencoe, Illinois: The Free Press, 1956), p. 562.

Chapters V and VI are relatively short chapters dealing with postal savings, certificates of deposit, uninsured share capital, and credit union shareholdings. Chapter VII briefly considers sales of U. S. Savings Bonds. Chapter VIII indicates the significance of some of the observed trends in savings noted in the preceding chapters and illustrates the effects of shifts of savings between savings forms upon the total supply of loanable funds. Some of the problems that competing financial institutions create for monetary authorities are also discussed.

The selection of the types of savings included in this study is open to possible criticism. The study covers only savings institutions in the Federal Reserve District of Chicago. Mutual savings banks have been excluded because of their insignificance in the Chicago Federal Reserve District. Due to the inavailability of data, there is no attempt to include savings of individuals in the form of idle commercial bank demand deposits.¹ It does appear, however, that there is some justification for excluding personal holdings of corporation stocks and bonds and similar investments. Such investments are

¹The Federal Reserve System makes annual demand deposit ownership surveys, but the sample is not designed on a metropolitan area basis. A deposit ownership survey was not conducted in 1956, and a radically different sampling technique was used in 1957. Therefore, it would not be possible to establish trends in individual holdings of demand deposits during the years covered by this study, 1955-1957, for the District metropolitan areas even if there were a large number of banks in each area included in the survey. There is the additional problem of deciding what portion of individuals' demand deposits represents "savings" and what portion is intended for current transactions. The Federal Reserve Bank of Chicago has made a detailed sample study of demand deposit ownership in a single bank. Appendix A indicates the possible interaction between demand and savings deposit balances indicated in this study.

subject to the risk of substantial loss if liquidated in an unfavorable market. Investments of this nature, therefore, should be excluded from personal liquid savings.¹

Geographic Areas of Analysis

This study concentrates on an analysis of stocks and flows of savings in the 32 metropolitan areas of the Federal Reserve District of Chicago.² A metropolitan area is defined as a city and suburban area with 50,000 or more inhabitants. Metropolitan areas appear to be the most useful geographic or economic areas for the comparison of savings stocks and flows. Intercity or interstate comparisons are limited by the arbitrary nature of political boundaries. In the case of analysis of savings by states, it also would be extremely difficult, if not impossible, to establish data on prevailing interest rates paid or promotional expenditures of savings institutions within an entire state. Federal Reserve metropolitan areas include economically significant portions of a metropolitan population cluster without rigidly following major political boundaries.³ A comparison of the experience of individual banks or other financial institutions is complicated by such intangibles as character of management, desirability of location, and reputation. These factors tend to cancel out within areas in an interarea comparison of savings institu-

¹Liquid in this case is assumed to mean liquidity similar to that of money.

²Table 26 in Appendix D lists the District metropolitan areas.

³U. S. Census metropolitan areas generally use county lines as boundaries. They often fail to include significant satellite communities.

tions.

The Chicago Federal Reserve District is certainly not representative of the entire United States. The District, however, is wealthy and diversified in industry and agriculture. It includes the major parts of Michigan, Indiana, Illinois, Wisconsin, and Iowa. It is likely that factors which strongly influence the level of District saving would also tend to influence saving in other geographic areas of the United States. In connection with this argument it should be mentioned that this study has not revealed any obvious tendency for the economic base of a community to influence the level or trend of institutional savings in the area.

Following the analyses of savings deposits in commercial banks and share capital in savings and loan associations in metropolitan areas there is a short discussion of stocks and flows of savings deposits and share capital within the metropolitan area of Chicago. The purpose of this section is to investigate whether or not the same forces which influence the competitive position of banks and savings and loan associations within entire metropolitan areas are useful in analyzing city sectors and suburbs within a major metropolitan area. Data on Chicago savings is excellent for this type of analysis because of the size of the city and the fact that there are no branches of banks or savings and loan associations within Greater Chicago.

Savings Deposits and Share Capital

Before beginning the statistical comparison of share capital and savings deposit stocks and flows in District metropolitan areas,

it is important to establish the comparability of the two types of investments. "Savings deposits" in the study include only passbook accounts and exclude other time deposit items.¹ Generally speaking, savings deposits are held by individuals for only individuals and non-profit organizations are permitted to open passbook accounts in member banks.

The term share capital in this study, unless otherwise indicated, refers only to shares in insured savings and loan associations. Uninsured share capital is considered to be a distinctly different investment than insured share capital because savers in uninsured associations risk the complete loss of their investments.

Most savings and loan associations accept savings from individuals, corporations, governments, and other savings institutions in unlimited amounts.² Share capital and savings deposits, therefore, are not alternative types of savings for all classes of savers.

¹This is the only available series on time deposits in member and nonmember banks. Certificates of deposit in member banks are separately considered in Chapter V. Passbook savings deposits accounted for 84 per cent of total time deposits of District member banks on June 6, 1957. Total reported time deposits of member banks include holdings by the U. S. Government, local governments, foreign holders, trust departments of banks, corporations, et. al. Passbook savings deposits, therefore, are more useful in a study of personal liquid savings than are total time deposits. Federal Reserve Bank of Chicago, Business Conditions, October 1957, p. 10.

²A recent survey conducted by the Savings and Mortgage Division of the American Banker's Association indicated that 6.4% of the total of 1,223 banks surveyed established a maximum savings deposit balance on which interest would be paid. A Report on the Nationwide Survey of Savings Activities and Trends, (New York, 1958), p. 5, (hereafter cited as A.B.A., 1958 Savings Survey).

It is impossible to estimate what portion of share capital is held by individuals, but the opinion of savings and loan officers and Federal Home Loan Bank officers interviewed is that most share capital is held by individual savers.

Much of the analysis of the study assumes that share capital and savings deposits are alternative types of investment opportunity. Both share capital and savings deposits are available for payment on demand and both are insured by federal insurance corporations. Bankers, however, persist in questioning whether the federal insurance protection given to savers in insured savings and loan associations is as good as savers in insured banks receive.

Both the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation meet claims with cash payments or accounts in other solvent insured savings institutions. The real point of controversy is over the comparative speed with which the two insurance corporations may be expected to act. The FDIC must pay depositors "whenever an insured bank shall have been closed on account of inability to meet demands of its depositors."¹ Banks have a contractual debtor obligation to depositors. This obligation generally requires banks to pay depositors withdrawal demands within up to 60 days. If any bank is not able to meet this obligation it must close. In the course of liquidation or reorganization the FDIC is pledged to make up any net loss on the deposits it insures.

¹U. S., Code Annotated, title 12, sec. 1821f.

The FSLIC must pay insured savers "in the event of a default by an insured institution."¹ The question is what constitutes default. Savers in savings and loan associations are legally owners rather than creditors of their associations. The inability or unwillingness of an association to meet savers' withdrawal notices after 60 days or so may not result in default. Default legally would occur only after an association had completed a liquidation of its assets without satisfying the claims of its shareholders. The question that arises is how long would savers wait until their association liquidated.

This question has not been answered in the past because the FSLIC has acted to reorganize or liquidate associations before they were in a position of being unable to pay withdrawal requests.² The point raised by bankers is that the FSLIC might not elect to act so rapidly in a severe financial crisis. It appears that it would be legally possible for a solvent illiquid association to forestall liquidation for a considerable period of time.³ Federal savings and loan must pay withdrawals: ". . . upon receipt of a written request . . . within 30 days . . . ; provided that if the association is unable to pay at the end of 30 days . . . withdrawal requests shall be

¹U. S., Code Annotated, title 12, sec. 1728b.

²The FSLIC and FDIC have records of acting with equal rapidity in similar situations. Gaylord A. Freeman, Jr., Savings and Loan Competition (Chicago: First National Bank of Chicago, 1955), pp. 58-59.

³An association is legally insolvent if " . . . its assets are less than its obligations to its creditors and others, including its depositors . . .", U. S., Code of Federal Regulations, title 12, Chapter V, sec. 574.1a.

paid in the order received and if any holder of a savings account or accounts has requested the withdrawal of more than \$1,000, he shall be paid \$1,000 in order when reached and his withdrawal request shall be . . . placed at the end of the list . . ."¹ Federal Home Loan Bank regulations require that a receiver must be appointed for purposes of liquidation only in case of: "(a.) Insolvency of a Federal association in that its assets are less than its obligations . . . (b.) Violation of law . . . (c.) The concealment of the books . . . (d.) Unsafe or unsound operation."²

The FDIC is really committed to pay savers' claims only after insured associations have defaulted in their agreement with savers. Federal savings and loan associations agree to pay savers' withdrawal requests in accordance with current Federal Home Loan Bank regulations which were outlined above. Most state-chartered associations make very similar contracts with savers. It is clearly possible that savers in insured savings and loan associations could wait months or even years to receive payment of their withdrawal requests. It was pointed out above, however, that the FSLIC in the past has rapidly paid savers in insured associations unable to meet withdrawal requests. Savings and loan associations argue that the FSLIC and FDIC have similar goals of protecting the interests of savers; therefore, there is no basis for concluding that the FDIC would be more protective of the savers' welfare than the FSLIC in

¹Ibid., sec. 544.3.

²Ibid., sec. 547.1.

a financial crisis.

This argument is difficult to evaluate. Neither the FDIC nor the FSLIC has been forced to weather a severe depression. In the recessions that have occurred since World War II, savings in both banks and savings and loan associations have increased rather than decreased.¹ It is extremely difficult to predict whether share capital or savings deposits would experience the heaviest withdrawals in a severe depression. Average savings accounts in savings and loan associations are larger than in banks, but there isn't any way of determining if large savers would be more likely to demand funds than small savers in a financial crisis.² It might also be recalled that a portion of share capital is held by corporations, governments, and financial institutions, but individuals are virtually the sole holders of savings deposits. However, there is no evidence to suggest that there are significant differences between the willingness of classes of depositors to maintain savings balances during economic depressions.

In a depression, however, there is the possibility that savers

¹See Appendix C, charts B and C.

²On December 31, 1956, the average account in insured savings and loan associations was \$1,900. An American Bankers Association survey of its members indicated that the average savings deposit in commercial banks in 1956 was \$900. U. S. Federal Home Loan Bank Board, Report of the Federal Home Loan Bank Board Covering Operations of the Federal Home Loan Bank System, Federal Savings and Loan System, Federal Savings and Loan Insurance Corporation, 1956, (Washington: Government Printing Office, 1957), p. 38; ABA, 1958 Savings Survey, p. 2.

in savings and loan associations might be more fearful than bank savers of their ability to withdraw savings. Such a fear might cause relatively more shareholders than bank savers to demand their funds. A U. S. Savings and Loan League survey of the opinion of savers indicated savers tend to regard banks as being safer and less likely to be affected by depressions than savings and loan associations.¹ This study, however, was of savers' relative rather than absolute fears of savings institutions. Savers who regarded banks as somewhat safer than savings and loan associations might be unwilling to hold funds in either institution in a financial panic. It appears, therefore, that there is no clear reason for expecting that savings and loan associations would be faced with greater withdrawal demands than banks in a severe depression. The problem that remains is to investigate the relative ability of banks and savings and loan associations to meet major withdrawal demands.

On theoretical grounds it would appear that illiquidity would be the major reason why a financial institution would be unable to meet savers' withdrawal demands. Savers in both banks and savings and loan associations expect their withdrawal requests to be paid on short notice, but both institutions invest deposited savings in relatively illiquid assets. The savings institutions are able to be relatively illiquid because of the extreme unlikelihood that all savers will demand their funds at the same time and because of the

¹United States Savings and Loan League, 1955 Consumer Survey on Savings Habits, (Chicago, 1954), pp. 33-35 (hereafter cited as USSLL, 1955 Consumer Survey).

"liquidity guarantees" of central banking agencies. The Federal Home Loan Banks are pledged to lend members up to 50 per cent of their share capital to meet liquidity requirements. This pledge is a virtual guarantee that savings associations in need of funds may "rediscount" sound mortgages to the Federal Home Loan Banks if necessary to obtain funds. There doesn't appear to be any serious doubt that the Federal Home Loan Banks are willing and able to make good on their liquidity pledge.¹ If this is the case, there doesn't appear to be any substantial likelihood that a member association would be unable to meet withdrawal requests because of illiquidity. It is important to note that all insured savings and loan associations are members of the Federal Home Loan Banking System. All insured savings and loan associations, therefore, are reasonably well protected against dangers of severe illiquidity.

All insured commercial banks are not members of the Federal Reserve System. Member banks, however, are reasonably certain that the Federal Reserve will discount their loans and investments if they are faced with extraordinary liquidity requirements. The Federal Reserve System has not advanced a specific "line of credit"

¹The Federal Home Loan Bank System may issue its own debt obligations for public sale, or it may sell up to one billion dollars directly to the Treasury, if a satisfactory private market is not available. The current law allows the Federal Home Loan Bank to issue debt until its assets are twelve times its capital stock. On December 31, 1956, the capital stock of the Federal Home Loan Bank would have supported assets equal to about 20% of member share capital. The Federal Home Loan Banks, however, may sell additional stock to members or the Treasury. There is little doubt, therefore, that the Federal Home Loan Banking System would be able to meet member liquidity needs.

similar to that of the Federal Home Loan Banks, but it is generally felt that the Federal Reserve would not refuse member discount requests in a period of genuine need. Nonmember banks perhaps may rely upon larger member correspondent banks for their liquidity needs.

It appears, therefore, that savers in both member banks and savings and loan associations need not worry much about the potential illiquidity of their savings institutions. The federal insurance corporations are also unlikely to be faced with problems of insured institutions unable to pay withdrawal requests because of illiquid assets.

In a severe financial crisis both the FSLIC and the FDIC are most likely to be faced with claims of savers with funds in savings institutions with low loss reserves or "capital." In a severe depression savings institutions are likely to sustain capital losses on assets sold and loans and investments which default. In addition, during such a period many borrowers would likely slow down or stop making repayments. The size of capital losses that savings institutions would bear would partially depend upon the willingness of examiners to allow lending institutions to carry loans behind in payments.¹ In any case, a severe depression would undoubtedly cause banks and saving and loan associations to sustain major capital

¹It is conceivable that Federal Home Loan Banks and Federal Reserve Banks might be unwilling to accept assets with payments in arrears as security for loans to members. Extremely weak institutions might be encouraged to liquidate, but in a general financial panic it is likely that the central banks would support members liquidity needs to the limit of their ability.

losses. Associations with losses in excess of their total reserves would be forced to liquidate. Insured depositors would likely receive prompt settlement of their claims from the FDIC and FSLIC.¹

It may be concluded, therefore, that savers in insured member savings and loan associations or commercial banks need not fear long delays before they will be able to withdraw their funds. It is very unlikely that either type of institution will be sufficiently liquid to meet savers withdrawal requests promptly. In the event that a savings institution suffers capital impairment, the institution would soon be liquidated. Insured unsatisfied depositors' claims likely would be promptly paid. There is no reason to assume that the FSLIC would act less promptly than the FDIC in settling claims.

¹One might question the ability of the FDIC and FSLIC to meet a major wave of claims. On December 31, 1956, the reserves of the FDIC were 1.4 per cent of insured bank deposits. U. S. Federal Deposit Insurance Corporation, Annual Report, 1956 (Washington, 1957), p. 16. If it is assumed that as much as 20 per cent of the share capital of insured savings and loan associations is held in accounts in excess of \$10,000, the reserves of the FSLIC would equal roughly 1.0 per cent of insured share capital. U. S., FHLBB, Report . . . 1956, p. 35; Savings and Home Financing Source Book, 1957 (Washington, 1957), p. 12. (Hereafter cited as U.S., FHLBB, . . . Source Book, 1957). However, both the FDIC and FSLIC have authority to borrow up to \$750 million from the U.S. Treasury to meet their obligations. This authority clearly indicates Congressional desire to insure the solvency of the insurance corporations.

There is also no clear basis for estimating whether the FDIC or FSLIC would be faced with more claims. It is doubtful that the mortgages are more subject to default risk than the range of bank loans and investments. The record of savings and loan associations on mortgage foreclosures has been very good. Even during the 1930's their losses were small. Horace Russell, Savings and Loan Associations, (Albany, N.Y.: Mathew Bender, 1956), p. 32. Home owners apparently are reluctant to default on mortgage obligations. Banks have yet to test their losses on consumer loans and sales finance loans in a major recession.

The bankers argument that insured associations might refuse to pay savers withdrawal requests because of inability to liquidate their assets appears to be invalid. All insured associations are virtually guaranteed asset liquidity because of their membership in the Federal Home Loan Banking System. It is extremely unlikely that the FSLIC would be faced with the problem of deciding whether or not to close a solvent illiquid association. Share capital, therefore, appears to be a very close substitute for savings deposits. Both types of investment enjoy very comparable liquidity and insured safety of principal.

Weighted Average Interest Rates

Before beginning the statistical analysis, it is important to emphasize that the interest rates used in this study are advertised rates rather than actual rates earned by savers. Advertised rates are the maximum possible return a saver may expect to earn on his savings balance.¹ It is very possible that a saver's account will earn less than the maximum rate. Interest earnings are a function of both the rate of interest advertised and the method used to credit interest payments. There are many methods of crediting interest payments used by savings institutions.

There has not been a study of the methods of interest payment computation used by District banks, but a 1952 survey by the American

¹Some savings and loan associations and a few banks use more than one advertised rate or bonus rates. Bonuses may be paid to very long term savers or as a reward for regular additions to savings. There are no data on the extent which such bonus plans are used, but most insured savings and loan associations and nearly all banks pay only a single rate on savings.

Bankers Association indicated that 89.5 per cent of surveyed banks in the United States used one of six basic methods of computation.¹ A brief description of these methods is contained in Appendix E. The method that is most rapidly increasing in popularity is the minimum balance method. Savers in banks which pay interest on minimum balances receive no return on deposits made during a given quarter or semiannual interest payment period. Savers who make temporary withdrawals are also penalized with such a computational method.

Because savers in banks do make deposits and withdrawals between periods of interest creditability, the average saver receives a return that is 13 per cent lower than the advertised rate of the bank in which he saves.² In 1956 the average saver in insured savings and loan associations in District metropolitan areas of Indiana and Michigan received a return equal to 96 per cent of the advertised rate.³ Part of the differential between actual interest payments of banks and savings and loan associations is due to the fact that share capital tends to turn over less rapidly than savings deposits. However, savers in savings and loan associations are more likely to receive interest credit for new deposits than are bank

¹American Bankers Association, Savings and Mortgage Division, Methods and Procedures in Computing Interest on Savings Deposits, (New York, 1953), p. 1.

²Based on an average of the six most common methods of computing interest payments.

³An estimate computed from annual reports of member savings and loan associations submitted to the Federal Home Loan Bank of Indianapolis.



savers. Share capital deposited after the tenth of a month usually earns interest from the first day of the following month. New bank savings deposits may not earn interest for up to nearly six months in some banks.

Temporary withdrawals from banks are more likely to result in interest penalty than withdrawals from savings and loan associations. Banks frequently pay interest only on an account's minimum balance in a given period, but savings and loan associations usually give interest payment credit for any additions made to the minimum balance of an account. Both savings and loan associations and banks do not pay interest on any funds withdrawn without redeposit before the end of the interest credit period. Savers in District banks are less likely to lose interest credit because of this procedure than are savers in savings and loan associations. This is true because District banks frequently compute interest on a quarterly basis but savings and loan associations usually compute interest on a semi-annual basis. This potential disadvantage of savings and loan associations probably doesn't depress earnings of share capital much because of the very sharp seasonality of share capital withdrawals. Table 1 below illustrates that savings and loan association savers in Detroit, as an example, make relatively few withdrawals during months when the interest rate penalty is severe.

It is really doubtful if the distinction between advertised and real interest rates is considered to be important by the majority of savers. Many savers undoubtedly are unaware of alternative methods of computation of interest earnings on savings. It is noteworthy

TABLE 1
SEASONAL INDEXES OF RATES OF WITHDRAWAL OF
INSURED DEPOSIT SAVINGS IN DETROIT

	<u>Share Capital</u>	<u>Savings Deposits</u>
January	1.68	1.10
February	.92	.92
March	.94	1.02
April	.90	.99
May	.74	.87
June	.86	1.10
July	1.60	1.10
August	1.08	1.09
September	1.00	1.02
October	.89	.95
November	.68	.83
December	.70	1.01

SOURCE: Federal Reserve Bank of Chicago and the Federal Home Loan Bank of Indianapolis. Indexes for savings deposits and share capital are based on data from June 1954 to June 1958, and June 1953 to June 1958, respectively.

that there are not any obvious differences in the methods of interest rate computation between District metropolitan areas, nor is there a clear tendency for all banks in a given metropolitan area to use the same method of interest rate computation. Most insured savings and loan associations use the same method of computation. It is doubtful if the statistical results of this study would have been significantly different if actual rather than advertised interest earnings had been used.

CHAPTER II

SHARE CAPITAL AND SAVINGS DEPOSITS IN METROPOLITAN AREAS

This chapter presents the results of a statistical analysis of stocks and flows of share capital and savings deposits in the Districts' metropolitan areas. The major intent of this chapter is to discuss factors which tend to influence the observed distribution of savings and trends in savings in the District.

Stocks of Share Capital and Savings Deposits

Table 26 in Appendix D shows estimates of per capita holdings of share capital and savings on December 31, 1956. There was a weak but significant tendency for per capita savings deposits to be high in areas where per capita share capital was low.¹ This relationship indicates the possibility that the conditions which influence the public's desire to hold share capital and savings deposits may be weakly interdependent.² It is interesting to note that there was

¹The correlation coefficient was .39. The level of significance used throughout this study was .05. 32 observations were used in most statistical tests made. Appendix tables contain the data used to perform most of the significant statistical calculations cited in this study.

²Possible additional evidence of this relationship was the very weak tendency for per capita savings deposits to relate negatively to rates of interest paid on share capital and the per capita availability of savings and loan offices. The multiple correlation coefficient was .40. The data are in Appendix D, Table 26.

no apparent tendency for per capita savings deposits to relate significantly with the rate of interest paid on savings deposits or the number of commercial banks in an area.¹

Data are also available on the average size of savings deposits and the number of savings deposit accounts per capita in District metropolitan areas. Statistical analysis indicated that neither the average size of savings deposit accounts nor the number of savings deposit accounts per capita related to the interest rate paid on savings deposits or the availability of commercial bank offices. There was, however, a weak tendency for the average size of savings deposits to be high where the interest rate on share capital was low or where there was a narrow spread between rates of interest paid on share capital and savings deposits.² The number of savings deposit accounts per capita tended to be high in areas where there was a narrow spread between the rates of interest on share capital and savings deposits or where there were relatively few savings and loan offices.³ These relationships are very weak which indicates that this analysis has failed to demonstrate that either the average size of savings deposits or the number of savings accounts per capita are very responsive to savings and loan association competition.

¹The rates of interest used in this study are weighted averages calculated by using the savings deposits of savings institutions as weights.

²Multiple correlation coefficient of .45. Data are in Appendix D, Tables 25 and 26.

³Multiple correlation coefficient of .46. Data are in Appendix Tables 25 and 26.

Per capita share capital holdings, of course, tend to be high in areas where per capita savings deposits are low. However, there is a definite positive tendency for per capita share capital to relate to the weighted average interest rate paid on share capital and the availability of savings and loan offices.¹ Partial correlation analysis indicates that the per capita availability of savings and loan offices is the most significant variable in this relationship.² It appears probable that savings and loan offices tend to be most conveniently available to savers, and share capital savings tend to be aggressively promoted, in areas where there are relatively more savings and loan associations.

Total holdings of share capital and savings deposits may also be compared on the basis of their relative importance in metropolitan areas. Table 27 in Appendix D indicates the relative share of area insured savings held in savings and loan associations.³ Of course, share capital tends to represent a large portion of area

¹Multiple correlation of .59. Data are in Appendix D, Table 27.

²The partial coefficient of correlation was .47. It is interesting to note that interest rate paid on share capital and the per capita availability of savings and loan associations correlated with a coefficient of .45. This relationship indicates that the interest rate paid on share capital may be bid up in areas where there are many competing savings and loan associations.

There were no readily available data on the number of share capital accounts in most district metropolitan areas so it was impossible to compute the average size of share capital accounts or the number of accounts per capita for a significant number of areas. Table 41 in Appendix D indicates the average size of share capital accounts in several District areas and centers. Centers are defined as central cities with fewer than 50,000 inhabitants.

³Insured savings consist of insured share capital and savings deposits.

insured savings in areas where per capita share capital is high and where per capita savings deposits are low. It was observed above that share capital per capita tended to be high (and savings deposits per capita low), where the interest rate paid on share capital was high, and where there were relatively many savings and loan offices. Both of these variables significantly relate to the relative share of area insured savings that is invested in savings and loan associations.¹ It is again interesting to observe that the per capita availability of savings and loan associations was the most significant variable in the analysis.² Again, there did not appear to be any close relationship between the distribution of stocks of savings and the interest rate paid on savings deposits.³

A significant byproduct of the above analysis is the observation that savers appear to benefit where there is relatively more

¹Multiple correlation coefficient of .66. Data are in Appendix D, Table 27.

²Partial correlation coefficient of .53.

³Several other variables were tested in the attempt to find variables which influence stocks of insured savings in District metropolitan areas. Partial correlation analysis indicated that none of the variables in the following list significantly related to per capita savings deposits, per capita share capital, or the relative portion of area insured savings held in savings and loan associations:

- Interest rate on savings deposits
- Per capita commercial bank offices
- Spread between interest rates paid on savings deposits and share capital
- Savings and loan offices as a per cent of area insured savings offices
- Per capita uninsured share capital
- Per capita postal savings
- Per capita certificates of deposit
- Per capita credit union shareholdings

competition between savings institutions. The weighted average interest rate paid on insured deposit savings tends to be high in areas where there are relatively more insured savings institutions.¹ Savers in savings and loan associations benefit most.²

In addition to comparing per capita savings deposits and share capital, an attempt was made to identify factors which influence total area insured savings. Total area insured savings per capita showed no significant relationship with the weighted average interest rate paid on insured savings or the per capita availability of insured savings institutions. This observation is not surprising due to the fact that per capita savings deposits do not relate to the rate of interest paid on savings deposits or the availability of bank offices, but they tend to relate negatively to the interest rate paid on share capital and the availability of savings and loan offices.

It appears, therefore, that only per capita share capital shows a strong possibility of relating to the rate of interest paid by insured savings institutions and the availability of savings offices. It is really not surprising that it has been difficult to identify factors which influence savings stocks. Rates of interest, for instance, change relatively rapidly, but total stock of savings may be expected to react slowly to interest rate changes. Stocks of

¹Correlation coefficient of .48. The data are in Appendix D, Table 53.

²The correlation coefficient of the interest rate paid on share capital and the per capita availability of savings and loan offices was .45. The data are in Table 27 in Appendix D.

savings include many inactive accounts which frequently do not respond to changing investment opportunity. In a comparative analysis of metropolitan area savings there are also basic differences in savings habits and environmental conditions which are exceedingly difficult to identify statistically. Savings stocks also may reflect historic variables no longer observable today.

The Flow of Savings Deposits

In the analyses of factors which influence the flow of savings, an attempt has been made to identify relationships which show some temporal stability. Care has been taken to place little confidence in variables which appear significant in one year but insignificant in other years. Such variables may realistically reflect significant relationships, but an attempt has been made to identify variables which have a clear tendency to be useful indicators of the flow of saving in the District.

The inflow of savings deposits into metropolitan area banks doesn't appear to show any consistent relation with a series of variables tested. (See Table 2). It is particularly interesting to cite the fact that the inflow of savings deposits did not significantly relate to the rate of interest paid on savings deposits.

Changes in the rate of inflow of savings deposits in metropolitan area did significantly relate to changes in the rate of interest paid on savings deposits during the two years for which data

TABLE 2
VARIABLES TESTED WITH THE INFLOW, OUTFLOW, AND NET
CHANGE IN SAVINGS DEPOSITS IN DISTRICT AREAS

Annual increase in share capital
Interest rate paid on savings deposits
Interest rate paid on share capital
Spread between rates paid on share
capital and savings deposits
Bank offices per capita
Savings and loan offices per capita
The ratio of bank and savings and
loan offices
U. S. Savings Bond sales
Annual change in U. S. Savings Bond
sales
Annual increase in the rate of interest
paid on savings deposits
Annual increase in the rate of interest
paid on share capital
Annual change in the spread between rates
paid on share capital and savings
deposits
Annual change in demand deposit debits¹
Average size of savings deposit accounts
The number of savings deposit accounts
per capita

data were available.² In areas where there was the largest increase in the rate of interest paid on savings deposits, there was the greatest increase in the rate of savings deposit inflow. This limited

¹The only general economic indicator available for all areas in this study.

²Correlation coefficient of .52 in 1956 and .54 in 1957. Data are in Appendix D, Tables 28 and 29. Savings deposit inflows also tended to increase in areas where there was a decrease in the spread between the interest rates paid on share capital and savings deposits. The rate spread decrease, however, was mostly explained by increases in the interest rate paid on savings deposits. Partial correlation analysis indicated that the decreasing spread between interest rates paid by banks and savings and loan associations was not a significant independent variable.

analysis suggests that metropolitan area differences in the inflow of savings deposits are not explained by difference in the interest rate paid on savings deposits, but area changes in the rate of inflow of savings deposits do tend to reflect changes in savings deposit earnings. This conclusion is consistent with the observation that much saving behavior is habitual or motivated by factors other than interest rates. Interarea differences in savings habits and other variables likely swamp the comparative effects of the interest rate on rates of savings deposit inflow. The environmental influences on saving, however, may well be relatively stable so that changes in the rate of interest paid on savings deposits might be expected to produce noticeable effects on the rate of savings deposit inflow.

On the other hand, changes in the rates of outflow of savings deposits don't seem to correspond with changes in the rates of interest paid on savings deposits. Actual rates of outflow, however, did tend to relate to interest rate variables in 1956 and 1957. Outflows in these years tended to be highest in areas where the interest rate paid on savings deposits was low or where there was a wide spread between interest rates paid on share capital and savings deposits.¹ Partial correlation analysis indicated that the spread between the interest rates paid on insured savings was the

¹Multiple correlation coefficients of .53 in 1956 and .45 in 1957. The data are in Appendix D, Tables 31 and 32.

most significant of these variables.¹ Additional evidence of the relationship of savings deposit withdrawals to savings and loan competition is indicated by the fact that savings deposit withdrawals in 1955, 1956, and 1957, tended to be highest in areas where share capital grew most rapidly.² Average savings deposit withdrawals during the three year period, 1955-1957, also tended to be highest in areas where the average rate of interest paid on share capital during these years was highest, and where the average rate of share capital increase was highest.³

It has been demonstrated above that there is a possible weak relationship between savings deposit withdrawals and the competition of savings and loan associations. Savings deposit withdrawals, however, correspond very closely with metropolitan area rates of savings deposit inflow. Savings deposit withdrawals tend to be high in areas where the rate of savings deposit inflow is high.⁴ A possible explanation of this condition is the common bankers' observation that new accounts turnover more rapidly than old accounts. It is also

¹Partial correlation coefficients of .44 in 1956 and .37 in 1957.

²Correlation coefficients of .37, .39, and .36 in the three years. The data are in Tables 30-32.

³Correlation coefficients of .46 and .45 respectively. The average rates of interest were computed by averaging the interest rates paid on share capital on December 31, 1955, 1956, and 1957. Average savings deposit withdrawals and share capital growth were computed by averaging annual totals in 1955, 1956, and 1957.

⁴Correlation coefficients of .83 in 1955, .87 in 1956, and .72 in 1957. The data are in Appendix D, Tables 30-32.

— 1. The first of these is the fact that the
theoretical framework of the model is
based on the assumption that the
economy is in a state of long-run
equilibrium. This assumption is
questionable, especially in the
case of a rapidly growing economy.
2. The second is the fact that the
model does not take account of the
possibility of a change in the
technology of production. This is
a serious omission, since the
possibility of a change in technology
is one of the main factors which
determine the growth of an economy.
3. The third is the fact that the
model does not take account of the
possibility of a change in the
preferences of consumers. This is
also a serious omission, since the
possibility of a change in preferences
is one of the main factors which
determine the growth of an economy.
4. The fourth is the fact that the
model does not take account of the
possibility of a change in the
distribution of income. This is
also a serious omission, since the
possibility of a change in the
distribution of income is one of the
main factors which determine the
growth of an economy.

likely that funds recently deposited are more subject to withdrawal than long-term deposit balances. For many individuals, savings deposits are only temporary balances accumulated for purchases or other investments.¹ Consequently, it doesn't appear to be unreasonable that savings deposit withdrawals are high in areas where the inflow of savings deposits is high. This simply means that savings deposits are more actively used in some areas than in other areas.²

The net increase in savings deposits, which of course reflects the combined effects of rates of savings deposit inflow and outflow, tends to relate to the rate on interest paid on savings deposits. In 1955, 1956, and 1957, savings deposits in metropolitan areas increased most where the weighted average interest rate paid on savings deposits was highest. The correlation coefficients were .37 in 1955, .61 in 1956, and .73 in 1957.³ The increase in the correlation coefficients indicates that the level of savings de-

¹It is noteworthy that time deposits in commercial banks usually decline significantly in November, prior to the Christmas shopping season.

²It is interesting to observe that both inflows and outflows of savings deposits tend to be high in areas where the average size of savings deposits is low. The correlation coefficients in 1956 were -.54 and -.61 respectively. The data are in Appendix D, Tables 25 and 31. These relations indicate that large accounts tend to be less active than small accounts. Neither savings deposit inflows or outflows significantly related to the number of savings deposit accounts per capita.

³The data are in Appendix D, Tables 33-35.

posits became increasingly sensitive to interest earnings from 1955 to 1957. The rates of interest paid on savings deposits increased impressively in most District areas from 1955 to 1957.¹ It is likely that higher rates of interest paid on savings deposits tend to make the interest rate a more significant variable in determining the rate of savings deposit growth.

Additional evidence of the relationship of the rate of savings deposit growth and interest earnings of savings deposits is indicated by the fact that savings deposits increased most from December 31, 1955 to December 31, 1957 in areas where there was the greatest increase in the rate of interest paid on savings deposits during this period.²

It is also possible to make annual comparisons of increases or decreases in rates of savings deposit growth and changes in interest rates paid to savers in District metropolitan areas. During both 1956 and 1957 savings deposits tended to increase at an increasing rate in areas where the interest rate paid on savings deposits was high and where there was an increase in the rate of interest paid on savings deposits during the year.³

¹The mean weighted average interest rate paid on District metropolitan area time deposits was 1.42% in 1955, 1.87% in 1956, and 2.16% in 1957.

²Correlation coefficient of .43. The data may be derived from Tables 33-35 in Appendix D.

³Multiple correlation coefficients of .55 in 1956 and .78 in 1957. The data are in Appendix D, Tables 37 and 38.

Table 3, below, indicates the interesting fact that both the average rate of increase of savings deposits in all District metropolitan areas and the average rate of interest paid on savings deposits rose significantly in each of the three years studied. This comparison indicates further evidence of the possible relationship of interest earnings and the rate of increase of savings deposits.

TABLE 3

MEAN INTEREST RATES ON SAVINGS DEPOSITS AND
RATES OF SAVINGS DEPOSIT GROWTH IN
DISTRICT METROPOLITAN AREAS

	<u>Interest Rate on Savings Deposits</u>	<u>Rate of Savings Deposit Growth</u>
1955	1.42%	3.75%
1956	1.82	5.14
1957	2.16	7.32

SOURCE: Federal Reserve Bank of Chicago, Savings Survey, unpublished.

It appears, therefore, that savings deposits tend to increase most in areas where savers are relatively well rewarded. The rate of savings deposit growth tends to increase in areas where interest rates are high or where interest rates are increasing most rapidly. These relationships are much more clearly defined than the possible effects of interest rates upon the rates of savings deposit inflow and outflow studied separately.

1. The first part of the document is a list of the names of the members of the committee who have been appointed to study the problem of the distribution of the public lands of the State of California.

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9. The following is a list of the names of the members of the committee who have been appointed to study the problem of the distribution of the public lands of the State of California.

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12. The following is a list of the names of the members of the committee who have been appointed to study the problem of the distribution of the public lands of the State of California.

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15. The following is a list of the names of the members of the committee who have been appointed to study the problem of the distribution of the public lands of the State of California.

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18. The following is a list of the names of the members of the committee who have been appointed to study the problem of the distribution of the public lands of the State of California.

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26. The following is a list of the names of the members of the committee who have been appointed to study the problem of the distribution of the public lands of the State of California.

27.

28.

29.

30.

31.

32.

33.

34.

35.

36.

37.

38.

39.

40.

At this point it should be noted that there was a tendency for savings deposits to increase most rapidly in areas where there were relatively many savings deposit accounts per capita.¹ There was no significant relation between the rate of savings deposit increase and the average size of savings deposit accounts or the level of per capita savings deposits in the District metropolitan areas. These relationships definitely suggest a tendency for savings deposits to grow most rapidly in areas where there are many savings accounts. This evidence would indicate that bankers perhaps are wise to promote aggressively the opening of new accounts. New accounts undoubtedly increase bank withdrawal rates, but there is evidence to suggest that they do tend to produce significant net increases in savings deposits.

The other variables listed in Table 2 above were tested and found not to relate significantly with rates of savings deposit growth. Of particular interest is the fact that increases in savings deposits appear to be independent of the relative availability of savings and loan offices. In the analysis of savings stocks it was observed that per capita savings deposits tended to be low in areas where there were relatively many savings and loan offices. It is quite possible that this relationship may have reflected past competitive conditions which may have been more recently outweighed

¹Correlation coefficient of .48 in 1956. The data are in Appendix D, Tables 25 and 34.

by other factors. The recent rapid increases in interest rates of commercial banks have undoubtedly improved their competitive position. The rate of interest paid on savings deposits appears to be the most useful single variable relating to the growth of savings deposits in the District metropolitan areas.

Share Capital Growth

There is considerable variance in the rate of increase in share capital among District areas in each of the three years covered by this study.¹ It was noted above that in 1955, 1956, and 1957, share capital tended to increase most rapidly in areas where withdrawals of savings deposits were highest. These relationships, however, were very weak and indicate only a limited possibility that some of the growth of savings and loan associations may be at the expense of actual savings deposit balances.² There was also a weak tendency for share capital in 1956 and 1957 to increase most in areas where there was the largest spread between interest rates on share capital and savings deposits, but this relationship was not significant in 1955 and it was not very impressive in 1956 and 1957.³ It is also important to point out that neither the inflow nor the net increase in savings deposits related to the growth of share capital. None of these relationships indicate any strong

¹See Appendix D, Tables 30-32.

²Correlation coefficients of .36 in 1955, .40 in 1956, and .37 in 1957. The data are in Appendix D, Tables 30-32.

³Correlation coefficients of .35 and .41 respectively. The data are in Appendix D, Tables 31 and 32.

tendency for the growth of savings in savings and loan associations to be influenced by the competitive success or the competitive offering of banks. There does, however, appear to be a weak tendency for savings deposit withdrawals to be high where savings and loan associations pay relatively high rates of interest on savings compared with the rates paid by banks.

It is difficult to suggest why share capital growth tends to relate to savings deposit withdrawals, but not to the rate of savings deposit inflow or net growth. A possible interpretation of this condition is that savings deposits may be used as convenient depositories for some individuals who gradually accumulate savings until they have enough funds to make it worthwhile to seek a more rewarding place to invest their savings. This effect, however, perhaps is too weak to cause a significant interdependence of the rates of share capital and savings deposits growth.

Numerous attempts were made to find useful variables to aid in explaining some of the observed variance in rates of growth of share capital in metropolitan areas. Table 4 indicates the variables that were tested with the rate of share capital growth. It was particularly surprising to find no significant relationship between the rate of growth of share capital and the rate of interest paid on share capital. The spread between the rates of interest paid on share capital and savings deposits was a somewhat more useful variable, but its relationship with the rate of share capital growth was not very impressive.

TABLE 4

VARIABLE TESTED WITH THE ANNUAL GROWTH OF
SHARE CAPITAL IN DISTRICT AREAS

Annual savings deposit inflow
 Annual savings deposit outflow
 Annual net change in savings
 deposits
 Interest rate paid on share
 capital
 Interest rate paid on savings
 deposits
 Spread between rates paid on share
 capital and savings deposits
 Bank offices per capita
 Savings and loan offices per capita
 The ratio of bank and savings and
 loan offices
 U. S. Savings Bond sales
 Annual change in U. S. Savings Bond
 sales
 Annual increase in the interest rate
 paid on share capital
 Annual increase in the interest rate
 paid on savings deposits
 Annual change in the spread between
 rates paid on share capital and
 savings deposits
 Annual change in demand deposit debits

Due to the clerical burden of compiling a series on inflows and outflows of share capital by metropolitan areas and centers, data for this study were prepared and analyzed for only two short periods, July to December 1955, and July to December 1956.¹ There was a definite tendency for both the inflow and outflow of savings deposits to be high where the inflow of share capital was high in

¹Centers are cities with less than 50,000 inhabitants.

both of the time periods considered.¹ There was no relation between the inflow of share capital and the net rate of savings deposit growth. Again, the data do not clearly indicate shifts of savings between banks and savings and loan associations.

Share capital inflows like savings deposit inflows also do not appear to relate to the interest rates paid by insured savings institutions or the relative availability of savings offices.² However, a comparison of the rates of share capital inflows in the two periods studied indicated that share capital balances tended to increase at an increasing rate in areas where there was an increase in the rate of interest paid on share capital between December 31, 1955, and December 31, 1956.³ These results suggest that there may be relatively stable institutional and environmental factors which account for absolute area differences in rates of share capital growth, but a change in the rate of interest paid on share capital will significantly alter the rate of new savings flowing into savings and loan associations.

As in the case of savings deposit inflows, the rate of share capital outflow very closely relates to the rate of share capital

¹The correlation coefficients of share capital inflows with savings deposit inflows were .57 and .58. The correlation coefficients of share capital inflows and savings deposit outflows were .47 and .57. Data on share capital inflows are in Appendix D, Table 38.

²Share capital inflows were tested with most of the variables in Table 4 above.

³Correlation coefficient of .65, the data are in Appendix D, Table 35.

inflow.¹ New accounts undoubtedly contribute to this relationship. It is also likely that savings and loan associations are attracting relatively more active money in areas where the inflow of share capital is high.

Share capital withdrawals show no significant relation to the rate of interest paid on share capital. There also does not appear to be any significant tendency for withdrawals to decline in areas where the rate of interest paid on share capital increased during a given time period. These results are not particularly surprising in view of the very close relation between rates of share capital inflows and outflows. A contributing condition may also be the fact that interest rates on share capital exceed rates paid on savings deposits and most other comparable types of investment.² It is unlikely that many individuals shift savings from savings and loan associations to banks or to other types of fixed investment. It is, therefore, not surprising that share capital withdrawals appear to be interest inelastic.

In addition to the analysis of share capital in the District metropolitan areas, a limited study was performed on the rates of growth of individual savings and loan associations. An attempt to

¹The correlation coefficient for the period, June to December 1954, was .89. The data are in Appendix D, Table 38.

²Rates paid on share capital usually exceed yields on U. S. Savings bonds, postal savings deposits, and certificates of deposit issued by banks.

relate the rates of interest paid by associations with their rates of growth did not yield significant results. It might be argued that such an effort was doomed to failure from the start because the rate of growth of an individual association in the District might well be related to its relative rate of interest paid on share capital within its market area rather than to its absolute rate. One might also observe that a comparison of rates of growth of individual associations in different cities would be difficult because of substantial intercity differences in variables other than the interest rates paid by associations.

Another analysis of the rates of growth of individual savings and loan associations was made which removed these two objections. The individual association's interest rates paid were expressed as a per cent of the area average rate, and the associations' rates of growth were expressed as a per cent of the average rate of growth of savings and loan associations in the area. An analysis of these two revised variables failed to indicate a significant relationship between rates of interest paid by savings and loan associations and their rates of growth.

Further evidence of the fact that dividend rates often are not the major factor explaining an association's size is illustrated in Appendix D, Table 40. This table indicates that even very large savers, who would likely find it financially rewarding to invest in the highest paying institution available, frequently do not invest in the highest paying locally available savings and loan association.¹

¹Table 41 in Appendix D indicates that there is no tendency for savings and loan associations to attract more large savers in metropolitan areas where the interest rate on share capital is high or where savings and loan associations advertise heavily.

It is quite likely that large savers place heavy emphasis on the quality of management and the apparent financial soundness of an association. Large savers might be particularly sensitive to such factors because they risk the possible loss of their savings in excess of \$10,000 deposited in a single account.

In order to investigate the possible influence of advertising expenditures on the rate of growth of share capital in individual associations it was necessary to select some means of comparing association advertising expenditures. A comparison of absolute expenditures and share capital growth indicates a strong positive statistical relationship between these variables.¹ Large associations spend relatively large amounts on advertising and attract relatively large amounts of share capital. One should not immediately conclude, however, that this is entirely a cause and effect relationship. Large associations of course tend to attract more new savings because they have more established accounts. Further study indicated that there is no significant statistical relationship between absolute advertising expenditures and percentage rates of share capital growth. This simply means that large associations don't necessarily grow faster than small associations.

If promotion expenditures are expressed as a per cent of share capital, it is possible to establish a weak positive relation between association outlays for advertising and rates of share capital

¹Correlation coefficient of .78.

growth.¹ An attempt was made to improve this relation by expressing ratios of advertising expenditure to share capital as a per cent of the area average, and the rate of growth of an association as a per cent of the area average. These two quantities, however, were not significantly related. It is possible that the effectiveness of an association's advertising expenditure depends more on the level of the expenditure than on how it compares with the advertising effort of other major savings and loan associations.

It is also interesting to point out that there was a significant negative relation between individual association's advertised dividend rates and the ratio of their advertising expense to share capital.² Associations with the highest relative outlays for advertising did not pay relatively high rates of interest on share capital. This observation, of course, contributes to the strength of the statistical relationship between advertising expenditures and rates of share capital growth.³ It has, therefore, been possible to establish a significant, though weak, statistical relationship between the rates of growth of individual savings and loan associations and their rate of advertising expenditure. It has not been possible to relate the rates of growth of individual associations with their relative rates of interest paid to shareholders.

¹Correlation coefficient of .35. 92 associations located in 20 cities were used in this calculation.

²Correlation coefficient of -.37.

³Partial correlation coefficient of .46.

Commercial Bank and Savings Association
Competition for Savings

The intent of the analysis above was to analyze factors influencing the growth of share capital and savings deposits separately. This section attempts to describe factors which tend to influence the relative competitive strength of banks and savings and loan associations in District metropolitan areas.

One measure of the relative current competitive strength of commercial banks and savings and loan associations is the share that each attracts of total net savings flowing into these institutions. Tables 42-44, in Appendix D, indicate the range of the savings and loan associations' share of the flow of insured savings in the years studied. The data indicate a substantial range in the current comparative strength of savings and loan associations in District areas.

An analysis was made of the factors which might influence the share of new insured savings flowing into savings and loan associations. Both the interest rate paid on savings deposits and the spread between the rates paid on share capital and savings deposits significantly related to the annual per cent of insured savings flowing into savings and loan associations. These two variables, of course, are very substantially related. As a result, the multiple correlation coefficients expressed in Table 5 below are not much higher than simple relations of the variables with the per cent of insured savings flowing into savings and loan associations. Partial correlation analysis indicated that the spread be-

tween the interest rates on share capital and savings deposits was the most important variable in this relation in 1956, but of relatively minor importance in 1956 and 1957. The rate of interest paid on savings deposits during a given year appeared to be the variable that relates best to the competitive success of savings and loan associations of the relative lack of competitive strength of banks.

TABLE 5

CORRELATION COEFFICIENTS OF VARIABLES RELATING TO
THE ANNUAL PER CENT OF INSURED SAVINGS FLOWING
INTO SAVINGS AND LOAN ASSOCIATIONS¹

<u>Year</u>	<u>Interest Rate Paid on Savings Deposits</u>	<u>Spread Between Rates Paid on Share Capital and Savings Deposits</u>	<u>Both Independent Variables (Multiple Correlation)</u>
1955	- .39	.65	.69
1956	- .69	.63	.72
1957	- .62	.57	.68

It is not surprising that the interest rate paid by banks and the spread between rates paid on share capital and savings deposits are the most useful variables in this analysis. These same two variables, particularly the rate paid by banks, were the most useful variables in the separate analyses of net increases in share capital or savings deposits. It appears that savings and loan associations simply tend to attract the bulk of new insured savings in areas

¹The data are in Appendix D, Tables 42-44.

where banks pay low noncompetitive rates of interest.

Several other variables were compared with the portion of new insured savings flowing into savings and loan associations. Among the variables tested which showed no consistent tendency to relate with the annual competitive success of savings and loan associations were the rate of interest paid on share capital, changes in the rates of interest paid on share capital, savings deposits, and the difference between these two rates, sales of U. S. Savings Bonds, and the relative availability of savings and loan associations and bank offices.

The above variables were also compared with increases or decreases in the share of new insured savings flowing into savings and loan associations during 1956 and 1957. Only the rate of interest paid on savings deposits proved to be an independently significant variable.¹ This relation indicates that the competitive position of banks is not only weak but it is becoming weaker in areas where banks pay low rates of interest on savings.

Another possible method of looking at the current competitive position of savings and loan associations and commercial banks is to consider the annual increase or decrease in share capital as a percent of total area insured savings. Tables 47-49 in Appendix D indicate the relative annual change in the position of savings and

¹Correlation coefficients of $-.37$ in 1956 and $-.52$ in 1957. The data are in Appendix D, Tables 45 and 46.

loan associations using this method of analysis. Again, the performance of savings and loan associations in the various metropolitan areas is far from uniform.

The results of this analysis were substantially the same as those obtained from an investigation of factors relating to the share of new insured savings flowing into savings and loan associations. Table 6, below, indicates the observed relationships. Partial correlation analysis indicated that the spread between the rates of interest paid on share capital and savings deposits was the most significant variable in 1955, but it was of minor independent significance in 1956 and 1957. In these two years the interest rate paid on savings deposits best related to the increase in share capital as a portion of area insured savings.

TABLE 6

CORRELATION COEFFICIENTS OF VARIABLES RELATING TO
THE ANNUAL INCREASE IN SHARE CAPITAL AS A
PORTION OF AREA INSURED SAVINGS¹

<u>Year</u>	<u>Interest Rate on Savings Deposits</u>	<u>Spread Between Rate on Share Capital and Savings Deposits</u>	<u>Both Independent Variables (Multiple Correlation)</u>
1955	- .32 ^a	.56	.59
1956	- .59	.49	.61
1957	- .67	.53	.70

^aNot significant at the .05 level.

¹The data are in Appendix D, Tables 47-49.

It appears, therefore, that in areas where banks pay low non-competitive rates on savings deposits, savings and loan associations tend to attract the largest share of new insured savings and they are increasing their relative importance as savings institutions.

All of the methods of analysis that have been used in this section have led to the same conclusion. The competitive success of savings and loan associations tends to depend upon the relative willingness of banks to pay high rates of return on savings deposits. This relationship, however, is far from perfect. The correlation coefficients obtained in the analysis indicate that interest rates do not singularly explain the competitive position of banks and savings and loan associations in metropolitan areas. Other unidentified variables such as locational convenience, saving habits, promotional effort, et. al., must be evaluated to gain a full understanding of all of the forces influencing the competitive position of banks and savings and loan associations. At present, there are no adequate data on the variables. However, it does appear that the data that are available indicate that the competitive positions of these savings institutions are influenced by interest rates paid to savers.

Metropolitan Area Insured Savings

This brief section considers annual changes in total area savings in insured banks and savings and loan associations. In 1955, 1956, and 1957, area insured savings tended to increase most in areas where the weighted average interest rate on insured savings

was highest.¹ The coefficients of correlation were .72 in 1955, .57 in 1956, and .65 in 1957.²

Annual increases in the rate of insured savings growth were also significantly related to annual increases in the weighted average interest rate paid on insured savings.³ There was a significant tendency for insured savings to increase at an increasing rate in areas where there was an increase in the average rate of return paid on insured savings.

Several other variables tested failed to relate significantly with the rate of growth of area insured savings. These variables included the per capita availability of insured savings institutions, sales of U. S. Savings Bonds, changes in postal savings deposits, annual changes in demand deposit debits, changes in credit union shareholdings, and original per capita stocks of insured savings.

These observations suggest that high or increasing rates of return paid on share capital and savings deposits not only may influence the relative competitive position of banks and savings and loan associations, but the rates of interest also may increase the total rate of saving in area insured savings institutions. This conclusion should be of particular interest to savings institution

¹The interest rate of each insured savings institution was weighted by its savings balances.

²The data are in Appendix D, Tables 50-52.

³Correlation coefficients of .68 in 1956 and .58 in 1957. The data may be derived from Appendix D, Tables 50-52.

directors who argue that increases in interest rates may only be matched by competition so that their savings will not increase. This argument does not attempt to suggest that the public's desire to consume is influenced by rates of interest paid on insured savings, but it does appear that at least the public's choice of investments (allocation of savings) tends to be influenced by interest rewards offered.

The Income Argument

This study illustrates that the level of interest rates or changes in the level of interest rates paid on insured savings tend to influence the flow of savings into banks and savings and loan associations.

This study has not included consideration of personal income in the District metropolitan areas because there are no adequate estimates available. Of course, it cannot be denied that personal income and the rates of growth of savings deposits and share capital are related, but there is some question about the short run stability of these relationships. Charts B and C in Appendix C illustrate that the rates of growth of share capital and savings deposits don't show much of a tendency to respond to cyclical changes in personal income.¹ There is a very consistent secular stability in the rate of share capital growth. Time deposits have also been secularly rising, but most rapidly since 1950. Personal income shows a strong secular increase which has been periodically interrupted by cyclical declines in

¹The charts are constructed to illustrate comparative rates of growth rather than stocks of savings. Share capital grew much faster than time deposits in the years considered, but time deposit balances have been consistently larger than share capital balances.

national economic activity. However, during most of the time period covered by this study, personal income, share capital and savings deposits all moved upward. Only during the last half of 1957 did personal income turn slightly downward. Nevertheless, these national data indicate that the rates of growth of share capital and savings deposits are not particularly responsive to short run changes in personal income.

This study, however, does not use national aggregative data as the basis for its statistical conclusions. The growth rates of savings deposits and share capital in the District metropolitan areas are compared with the level of interest rates and changes in interest rates paid on insured savings in the metropolitan areas. The validity of the analysis is dependent upon the implicit assumptions that the rates of interest and changes in the rates of interest paid on insured savings are not highly correlated with the income levels and changes in income levels in metropolitan areas. If these variables were highly correlated, it would be very possible that the inclusion of income data might swamp the interest rate effects observed in the analysis.

It would appear to be very unlikely that interest rates on insured savings are consistently highest in high income areas and lowest in low income areas. Tables 23 and 30 in Appendix D indicate interest rates paid on share capital and savings deposits. Although there are no adequate estimates of personal income in these cities, a general knowledge of the level of wages and employment in these areas does not indicate that there is a noticeable tendency

for rates of interest to be highest in the most prosperous communities. For instance, Michigan cities generally suffered the heaviest unemployment in the District at the close of 1957, yet rates of interest on savings in Michigan areas outside Detroit were among the highest in the District on December 31, 1957.

It is also unlikely that interest rates on insured savings consistently increase most rapidly in areas where personal income is increasing most rapidly. It is, furthermore, likely that changes in personal income in District metropolitan areas are more likely to occur within comparable time periods than are changes in interest rates on savings. If it is true that personal income tended to rise and fall roughly simultaneously in the District areas, or that the level and growth of personal income did not correspond well with the level and growth of interest rates on savings in the District metropolitan areas, there is good reason for believing that the level of personal income and changes in personal income did not account for the observed relations between interest rates paid on insured savings and the growth of insured savings. The national comparisons of personal income and insured savings further indicate the possibility that short-term changes in personal income, even though they coincided with changes in interest rates, might not be reflected in rates of share capital or savings deposit increases. It, therefore, appears very unlikely that the relationship of saving flows and interest rates identified in this study could be substantially modified if adequate metropolitan area personal income data were available.

CHAPTER III

SHARE CAPITAL AND SAVINGS DEPOSITS IN CHICAGO

So far this study has been concerned with a comparison of savings activity in many metropolitan areas. It is also useful to make a detailed analysis of savings behavior within a single large economic area. Chicago is perhaps an ideal city for this type of analysis. It is certainly a large city, and a city with quite diverse economic activity. A major advantage of Chicago is the fact that there are no branch banking facilities within the metropolitan area. Data on each banking office, therefore, are readily available.

For the purpose of this analysis, the Chicago metropolitan area has been broken down into 15 geographic areas. These areas consist of six city sectors and nine suburban areas. The classifications are listed in Table 50 in Appendix D. The Loop area of the city of Chicago, which is the financial center of the city, must really be considered separately for many types of analysis because of the relative size of the financial institutions located there.

Reliable data on both savings deposits and share capital in Chicago are available only since December 1955. The analysis is also limited by the fact that it is very difficult to establish a cause and effect relationship in a comparison of trends in savings

activity in Chicago areas. This is because of the relatively small number of suburbs and city sectors into which the Chicago area is divided. The comments contained in this section, therefore, frequently are more descriptive than analytical. This study of savings in Chicago will also be confined to consideration of savings deposits and share capital, the major types of personal liquid financial savings.

Savings Stocks

It might be useful initially to consider comparative per capita stocks of savings deposits and share capital in the various city sectors and suburbs. The Loop area (financial district) must be excluded from this analysis because its banks and savings and loan associations definitely do not primarily service the neighborhood area. Table 54 in Appendix D shows per capita holdings of share capital and savings deposits in each of Chicago's geographic areas.¹ It is apparent that there is a very broad range of per capita savings deposits and share capital. A modest attempt has been made to isolate factors which may influence the relative size of savings deposits and share capital in the areas studied.

Table 54 in Appendix D illustrates that share capital per capita in 1956 tended to be high in those areas where the rate of interest paid on share capital was high or where there was a substan-

¹1950 U. S. Census of Population estimates were used in calculating the per capita figures. There have been substantial changes in the distribution of Chicago's population since 1950. The population estimates used in this study, therefore, are subject to considerable error.

tial difference between rates of interest paid on share capital and savings deposits. Partial correlation analysis indicated that the interest rate paid on share capital was by far the most important independent variable in this relationship.¹ Savings deposits per capita tended to be high where the interest rate paid on savings deposits was high.² There didn't appear to be a significant statistical relationship between the per capita availability of banks or savings and loan associations and per capita savings deposits or share capital.

These results may be compared with the relations observed for District metropolitan areas in the previous chapter. It appears that per capita share capital and savings deposits tend to relate more with interest rate variables in Chicago city sectors and suburban areas than in all District metropolitan areas.³ The significance of this distinction, however, is limited by the accuracy of the population estimates used in this study.⁴

In addition to data on per capita savings deposits, it is possible to obtain data on average savings deposits and on the number of savings deposit accounts per 1,000 inhabitants in an area. Average savings deposit accounts tended to be high in city sectors and suburban areas where the weighted average interest rate on savings

¹Partial correlation coefficient of .70.

²Correlation coefficient of .56.

³See pp. 20-25.

⁴See Footnote 1 on page 51.

deposits was high or where there was a narrow spread between the rates of interest paid on share capital and savings deposits.¹ Partial correlation analysis indicated that the spread between the interest rates was the most significant independent variable. In the previous chapter it was observed that the average size of savings deposits in all District metropolitan areas also tended to relate to the spread between rates of interest paid on share capital and savings deposits.²

As might be expected, the number of savings deposit accounts per 1,000 inhabitants in an area did not significantly relate to the rate of interest paid on savings deposits or the spread between interest rates paid on share capital and savings deposits.³ It is also of interest to note that the correlation coefficient of the number of savings accounts per 1,000 inhabitants and area per capita savings deposits was .81. This indicates that interarea differences in the number of savings accounts, rather than in the average size of accounts, is the major determinant of the size of per capita savings deposits in Chicago sectors and suburbs. This observation is consistent with the fact that both the average deposit size and per capita savings deposits are weakly related to interest rewards

¹Correlation coefficients of .47 and -.51, respectively. The data are in Table 55, Appendix D.

²See p. 21.

³The number of savings deposit accounts per capita in District metropolitan areas very weakly related to the spread between interest rates paid on share capital and savings deposits.

offered, but the relative number of accounts in an area is not related to interest rates paid. This indicates that other factors determine the willingness of individuals to maintain savings deposit accounts, and this willingness to maintain an account determines the relative per capita savings deposits in Chicago sectors or suburbs.

Total per capita stocks of savings deposits and share capital combined (insured savings) in Chicago geographic areas tended to be largest where the interest paid on insured savings was highest or where there were the most savings offices. Partial correlation analysis indicated that the weighted average interest rate paid on savings was the major variable relating to per capita suburban insured savings.¹ In Chapter II it was observed that this was not a significant relationship in District metropolitan areas.² Again, savings stocks appeared to be more responsive to interest rates within the Chicago metropolitan area than were savings in a comparative analysis of all District metropolitan areas.

It also appears that savings and loan associations have been able to attract the largest share of insured savings stocks in Chicago areas where the interest rate paid on share capital is high or the interest rate on savings deposits is low.³ It, therefore,

¹The partial correlation coefficient was .88. The multiple correlation coefficient was .94. The data are in Appendix D, Table 54.

²See p. 23.

³Partial correlation coefficients of .56 and -.37, respectively. The multiple correlation coefficient was .68. The data are in Appendix D, Table 54.

would appear that the location of insured savings within the metropolitan area of Chicago may be influenced by the rates of return paid on savings.

In Chapter II it was observed that the interest rate paid on share capital also related to the relative competitive position of savings and loan associations.¹ The per capita availability of savings and loan offices, however, was a significant variable in the District area analysis of savings stocks, but not in the analysis of savings stocks within the Chicago area. Not much significance should be attached to this comparison, however, because savings flows within Chicago sectors and suburbs and in the District metropolitan areas did not relate to the per capita availability of savings offices.

Savings Flows

An analysis of flows of insured savings within the Chicago metropolitan area was made for 1956 and 1957. Earlier data are not available. The inflow of savings deposits in Chicago city sectors and suburbs did not relate to the absolute or relative interest rate paid on savings deposits or the absolute or relative availability of commercial bank offices. The inflow of savings deposits, however, was high in areas where there were relatively many savings deposit accounts, but it was low where the average size of savings deposit accounts was high.² In the analysis of District

¹See p. 23.

²Partial correlation coefficients of .44 and -.56, respectively. The data are in Appendix D, Table 55. There was only one adequate survey of the average size of savings deposits and the number of savings deposit accounts available during the years considered in this study.

metropolitan areas it was also observed that savings inflows were low where the average size of savings deposit accounts was high, but there was no relation with the number of savings deposit accounts per capita. In Chapter II it was concluded that large accounts simply tend to be less active than small accounts.¹ In neither Chicago sectors and suburbs nor District metropolitan areas did the rate of savings deposit inflow relate to interest rate variables. However, in both analyses the inflow of savings deposits tended to increase in areas where there was an increase in the rate of interest paid on savings deposits.² Interarea differences in rates of savings deposit inflow are explained by variables other than rates of interest paid on savings deposits, but it appears that a significant number of savers do respond to changes in the rate of return paid on savings deposits.

As was the case in District metropolitan areas, the outflow of savings deposits in Chicago sectors and suburbs related very significantly to the rate of inflow of savings deposits.³ There was also a tendency for savings deposit outflow within Chicago areas to be high where average savings deposit balances were low, or where

¹See p. 29, footnote 2.

²The correlation coefficient was .40 for Chicago sectors and suburban areas in 1957, the only year for which data were available. The data are in Appendix D, Table 55.

³Correlation coefficients of .94 in 1956 and .97 in 1957. The data are in Appendix D, Tables 55 and 56.

there were relatively many savings deposit accounts.¹ Thus, both the inflow and outflow of savings deposits within Chicago areas were low where the average savings deposit balances were low, or where there were relatively many savings deposit accounts. The analyses of both savings deposit inflows and outflows indicate that largest accounts tend to be less active than smaller accounts. This conclusion is consistent with logic. One would expect small savings accounts to turnover more rapidly than larger investment-type accounts. The outflow of savings deposits very weakly related to the rate of interest paid on savings deposits in all District metropolitan areas, but this relationship was not significant in Chicago sectors and suburbs. This distinction, however, is not important because of the weakness of the relationship observed in the District areas.²

In both 1956 and 1957 net savings deposit balances in Chicago city sectors and suburbs increased most rapidly where the rate of interest paid on savings deposits was high.³ This relationship was also significant in the analysis of District metropolitan areas. Savings deposits also tended to increase most rapidly within Chicago areas in which there were relatively many savings deposit accounts per capita.⁴ Both the inflow and outflow of

¹Partial correlation coefficients of $-.51$ and $.54$, respectively. The data are in Appendix D, Table 55.

²See p. 27.

³Correlation coefficients of $.50$ in 1956 and $.43$ in 1957. The data are in Appendix D, Tables 55 and 56.

⁴Correlation coefficient of $.44$. The Loop area was excluded from the analysis. The data are in Appendix D, Table 55.

savings deposits were high where there were many savings deposit accounts, but the net increase was also significantly higher. These same relations were evident in the analysis of District metropolitan area savings deposit growth. In neither type of analysis did the average size of savings deposit accounts relate to the rate of growth of savings deposits. Savings deposits appear to be growing most rapidly where there are relatively many holders of savings accounts rather than where there are relatively more large savers.

Savings deposits in Chicago sectors and suburbs appeared to be growing at an increasing rate in 1957 where there was an increase in the rate of interest paid on savings deposits during 1957.¹ This same relationship was found to exist in the analysis of District metropolitan area savings trends.²

In the analysis of share capital growth within Chicago sectors and suburbs, no variables were significant in both 1956 and 1957. In Chapter II it was observed that there was a tendency for share capital to grow most rapidly in areas where the outflow of savings deposits was highest, but this relationship was not significant in the Chicago sectors and suburbs.³ Furthermore, the current relative competitive strength of savings and loan associations in Chicago sectors and suburbs did not relate to the absolute or

¹Correlation coefficient of .60. The data are in Appendix D, Table 56.

²See p. 30.

³See p. 33.

relative interest rate paid by savings and loan associations.¹ A suggested explanation for this condition is the fact that the average rate paid by savings and loan associations within Chicago areas exceeded the average rate paid by banks by a substantial margin. For instance, on December 31, 1957, the margin was 1.46 per cent, and savings and loan associations paid at least 1.00 per cent more than banks in all Chicago areas. On December 31, 1957, the rate paid by savings and loan associations averaged 1.07 per cent greater than the interest rate on savings deposits in all District metropolitan areas. In several cities the margin was .50 per cent or less.

A comparison of the major statistical relations described in this chapter and the previous chapter indicates that insured savings stocks appear to relate more significantly to interest rate variables in Chicago sectors and suburbs than in all District metropolitan areas. Flows of savings deposits were similar in their relation to interest rate variables in both analyses, but the rate of growth of share capital and the current competitive strength of savings and loan associations related to rates of interest paid only in the District area analysis. The results obtained from the analysis of per capita savings stocks may be discounted somewhat because of the inaccuracy of the population data used in the analyses and the fact that current trends in savings are generally of more interest than past performance.

¹The calculations performed were similar to those in Chapter II, pp. 41-45.

It was surprising that the rate of share capital growth and the relative competitive position of savings and loan associations within the Chicago city sector and suburban areas did not relate to the relative or absolute rate of interest paid on share capital. This indicates that there is no apparent tendency for individuals to shift savings to Chicago areas where the highest interest rates are paid on share capital. It might be noted, however, that on December 31, 1956, the average interest rate paid on share capital within Chicago areas was roughly 3 per cent, except in two suburban areas.¹ Nevertheless, the data indicate that savers do not necessarily invest in those highest paying areas.

This analysis of savings within Chicago has not proven to be very conclusive in its explanation of the competitive success of savings and loan associations. Savings and loan associations are growing rapidly in all areas of Chicago, and they account for well over half of the total increase in insured savings in the city.² This analysis, however, has failed to identify factors which consistently relate to the competitive strength of savings and loan associations in Chicago areas.

¹See Table 54 in Appendix D.

²In 1957 the average growth rate for all sectors and suburbs was 14 per cent. Eight per cent was the slowest rate of growth in any Chicago area. In 1957 the average share of insured saving flowing into savings and loan associations in all Chicago sectors and suburbs was 67 per cent.

CHAPTER IV

THE COMPETITIVE POSITION OF SAVINGS AND LOAN ASSOCIATIONS

The previous chapters have stressed that much of the competitive success of savings and loan associations is undoubtedly due to the fact that they pay higher rates of return on savings than banks. The intent of this chapter is to investigate why this condition exists. The traditional explanations of bankers will be discussed in particular detail. An attempt is also made to describe several of the other competitive advantages of savings and loan associations.

Earnings and Interest Payments

Legal Restrictions

Legal restrictions placed upon banks and savings and loan associations may be classified as restrictions which limit the ability of savings institutions to attract savers and restrictions which limit the way in which they may invest their assets. The most direct legal restriction on the ability of banks to attract savers is the existence of legally prescribed maximum interest rates permitted on time deposits. The Federal Reserve Board has established a current maximum interest rate payable on time deposits of three per cent.¹ This maximum compares with the mean weighted average

¹This maximum applies to all insured commercial banks whether or not they are members of the Federal Reserve System.

dividend rate paid by insured savings and loan associations in District metropolitan areas on December 31, 1957, of 3.26 per cent. Many District banks pay the legal maximum rate on savings deposits and undoubtedly there are banks that would be willing to pay higher rates if they were legally permitted.¹

There is no absolute legal maximum dividend payable by savings and loan associations, but both federal and state regulatory agencies investigate association dividend rates to insure that dividends are based on sufficient earnings and sound reserve practices. If these conditions are not satisfied, the associations may be required to reduce dividends offered to savers. In addition, it appears to be the philosophy of at least one Federal Home Loan Bank to encourage associations to pay relatively low dividends in order to keep home lending rates as low as possible.² This attitude is

¹For example, one of the largest banks in the United States in February 1959 petitioned the Federal Reserve Board to raise the legal maximum interest rate on time deposits to 3.5 per cent. The petition was denied.

²Mr. Fred Greene, President of the Federal Home Loan Bank of Indianapolis, in an address to savings and loan association employees at Kellogg Center, Michigan State University, on February 20, 1958, stated he has personally worked toward the objective of holding down member dividends paid. He even suggested it might be desirable in some cases for associations mutually to establish a maximum dividend rate in a given area.

It is quite likely that officers of Federal Home Loan Banks are able to influence the dividend policy of members. The Bank officers are in frequent contact with directors and officers of member associations. There is also a relatively close relationship between Bank officers and savings and loan association trade organizations. Member lines of credit may also be influenced by a Federal Home Loan Bank's evaluation of member association management practices.

evidence of the depression born philosophy of concentration on serving the interests of borrowers. Many of the present officers of the Federal Home Loan Banks were employed by the System in the 1930's when the principal desire of the Federal Home Loan Bank System was to encourage the flow of funds into private home construction. It was believed that low interest rates on home mortgages were one way to achieve this objective. However, an association with good reserves is permitted by Federal Home Loan Banks to pay whatever dividend it chooses, so long as its strong reserve position is maintained. The Federal Home Loan Banks, nevertheless, may exert informal pressure on associations which seek to pay very "high" dividends.

The Federal Reserve Board is much stricter than the Federal Home Loan Banks in regulating the interest rates members may pay on savings. The Federal Reserve System establishes a maximum national interest rate, but each regional Federal Home Loan Bank merely exerts informal pressure to maintain interest rates at the level desired for the District.

It is really difficult to understand why the Federal Reserve establishes a maximum interest rate payable on time deposits. It is true that banks very aggressively raised interest rates paid on time deposits during the 1920's. It is alleged that the effect of this action was to attract "demand" deposits into time accounts. One of the Federal Reserve's objections to this was that it allowed banks to maintain low legal reserves on accounts which were essentially demand accounts. The greatest "abuse," in the opinion of the

Federal Reserve, was the attraction of business demand accounts into time accounts with the tacit agreement that the accounts would be withdrawable on demand.¹ However, businesses now are not permitted to hold time deposits available for withdrawal with less than 30 days notice. This regulation effectively prevents banks from attracting business "demand" deposits into time deposits.

Another objection to bank practice in the 1920's was that banks engaged in "ruinous price competition" for savings deposits which endangered the earnings of all banks. The argument is that banks must earn adequate income to cover expenses and add to reserves if they are to be sound financial institutions. It cannot be disputed that banks as a group may prosper more with low interest payments if competition from other savings institutions is weak. During the 1920's, the banks did not face really effective competition from credit unions and savings and loan associations.

Today, it is not at all clear that low interest rates on time deposits are in the best interests of banks. Many bankers insist that banks must match the interest rates paid by competing institutions in order to attract sufficient savings. In spite of the current competitive conditions and post-depression reforms in bank regulations, the experiences of the 1920's still appear to guide the Federal Reserve's policy on time deposit interest rates. Banks may not legally compete with the interest rates paid on savings by other

¹American Bankers Association, Economic Policy Commission, Member Banks Reserve Requirements (New York, 1957), p. 17.

major financial institutions.

It should also be emphasized that banks suffer a legally imposed limit on the size of their market as well as the price they may offer. It has already been observed that the banks may offer passbook accounts only to private individual savers and nonprofit associations. Corporations, governments, and others must purchase illiquid time certificates or accept other more liquid but lower yielding types of non-passbook time deposits. It is difficult to understand why banks may not pay interest on business deposits payable on demand if the banks found it profitable to do so. The Federal Reserve could require that such accounts meet the same reserve requirements as other commercial demand deposits. It is very likely that banks would not find it profitable to pay interest on very active accounts.

Savings and loan associations also frequently have legal limits on the type of savers they may attract. It is not uncommon for states to stipulate that share capital is not a legal investment for public funds, trust funds, school funds, or pension funds.¹ These laws appear a bit curious in view of the roughly equal security of principal provided by share capital and time deposits in commercial banks.

The above comments indicate that banks on balance suffer the most onerous legal restrictions on their ability to attract savers. Probably few bankers believe that banks could match the high divi-

¹Russell, Chapt. 28.

dend rates of savings and loan associations in many areas if such an effort were legally possible. Nevertheless, banks could probably attract more business savings if they were permitted to offer pass-book type accounts to business.

Savings and loan associations are much more limited in their range of legal investments than are banks. Federal savings and loan associations may only invest in first mortgages on real estate including FHA and VA mortgages, bonds guaranteed by the U. S. Government, stock of Federal Home Loan Banks, or deposits in insured financial institutions.¹ Banks may invest in virtually any non-speculative type financial asset. The list of investments permitted banks but prohibited federal savings and loan associations includes municipal and corporation bonds, commercial loans, and consumer loans, among others.

It should also be pointed out that insured savings and loan associations generally may not make mortgage loans to borrowers located more than 50 miles away from the lending office.² This restriction is intended to insure that savings and loan associations remain local lending institutions. Banks, particularly

¹U. S., Code Annotated, title 12, sec. 1464c, state chartered savings and loan associations in several states are allowed a slightly longer list of permitted investments.

²Associations may exceed the 50 mile limit in some cases with prior approval of the Federal Home Loan Bank Board, or they may engage in participation loans which originate more than 50 miles from the lender's main office. Participation loans, however, are rare. U. S., Code Annotated, title 12, sec. 1464c.



large city banks, can and do purchase mortgages and other types of loans originating many miles from the lender. The effect of the restrictions on savings and loan associations are generally to prevent them from lending in areas where mortgage loans are relatively most profitable.¹

Banks, therefore, are most restricted in their ability to attract savers; but savings and loan associations are most limited in their range of legal investments. In a later section of this Chapter, the earning significance of the investment practices of banks and savings and loan associations will be discussed in some detail.

The Tax Advantage of Savings Associations

Perhaps the most common argument advanced by bankers to explain the dividend paying ability of savings and loan associations is their alleged tax advantage. Currently, savings and loan associations are not taxed by the Federal Government on net earnings that are credited to reserves unless reserves, surplus, and undivided profits exceed 12 per cent of total share capital. Any addition to undivided profits is taxable by the Federal Government.

¹The borrowing and lending activities of Federal Home Loan Banks encourage some flow of funds into areas of greatest demand, but total Federal Home Loan Bank loans are a small fraction of total member mortgage loans (3% on December 31, 1956). U.S., FHLBB, Source Book, 1957, pp. 8 and 11. In addition, Federal Home Loan Banks do not make loans for mortgage expansion outside of their own districts. For instance, surplus mortgage funds of savings and loan associations in New England could not be transferred to profitable west coast mortgage markets.

Most associations credit all earnings after dividends to loss reserves, and most associations have not yet approached the 12 per cent limit on tax free additions to reserves.¹ The net effect of the present law is to exempt most associations from Federal income taxation.

In defense of their tax status, savings and loan associations argue that they are mutual institutions fostering thrift and home financing and, therefore, should not be taxed. Of course, banks also foster thrift and may encourage home financing. The fact that savings and loan associations are mutuals, however, affords them special tax status because of the Federal Government's reluctance to tax mutual firms. This policy is based upon the assumption that returns to members of mutual organizations represent "refunds" rather than "profits." The alleged merits and evils of this theory as yet have not been satisfactorily resolved.

An additional argument in support of the tax status of savings and loan associations is the fact that regulatory agencies require them to make annual additions to reserves. Today all insured associations are required to credit up to 25 per cent of

¹Loss reserves of savings and loan associations are usually carried on the liability or claims side of their balance sheets. In contrast, loss reserves of banks are usually carried as asset valuation reserves or as offsets to the stated value of balance sheet assets. Insurance or loss reserves of savings and loan associations are best compared with the capital and surplus accounts of banks. Their purpose is to cover contingent losses rather than probable losses. Surplus and undivided profits accounts are relatively minor forms of savings and loan association "capital" because additions to these accounts are generally taxable.

their earnings before dividends, or at least .3 per cent of their share capital outstanding, to reserves until reserves equal 5 per cent of share capital. Insured associations are allowed twenty years to build reserves up to 5 per cent of share capital. After twenty years, and after reserves equal 5 per cent of share capital, the Federal Savings and Loan Insurance Corporation requires that associations credit 10 per cent of current net earnings to reserves until reserves equal 12 per cent of share capital.¹ Most associations add to reserves more rapidly than is required by the Federal Savings Loan Insurance Corporation.²

The purpose of reserves is to prevent impairment of capital that might result from capital losses on loans and investments. Savings and loan associations have no original or acquired paid-in capital or surplus to serve as a "capital" cushion. They may only acquire "capital" by crediting net income to earned surplus, reserves, or undivided profits. In contrast, joint-stock banks are organized with paid-in capital stock and surplus. This equity may be expanded by the sale of additional ownership shares or by retaining earnings.

Currently, banks and savings and loan associations have roughly equal ratios of capital to total assets. On December 31,

¹U. S., Code of Federal Regulations, title 24, Ch. 1, sec. 163. 13 a, c.

²Several states require state chartered associations to accumulate reserves more rapidly than is prescribed by the Federal Savings Loan Insurance Corporation. United States Savings and Loan League, letter sent on request.

1957, reserves plus undivided profits of insured savings and loan associations in the United States averaged 6.8 per cent of total assets.¹ On the same date the total capital accounts of insured commercial banks averaged 7.7 per cent of their total assets.²

The next question is to evaluate the adequacy of the current capital position of the commercial banks and savings and loan associations. The Federal Reserve has been consistently arguing that member banks should expand their equity. A ratio of capital to assets of 10 per cent has been traditionally suggested by the Federal Reserve. The current unofficial requirement of the Federal Reserve System is that the capital ratio of member banks equal the average of System members. Such a requirement has the obvious effect of gradually raising capital requirements. Insured savings and loan associations are now required to expand reserves plus surplus and undivided profits until the total of such accounts equals 12 per cent share capital. The United States Savings and Loan League suggests that "capital" of savings and loan associations should equal 15 per cent of share capital liability.³

¹U. S., Federal Home Loan Bank Board, Savings and Home Financing, Source Book, 1958, (Washington, 1958), p. 11, (hereafter cited as U. S. FHLBB, . . . Source Book, 1958).

²U. S., Federal Deposit Insurance Corporation, Annual Report, 1957, (Washington, 1958), p. 37.

³Russell, p. 131. On December 31, 1957, the ratio was 7.8 per cent. U. S. FHLBB, . . . Source Book, 1958, p. 11.

Both commercial banks and savings and loan association, therefore, are under pressure from their regulatory agencies to expand their "capital." However, the present Federal income tax law allows savings and loan associations an opportunity to make tax free additions to "capital" until reserves, surplus, and undivided profits are up to the ultimate required limit of 12 per cent of share capital. Banks must pay taxes on all net income without provision for additions to capital.¹ Banks, therefore, receive no tax encouragement to retain

¹On the average, banks have been deducting about 10 per cent of their incomes for additions to asset valuation reserves. In 1957 the rate was 11.8 per cent. U. S., FDIC, Annual Report, 1957, p. 131. These reserves are for the purpose of absorbing estimated losses on securities and loans. Banks may make tax free additions to these reserves until the reserves equal a given authorized per cent of securities and loans. The upper limit is usually based on the average rate of the bank's losses on loans and investments during a twenty year period including the 1930's. Because there is little likelihood that banks will ever incur losses equal to the experience of the 1930's, banks really are allowed to make some tax free additions to "capital." This fact, however, is not apparent in bank balance sheets.

There is some question whether banks, in the aggregate, will be able to continue making additions to asset valuation reserves equal to roughly 10 per cent of their incomes. The reported figure includes additions made by many banks which are larger than would be justified by their current rate of asset expansion. Many banks are still "catching up" on their asset valuation reserves. Total assets of insured commercial banks have been expanding at an average rate of 4.3 per cent since 1949. U. S., FDIC, Annual Report, 1957, p. 29. After all banks have asset reserves at the maximum level allowed, banks could only receive tax credit for additions to reserves if loans and investments were expanded. If one assumes that the asset valuation reserves of all insured commercial banks were as little as one half of their allowable maximum on December 31, 1957, and that bank earnings in 1957 were normal, an average annual expansion of bank loans and investments of roughly 4 per cent would eventually allow banks to make additions to asset valuation reserves equal to about 5 per cent of their net earnings, or at about half the current rate. Derived from data in the U. S., FDIC, Annual Report, 1957, pp. 110 and 130.

earnings for the purpose of capital expansion.¹

If it is assumed that both commercial banks and savings and loan associations make periodic additions to reserves from current earnings, it may be clearly seen that additions to capital are much more costly to banks than to savings and loan associations. Each dollar credited to the surplus of a commercial bank reduces dividends to stockholders by one dollar, but the bank may alternatively increase interest payments to savings depositors by roughly two dollars.² Each dollar credited by savings and loan associations to reserves reduces the ability of the association to pay dividends on savings by only one dollar. There is definitely something to the argument that savings and loan associations enjoy a tax advantage which has the potential of improving their competitive position.

This argument, however, is impossible to evaluate statistically without making some rather arbitrary assumptions. In 1956 insured commercial banks in the United States earned \$1,217 million after taxes, or \$1,987 million before Federal taxes, and they added \$600 million to capital from profits.³ The banks could have deducted

¹It is interesting to contrast the attitudes of the trade associations of commercial banks and savings and loan associations on the question of capital adequacy. It was noted above that the U. S. Savings and Loan League favors relatively large and expanding loss reserves or "capital." The American Bankers Association maintains that the current capital position of its membership is satisfactory. The fact that current tax laws make it relatively more painful for banks to expand their capital probably explains their reluctance to add to capital.

²Interest payments are deductible from federal income tax liability. Additions to surplus must come from earnings after taxes.

³U. S., FDIC, Annual Report, 1956, p. 117.

\$600 million more from their income subject to federal income taxes, had they received the tax treatment accorded savings and loan associations. If it is assumed that demand and savings deposits contribute proportionately equally to bank profitability, the savings departments of commercial banks would ultimately have had about \$159 million more funds available to use for interest payments on savings deposits, or \$83 million available for dividend payments to stockholders.¹ If the savings departments of banks elected to use all additional funds realized from the tax liberalization for interest payments to savers, the banks could have increased interest rates paid in 1956 by an impressive 19.7 per cent.² It is, however, likely that full tax deductibility of additions to capital would encourage banks to retain a higher proportion of earnings than is their current practice without such liberal tax treatment. There would be a clear tax incentive to build up capital by retaining earnings rather than selling stock. It is also possible that the availability of higher earnings may encourage directors to declare higher dividends.

In 1956 insured commercial banks added \$307 million to their capital by the sale of common stock.³ If this additional amount had been added to the capital of insured banks by further retaining

¹Time deposits were 26.5 per cent of total deposits of insured commercial banks on December 31, 1956. .265 (\$600 million) equals \$159 million. This computation assumes that the earnings of each bank department are separately accounted. In practice, few banks have a clear impression of the earnings of their savings departments, but this assumption at least represents a goal of bank management. \$83 million equals .52 (\$159 million), or the additional net earnings after taxes of the savings department.

²Total interest payments to time depositors were \$800 million in 1956. U. S., FDIC, Annual Report, 1956, p. 117.

³Ibid., p. 113.

earnings, the savings departments of banks would have been able to increase interest payments to depositors by 9.7 per cent.¹ However, there is the additional possibility that banks would elect to expand their total capital faster if there were liberal tax treatment of retained earnings. If this were true, savings departments might have very little extra funds for interest payments.

Complete tax deductibility of additions to capital might also encourage banks to increase stockholder dividends. If the banks' dividend payout ratio of 50.5 per cent in 1956 were assumed to be unchanged after the banks were allowed the more liberal tax treatment, and if the level of bank additions to capital were unchanged, the savings departments could have increased interest payments on time deposits by \$80 million.² This would have allowed banks to increase interest payments only 10 per cent over the actual rate paid in 1956. If tax deductibility of additions to capital encouraged banks to significantly increase both their retained earnings and their dividends, it is unlikely that there would be much, if any, money left to increase interest payments to savers.

If the assumptions contained in the analysis are reasonable, it would appear that full tax deductibility for earnings added to

¹This assumes full tax credit for capital additions of \$907 million. 9.7 per cent was computed as follows: \$600 million tax deduction less \$307 million equals \$293 million. $(.265) (\$293 \text{ million})$ equals \$77.6 million. \$77.6 million would have allowed savings departments to increase interest payments to savers 9.7 per cent.

² $(.505) (\$159 \text{ million})$. This calculation assumes that rates of interest paid on savings deposits are based on estimates of future income and dividend payments.

capital in 1956 would have caused commercial banks to increase their interest payments on savings deposits by no more than 19.7 per cent, and more likely by a much lower amount. The maximum possible increase of 19.7 per cent in interest rates paid on time deposits undoubtedly would have significantly improved the position of banks in 1956. On December 31, 1956, the average levels of interest rates paid on share capital and savings deposits in District metropolitan areas were 2.84 per cent and 1.86 per cent respectively. A 19.7 per cent increase in interest rates paid by banks would have increased the average rate paid by banks in District metropolitan areas to 2.23 per cent. The statistical analysis section of this study illustrates that the rate paid on savings deposits and the spread between rates paid on savings deposits and share capital are major determinants of the banks' competitive position. Even a 10 per cent increase in interest rates paid by banks would likely have a favorable effect on the level of savings deposits in many banks.

Bankers have not been unanimous in their reaction to the apparent inequality in the income tax treatment of bank and savings and loan associations. Many bankers have suggested that the proper course of action is not to allow savings and loan associations to make tax free additions to reserves. Gaylord Freeman of the First National Bank of Chicago, however, points out that it is not at all certain that a change in the tax law governing additions to savings and loan association reserves would be in the best interests of banks.¹

¹Freeman, p. 54.

He reasons that it is quite possible that a change in the tax law might raise not lower dividends of savings and loan associations. It should be remembered that savings and loan associations generally make more rapid additions to reserves than are required by the Federal Savings and Loan Insurance Corporation.

The average savings and loan association on December 31, 1956, had reserves plus undivided earnings equal to 7.7 per cent of share capital; so that they were required, on the average, to credit no more than 10 per cent of earnings to reserves. In recent years associations have been crediting roughly 30 per cent of their earnings to reserves.¹ This means that in 1956 the average savings and loan association would have been able to increase its dividend rate and make required additions to reserves if tax free additions to reserves were not permitted. The average savings and loan association could have paid out about 80 per cent of its before tax earnings as dividends and still make legal minimum additions to reserves.² Such a high pay-out ratio, however, could not be continued forever if the annual rate of growth of savings and loan associations continues to be relatively high. Eventually the associations' ratio of reserves to share capital would fall below the allowable

¹Federal Home Loan Bank Board, 1955 Combined Financial Statements, (Washington, 1956), p. 47.

²This calculation assumes that the FSLIC would require associations to credit roughly 20 per cent of their before tax earnings to reserves if additions to reserves were taxable.

minimum.¹ During the ten years, 1945-1955, the share capital of all savings and loan associations increased at an average rate of 16 per cent per year.² In spite of the fact that member associations retained an average of 32 per cent of their net income during these years, their ratio of reserves and undivided profits to share capital failed to show any improvement.³ If savings and loan associations continue their past rapid rate of growth, they must continue to retain about 30 per cent of their earnings in order to maintain their current reserve positions.

It is probable that savings and loan associations would always be allowed tax deductions for bad debt reserve additions equal to at least 5 per cent of their income. If taxes were payable on other additions to reserves, savings and loan associations would be able to pay out only about 43 per cent of their earning as dividends in order to maintain their reserve ratios compared with 70 per cent currently paid.⁴ This assumes that savings and loan associations continue to grow very rapidly and that they elect to maintain reserves substantially in excess of legal requirements. It would

¹It is very possible that the FSLIC would allow associations more time to build up reserves if a change in the tax law made the current requirements too burdensome.

²U. S., FHLBB, . . . Source Book, 1957, p. 10.

³U. S., FHLBB, 1955 Combined Financial Statements, p. 47.

⁴ $(.48 (.52) \div .05)$ (earning) = $(.30)$ (earnings), and $.43 = 100 - (.52 \div .05)$. $.05$ = bad debt additions to reserves and $.48$ = after tax portion of before tax earnings credited to reserves.

appear then that savings and loan associations might reduce their dividends as much as 39 per cent if restrictive tax legislation were enacted.¹ Such a decrease in association dividends would seriously injure the competitive position of savings and loan associations.

It might, however, be noted that as restrictive tax legislation had the effect of reducing the rate of growth of savings and loan associations, they would be able to pay out a higher per cent of their earnings and still maintain their reserve positions. It is also quite likely that many associations would elect to sustain a weakening in their reserve positions rather than to reduce dividends substantially. Many associations are undoubtedly very much concerned with maintaining a rapid rate of share capital growth.² It is also unlikely that savings and loan associations will continue their current very rapid percentage rate of growth regardless of the

¹ - .43/.70.

²The objectives of officers and directors of savings and loan associations must be evaluated in order to suggest their likely reactions to increased taxation. Some managements are undoubtedly primarily concerned with the "soundness" of their institution. Such associations would be unlikely to reduce their reserve positions in spite of the tax burden of maintaining them. It is perhaps more common for managers of associations to be primarily concerned with the rate of growth of their institutions. Growth may justify higher personal salaries and may give managers the satisfaction of "success" in the performance of their duties. It is also likely that many savings and loan managers equate the growth of savings and loan associations with improvement in social welfare. A statistical study of this question concluded, on the basis of interviews with savings and loan managers, that share capital growth is the most common goal of association management. Taxation of savings associations would possibly tempt many associations to sacrifice their reserve position in order to maintain favorable rates of payment to savers. Fred Winfield Kniffen, "Location Problems of Savings and Loan Associations," (unpublished Ph.D. dissertation, University of Indiana, 1955), pp. 40-42.

4. The fourth part of the document provides a summary of the findings and discusses their implications for future research and practice. It notes that the results of the study suggest that there is a need for further investigation into the factors that influence the effectiveness of the interventions being studied. The text also offers recommendations for how these findings can be applied in real-world settings to improve outcomes.

5. The final part of the document is a conclusion that reiterates the key points of the study and expresses the authors' confidence in the results. It states that the study has provided valuable insights into the effectiveness of the interventions and has identified areas for further research. The authors conclude that the findings have important implications for the field and hope that they will contribute to the development of more effective interventions in the future.

condition of tax legislation. It would be perhaps realistic to suggest that savings and loan associations might reduce their dividends as much as 10 per cent with restrictive tax legislation. Such a reduction undoubtedly would insure the competitive position of savings and loan associations, but it would still allow most savings and loan associations to pay significantly higher rates on savings than savers might obtain in commercial banks.

This discussion of taxation has been limited to Federal income taxation. It should be noted that savings and loan associations generally bear at least as high state and local taxes as banks bear. A U. S. Savings and Loan League study concluded that savings and loan associations pay considerably higher state and local taxes per dollar of assets than banks pay.¹

Legal Reserve Requirements

Another earnings advantage of savings and loan associations alleged by bankers is the fact that only member banks, not savings associations, are required to maintain nonearning legal reserves on deposit with Federal Reserve Banks. Current legal reserve requirements on time deposits are 5 per cent. Savings and loan association spokesmen frequently hasten to point out that associations typically maintain cash plus deposits in Federal Home Loan Banks equal to more than 5 per cent of their share capital liability.²

¹Russell, pp. 116-18.

²On December 31, 1956 cash plus deposits of member savings and loan associations were 6 per cent of share capital. U. S., FHLBB, . . . Source Book, 1957, p. 11.

The implication is that savings and loan associations maintain "cash" equal to legal reserves on member commercial bank savings deposits. An evaluation of this argument must involve a comparison of all the liquidity reserves supporting share capital and savings deposits.

Savings and loan associations, on the average, maintain liquidity reserves in excess of the legal minimum of 6 per cent of share capital, but not in excess of their last six months' withdrawals experience, as informally suggested by Federal Home Loan Banks. On December 31, 1956, the suggested liquidity reserves and actual liquidity reserves, in the form of "cash" plus U. S. Governments, were about 14.1 per cent and 13.2 per cent, respectively, of the share capital of insured associations.¹ Most of the remainder of the assets of savings associations were relatively illiquid mortgages. It is impossible to segregate the assets of commercial banks that support demand and savings deposits, but it is very likely that commercial banks maintain at least as much asset liquidity

¹Ibid., pp. 11 and 18. The liquidity position of insured savings and loan associations slipped steadily from 1947-1956 as they reduced their holdings of U. S. Bonds in order to make mortgage loans. As recently as December 31, 1952, cash plus U. S. Government bonds totaled 16.1 per cent of share capital. A survey of 1,529 savings and loan associations conducted by the U. S. Savings and Loan League indicated that 23.5 per cent of reporting associations on December 31, 1955, held cash plus U. S. Governments equal to less than 10 per cent of their share capital. 34.8 per cent of the associations held cash plus Governments equal to 15 per cent or more of share capital. It appears that a substantial number of associations were extremely illiquid in 1955. It should, however, be noted that 1955 was a year of unusually heavy mortgage lending by savings associations. United States Savings and Loan League, Report of the Special Committee to Study the Federal Home Loan Bank System, (Chicago, 1956), p. 26, (hereafter cited as USSLL, Report of the Special Committee . . .).



behind savings deposits as savings and loan associations maintain in support of share capital liability.

From a competitive standpoint, the major consideration involved in a discussion of asset reserves is that fact that only member banks must maintain nonearning legal reserves. This fact is not offset by institutional differences in liquidity reserves. The net result is that savings and loan associations are able to maintain a higher proportion of their assets in the form of earning investments than would be the case if they were required to maintain nonearning legal reserves on deposit with the Government.

There is, however, one reasonably strong counter argument to the proposition that banks are competitively injured by the requirement that they maintain legal reserves. The legal reserves of banks basically serve the purpose of limiting and controlling the power of commercial banks to create money. Legal reserves, therefore, limit the profits that banks may make from creating money. Savings and loan associations don't create money. They merely profit from their function as a financial intermediary or middleman between lenders and borrowers of money. A requirement that savings and loan associations maintain legal reserves equal to 5 per cent of their share capital on deposit with the Federal Reserve or a similar government institution would not be very effective in limiting their rate of lending.¹ Savings and Loan associations hold an amount equal to

¹Additional member deposits with the Federal Home Loan Banks would not limit the expansionary effect of share capital growth because the Federal Home Loan Banks are also financial intermediaries. They borrow money from the public and members and lend to members and the U. S. Government (purchase U. S. Bonds). Member associations

less than 5 per cent of their share capital in commercial bank demand deposits. A requirement that savings and loan associations hold legal reserves equal to 5 per cent of their share capital on deposit with the Federal Reserve or a similar Government institution, would only mean that at least 90 per cent of new share capital likely would be offered to prospective borrowers.

This certainly would not do much to reduce the tendency for the growth of savings and loan associations to increase the supply of loanable funds. Reserve requirements could also achieve this goal if they depressed the rate of growth of savings and loan associations. There would be some tendency for legal reserve requirements on savings and loan associations to reduce the earnings of associations. Reduced earnings would tend to reduce the dividends paid by associations. Reduced dividends would tend to depress the rate of growth of savings and loan associations. However, it is likely that relatively high legal reserve requirements would be needed to reduce significantly the rate of growth of savings and loan associations. For example, it is probably correct to assume that legal reserve requirements on share capital of 5 per cent would reduce earning assets by 5 per cent. A 5 per cent reduction in earning assets would likely reduce gross income by 5 per cent.²

already hold deposits with Federal Home Loan Banks equal to 2 per cent of their share capital. Any increase in this amount would not directly reduce the flow of loanable funds because of the lending activities of Federal Home Loan Banks. In order to have any effect on the supply of loanable funds, a requirement that savings and loan associations hold deposits with Federal Home Loan Banks would have to include a major change in the administration of the Banks. They would have to be willing to maintain idle commercial bank deposits equal or nearly equal to member deposits.

²Earning assets for most associations are at least as high a per cent of total assets as is share capital.

It is difficult to estimate the reduction in net income before dividends because of the problem of cost allocation; however, it is clear that net income would decline by more than 5 per cent. If it is assumed that 25 per cent of the operating expense of member savings and loan associations may be charged to cost of asset management, a 5 per cent reduction in member earning assets in 1956 would have reduced their net income roughly 6.2 per cent.¹ If associations pay out 70 per cent of their net earnings as dividends, legal reserve requirements of 5 per cent perhaps would reduce association dividends paid by 4.3 per cent. It is doubtful that such a small reduction would have much effect upon the rate of growth of savings and loan associations. It is unlikely, therefore, that legal reserve requirements on share capital would be effective unless they were significantly higher than reserve requirements on time deposits in commercial banks. A requirement that savings and loan associations maintain reserves equal to the requirement on commercial bank time deposits would not injure the competitive position of savings and loan associations significantly, and it would not effectively control the expansionary effects of share capital growth.

If savings and loan associations lost both their ability to retain earnings without tax penalty and their freedom from legal reserve requirements, it might be expected that associations would reduce their dividends paid by about 14 per cent. Such reductions would undoubtedly materially affect the competitive position of

¹Based on data in U. S., FHLBB, 1956 Combined Financial Statements, pp. 50-51.

savings and loan associations. Most associations would still be able to pay somewhat higher returns on savings than are paid on the average by banks, but it is likely that their rate of growth would decline significantly.¹

Investment Practices of Savings Associations

Competitors of savings and loan associations frequently argue that a major earnings advantage of savings and loan associations is the fact that a very large percentage of their assets is invested in high yielding mortgages. On December 31, 1956, insured savings and loan associations held 83.7 per cent of their assets, or 96.4 per cent of their share capital, in the form of mortgage loans.² In 1955, commercial banks held mortgages equal to 42 per cent of their savings deposits.³ Most banks may not hold mortgages in excess of 60 per cent of their savings deposits. As long as savings and loan associations maintain required liquidity reserves in the form of cash and U. S. Governments, they are free to invest the remainder of their funds in mortgages. Bankers argue that savings and loan associations are allowed to sacrifice over-all liquidity

¹On December 31, 1956, District interest rates paid on share capital averaged 53 per cent greater than rates on savings deposits. A 14 per cent reduction in the interest rate paid on share capital would have reduced this margin to 32 per cent. A reduction in the rate of growth of savings and loan associations would reduce the supply of loanable funds in the economy unless banks were allowed to expand more rapidly. This point is discussed in some detail in Chapter VIII.

²U. S., FHLBB, . . . Source Book, 1957, p. 11.

³Freeman, p. 27.

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for high returns.¹

The next question is to determine if there is any logical reason why share capital may be supported by less liquid assets than savings deposits. One possible justification for the distinction is the theory that liquidity reserves should be a function of the turnover of deposit liability. This theory includes the assumption that prospective net withdrawals of deposits are directly related to their past velocity. This theory has been a basis for differential reserve requirements on savings deposits and demand deposits, and the general requirement that the liquidity of banks must reflect the distribution of their deposits between demand and time obligations. The liquidity reserves of member savings and loan associations suggested by Federal Home Loan Banks are also based upon historic turnover.

In the case of bank demand and time deposits there is also some justification for requiring liquidity reserves to be relatively higher on demand deposits than on savings deposits, because the level of demand deposits is much more cyclically sensitive than the level of time deposits. (See Appendix C, Chart A) This argument, however, does not apply in the case of share capital and savings deposits. Since 1938 both types of savings have steadily increased.

¹Mutual organization may be one reason why directors of savings and loan associations are willing to tolerate a considerably less liquid asset structure than commercial banks. If illiquidity causes default of a savings and loan association, there is no stockholder equity sacrificed. Savers are protected by savings account insurance. Stockholders in commercial banks would be quite unwilling to risk a liquidity structure that might lead to default, and the likely destruction of their invested equity.

Earlier comparisons of experience are not very useful due to the gradual extension of insurance coverage on savings deposits and share capital in the 1930's which materially altered the investment character of these types of savings. From June 1947, to June 1958, the largest single monthly decline in time deposits was equal to 1.2 per cent of total time deposits.¹ In the same time period, the largest monthly decline in share capital equalled .005 per cent of total share capital balances.² Very little liquidity was required to meet such small net demands made upon the insured savings institutions.

If regulatory bodies are correct in assuming that historic turnover indicates potential liquidity demands on savings institutions, it is logical to expect that the assets supporting savings deposits should be more liquid than assets supporting share capital. Savings deposits have a historic turnover of about .50 compared with recent share capital turnover of about .32. History so far, however, has failed to indicate that either insured banks or savings and loan associations have been faced with the necessity of being very liquid.

It may also be argued that savings and loan associations are

¹June 1947 is the earliest month from which a continuous monthly time series is available. "Principal Assets and Liabilities of All Banks, By Classes," Federal Reserve Bulletin, XXXIII-XLIV (Monthly issues, 1947-1958).

²U. S., Home Loan Bank Board, Statistical Summary, 1949-1950 (Washington, 1949-1950); U. S., FHLBB, ... Source Book, 1957-1958; and U. S., Federal Home Loan Bank Board, "Flow of Savings in Savings and Loan Associations," January 1950 - December 1953.



justified in accepting a less liquid asset structure than banks because savings associations are reasonably certain that Federal Home Loan Banks will supply substantial liquidity over long periods of time if their members need such support. Members may apply to the Federal Home Loan Banks for loans with maturities up to ten years, in amounts up to 50 per cent of their share capital, for liquidity needs. It appears that the Federal Home Loan Banks are both able and willing to insure that members will not be faced with disastrous liquidity crises.

The willingness of the Federal Reserve to supply liquidity to its members in time of need is less clearly defined. It is true that during the 1930's the Federal Reserve was not able to prevent critical liquidity shortages in member banks. This was principally because the Federal Reserve, at that time, was only willing to lend on eligible paper and U. S. Government obligations, both of which were in inadequate supply. More recently the Federal Reserve Banks have been able to lend on virtually any sound money market instrument, and of course, there has been a tremendous expansion in bank holdings of U. S. Government securities compared with the level in the 1930's. It is likely the Federal Reserve now would act to supply needed liquidity in cases of severe deposit withdrawals on members. However, in the absence of formal lines of credit, member banks may not accurately predict potential Federal Reserve support of their liquidity needs. It would, therefore, appear that conditions exist to cause managers of commercial banks to weigh central bank lending willingness less heavily in their asset liquidity plan than managers of savings and loan associations.

The question of adequacy of the liquidity of banks and savings and loan associations, in the final analysis, depends upon the attitudes and policies of their respective regulatory agencies. Both the Federal Reserve Banks and the Federal Home Loan Banks are pledged to bail out members in a liquidity crisis. It is essentially up to these agencies to establish rules to insure that their liquidity guarantee is not "called" too often. The Federal Reserve has taken more initiative than the Federal Home Loan Bank System to insure that members rely principally upon their own resources to supply needed liquidity.¹ The Federal Home Loan Banks have allowed some of their members to remain relatively illiquid.² The net result is

¹Some observers argue that it is the duty of banks to remain more liquid than nonbanks because "money" is the medium of exchange. For instance, see: John G. Gurley and E. S. Shaw, "Financial Aspects of Economic Development," American Economic Review, XLV (September, 1955), p. 536. It is certainly true that the economy would suffer greatly if the public lost confidence in the liquidity of banks. However, if the public were to lose confidence in the liquidity of major nonbank financial institutions such as savings and loan associations, there also could be severe economic repercussions. Public policy must insure that all major investment institutions are relatively liquid or that savers are fully aware of the possible illiquidity of alternative institutional investments.

²The United States Savings and Loan League, the major trade association of the savings and loan associations, has suggested that Federal Home Loan Banks should be much more aggressive in policing member liquidity. Greater use of the weapon of credit refusal was suggested. The League also suggests that the Federal Home Loan Banks revise their concept of liquidity calculation. Currently liquidity is calculated by relating cash plus U. S. Government obligations to share capital. This technique is misleading because it fails to include all claims to the liquid assets of savings and loan associations. Federal Home Loan Bank advances constitute a major claim on the assets of associations. The advances, furthermore, tend to reduce the "line of credit" of the associations with the Federal Home Loan Banks. This line of credit is itself the major liquidity support of the associations. The League suggests that member liquidity should be expressed as liquid assets less

that savings and loan associations probably may invest their assets more profitably than banks.

Unfortunately, there is no way of accurately estimating the relative earnings advantage that savings and loan associations obtain by holding less liquid assets than banks. A substantial portion of the loans of commercial banks are of shorter maturity than mortgage loans, but they are perhaps more profitable. Personal loans and sales finance loans are the most obvious examples. In fact, many banks do not make as many mortgage loans as they are legally permitted.¹ Nevertheless, it seems reasonable to assume that savings and loan associations are permitted to invest savings somewhat more profitably than banks.²

F.H.L.B. advances as a per cent of share capital. Actually both concepts of liquidity are useful and should probably be used to understand the liquidity structure of savings and loan associations. USLL, Report of the Special Committee. . ., pp. 34-38, 40-45.

¹Insured commercial banks held real estate loans equal to 40 per cent of their time deposits on December 31, 1957. Regulatory agencies of banks generally allow real estate loans to equal 60 per cent of time deposits. U. S., FDIC, Annual Report, 1957, pp. 111-12.

²It is impossible to separate bank assets into assets supported by demand deposits or time deposits. However, if one assumes that the two types of deposits are equally profitable, it is possible to make a rough guess at the earnings of bank assets supported by time deposits. Based upon this assumption, assets supported by time deposits of insured commercial banks earned at a rate of 2.0 per cent in 1954, and 2.4 per cent in 1955, before federal taxes and interest payments on time deposits. Earnings on assets of insured savings and loan associations were 3.2 per cent in 1954, and 3.5 per cent in 1955, before federal taxes and interest payments to shareholders. These figures indicate a possibility that savings may be invested more profitably by savings and loan associations than by banks. U. S., FHLBB, Combined Financial Statements, (Washington: 1954, 1955), U. S., Federal Deposit Insurance Corporation, Annual Report, 1955, (Washington, 1956), pp. 128-30 and 134-35).

Borrowing for Mortgage Expansion

Another significant earnings advantage of savings and loan associations is the fact that they are able to borrow funds from Federal Home Loan Banks for mortgage expansion. The Federal Home Loan Banks serve as a financial intermediary to siphon funds into areas where mortgage money may be profitably employed. The Federal Home Loan Banks obtain funds from members and from the public.¹ The lending rates of Federal Home Loan Banks on long term loans usually are reasonably competitive with dividends paid on share capital within the Federal Home Loan Bank District.² This is particularly true if one considers the fact that Federal Home Loan Bank loans involve insignificant administrative costs for the borrower, and they are, in a sense, a more permanent source of funds than share capital.³

¹Federal Home Loan Banks sell stock to members and accept member deposits. They also obtain funds by selling their own debt obligations to the public. One might logically question the consistency of the borrowing and lending activities of the Federal Home Loan Banks and regulations which limit the mortgage lending ability of savings and loan associations to 50 miles from their home offices. The former policy encourages the flow of funds between mortgage markets while the latter policy inhibits the flow.

²Federal Home Loan Banks lending rates tend to follow general money market tightness. For instance the lending rate of the Federal Home Loan Bank of Indianapolis on both long and short term loans rose from 2.5 per cent in April 1953 to 4 per cent in February 1957. Chart D in Appendix C indicates that the volume of FHLB advances tends to be influenced by the margin of difference between the rates on FHLB loans and the rates of interest paid by members on share capital. As one would expect, members tend to borrow most from the Federal Home Loan Bank when it is a relatively low cost source of funds.

³Member indebtedness to the Federal Home Loan Banks has a definite maturity in contrast with the indefinite maturity of share capital. In case of need, however, it is likely that Federal Home Loan Bank maturities would be extended indefinitely. Of course, share capital is subject to withdrawal requests at any time.

In many cases it has been profitable for members to borrow long term funds from Federal Home Loan Banks for mortgage expansion. In fact, it is difficult to see why members haven't taken greater advantage of their ability to borrow for mortgage expansion. For instance, on December 31, 1955, Federal Home Loan Bank advances were equal to only 4 per cent of member assets.¹ In 1955 the lending rates of Federal Home Loan Banks were low enough to allow profitable borrowing, and there was very strong demand for mortgages during that year.

It should be observed that the Federal Home Loan Banks are not only able, but apparently usually very willing to make loans for mortgage expansion.² Savings and loan managers, however, appear to have something that approaches the traditional bankers' prejudice against indebtedness to the central bank. The managers are frequently of the opinion that the Federal Home Loan Bank should be used only as a source of temporary funds, and as a source of funds when the association is in desperate need of additional money.

¹U. S., FHLBB, 1955 Combined Financial Statements, p. 15.

²The President of the Federal Home Loan Bank of Indianapolis, Fred Greene, in a conference with employees of member savings and loan associations at Kellogg Center, Michigan State University, on February 20, 1958, aggressively stated that he wished members would more actively borrow funds for mortgage expansion. One might well question the compatibility of the Federal Home Loan Banks' goals of mortgage expansion and the improvement of the liquidity and reserve position of its members. The Federal Home Loan Banks undoubtedly should be more reluctant to lend to associations with weak loss and liquidity reserves. See: USSIL, Report of the Special Committee...., pp. 40-45.

This argument makes little sense because of the extremely liberal line of credit available to members. Members could borrow up to a limit, in early 1958, of 12.5 per cent of their share capital for mortgage expansion, and still have a line of credit equal to 37.5 per cent of their share capital as insurance against emergency liquidity requirements. As more associations take advantage of their ability to borrow for mortgage expansion, the competitive effect of this ability should become more apparent.

The potential extra earnings available to savers in associations that borrow heavily for mortgage expansion is significant. It is difficult to establish the absolute profitability of borrowing from the Federal Home Loan Banks to purchase mortgages, but it is perhaps reasonable to assume that members frequently could yield at least .75 per cent on each dollar borrowed. For instance, on July 31, 1956, the Federal Home Loan Bank of Indianapolis was lending long-term funds to members at 3.0 per cent. The yield on conventional mortgages, the type of loan most commonly made, was at least 5.25 per cent in most areas in its District at that time. A very generous upper limit on all costs of negotiating mortgages would be 1.5 per cent, leaving members at least .75 per cent profit on each dollar borrowed for mortgage expansion. If the average savings and loan association borrowed an amount equal to 12.5 per cent of its share capital for mortgage expansion in 1956, and netted as little as .75 per cent on the borrowed funds, it would have been able to increase its rate of interest paid on savings about 3 per

cent.¹ If borrowed funds netted as much as 1.50 per cent, the association borrowing 12.5 per cent of its share capital for mortgage expansion would have been able to increase its dividend rate about 6 per cent. However, it might also be noted that Federal Home Loan Banks, on occasion, have been willing to make loans for mortgage expansion up to 25 per cent of the value of members' share capital. An association which borrowed an amount equal to 25 per cent could increase its dividend rate perhaps as much as 10 per cent under most favorable circumstances.² Such an increase would probably constitute a major improvement in the competitive position of most associations.

It is important, however, to observe that few associations

¹The absolute increase in interest payments on share capital would equal about .1 per cent or (.0075) (.125) (share capital). On December 31, 1956, the average interest rate paid by savings and loan associations in District metropolitan areas was 2.9 per cent. If an additional .1 per cent were paid to share capital holders, the rate of earnings of share capital would have increased about 3 per cent. It is assumed that all additional net earnings realized are paid out to savers. The associations perhaps would not feel obliged to add to loss reserves, because the rate of their reserves to share capital would be unchanged. The loss reserve requirements of the FSLIC are based on share capital rather than total assets. However, if associations have substantial liabilities in addition to share capital liability, a ratio of loss reserves to share capital does not indicate the relative reserve strength of the association. This point is illustrated in the above situation in which an association expands its assets by borrowing more from a Federal Home Loan Bank. The association is increasing the possibility that it will sustain losses on loans, yet its current ratio of reserves to share capital is unchanged. A comparison of loss reserves and total assets, therefore, is more useful. If associations relate their reserves to their total assets, they would elect to credit a portion of their increased earnings to loss reserves.

²It is likely that an association which expanded its assets this much would credit some of its increased earnings to reserves.

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currently have borrowed more than an amount equal to even 10 per cent of their share capital for mortgage expansion. Heavy borrowers perhaps have succeeded in raising their dividend rates by up to 5 per cent. Federal Home Loan Bank loans for mortgage expansion, therefore, have not been a major factor contributing to the competitive strength of savings and loan associations. Federal Home Loan Bank loans for mortgage expansion, however, represent a relatively potent potential competitive advantage which may be exploited more in the future. As savings and loan associations become financially stronger and more confident, they may be more willing to incur exterior debt.

There is some evidence to indicate that member associations make some use of Federal Home Loan Bank credit to supply seasonal cash needs. Table 23 in Appendix D indicates that advances tend to be seasonally high during the winter and low during the summer. The ability of members to obtain seasonally needed funds from Federal Home Loan Banks enables them to invest a higher portion of their assets in long term mortgages than would be possible without this borrowing ability. This, of course, contributes to the profitable operation of savings and loan associations.

Federal Home Loan Bank Deposit Service

Another Federal Home Loan Bank service that perhaps contributes to the profitable operation of savings and loan associations is the ability of members to make time deposits with the Federal Home Loan Banks. Such deposits usually yield interest rates in excess of what members could earn on Treasury bills which approach

the liquidity of Federal Home Loan Bank time deposits. Federal Home Loan Bank time deposits are payable on demand without penalty. The time deposits earn interest if they are on deposit over 30 days.¹

Savings and loan associations generally have the option of depositing time savings in banks or other savings and loan associations. Banks, however, require substantial notice of intent to withdraw institutional time deposits in case of need. Such a requirement partially destroys the liquidity value of time deposits. Share capital is usually payable on demand to any saver, but it is possible that if one savings and loan association is faced with a severe shortage of cash which required extensive use of liquidity reserves, other associations might themselves be unable to make funds immediately available to savings and loan associations with funds on deposit. Because the Federal Home Loan Banks invest most of the time deposits of members in short-term U. S. Governments, it is very likely the Federal Home Loan Banks would be able to respond rapidly to member demands to withdraw deposits.²

¹Federal Home Loan Banks accept both "time" and "demand" deposits of members. Demand deposits are a very small portion of total F.H.L.B. deposits, because time deposits are available on demand yet they bear interest.

²In case of need the Federal Home Loan Banks may require 30 days notice of intent to withdraw funds. It is difficult to imagine an occasion when the full exercise of this power would be necessary. The Federal Home Loan Banks held \$827 million in cash and U. S. Governments on December 31, 1955. The percentage distribution of these holdings were as follows:

Another limitation of savings and loan associations' deposits in both banks and in other savings and loan associations is that they fail to yield maximum interest unless withdrawn soon after quarterly or semiannual dates of interest payment. Because a basic purpose of the time deposits of savings and loan associations is to provide a means of earning income on funds available for short periods of time, such risks of loss of earnings limit the usefulness of deposits in banks and savings and loan associations. Federal Home Loan Bank deposits provide greater certainty of earnings on funds deposited.

In effect, therefore, time deposits in Federal Home Loan Banks are interest bearing demand deposits for which there is no effective substitute. Members may send all funds which they don't expect to need for 30 days or more to the Federal Home Loan Bank. If such funds are subsequently needed, they may be made immediately available in the form of a demand deposit with the Federal Home Loan Bank by phoning a request for the deposit transfer.¹

Cash	7.5%
U. S. Government obligations	
Bills and Notes	.52.2
Held under resale agreements. .	4.8
Bonds due or callable	
within 5 years.	.17.6
after 5 years	.16.7
Nonmarketable bonds	1.2
Total	100.0%

SOURCE: USSLL, Report of the Special Committee. . . ., p. 16.

¹If required, members may convert time deposits in Federal Home Loan Banks to cash in commercial banks in one hour or less. The savings and loan association may request by phone to have funds in savings deposits converted to demand deposits in Federal Home Loan Banks. The association may then present a commercial bank with a draft on the Federal Home Loan Bank and receive a demand deposit in a commercial bank. The Federal Home Loan Bank honors the draft by surrendering claim to funds it has on deposit in commercial banks.

It is really difficult to estimate if members are taking full advantage of Federal Home Loan Bank deposit service. Certainly very substantial use is made of the available service. Member associations hold very little cash on time deposit with commercial banks or savings and loan associations.¹ Holdings of Treasury bills, estimated at roughly .3 per cent of share capital, are also a very minor form of savings association investment.² In contrast, on December 31, 1956, member savings and loan associations maintained deposits with Federal Home Loan Banks, the vast majority of which were time deposits, equal to 2 per cent of share capital.³

Evidence of the use of Federal Home Loan Bank deposits as seasonal investment outlets is indicated by the seasonal indexes of deposits in Appendix D, Table 24. Chart E, in Appendix C, indicates, however, that member deposits in the Federal Home Loan Bank of Indianapolis tend to be high, on a seasonally adjusted basis, when the rate paid by the Federal Home Loan Bank on time deposits is relatively high compared with the rate paid on long-term U. S. Government bonds. Conversely, deposits tend to be low when U. S. Governments are a relatively profitable investment. U. S. Governments

¹Based on conversation with officers of the Federal Home Loan Bank of Indianapolis, March 22-23, 1957.

²The estimate of bills as a per cent of association holdings of U. S. Treasury obligations reported in a U. S. Savings and Loan League survey of 1,757 associations in 1956. USSLL, Report of the Special Committee. . . ., p. 25.

³U. S., FHLBB, . . . Source Book, 1957, p. 8.



and time deposits in Federal Home Loan Banks are the two major types of investments held by member associations to satisfy liquidity requirements. It appears that associations are willing to sacrifice the greater liquidity of time deposits for the higher earnings of U. S. Government bonds when the yield differential is most tempting. Federal Home Loan Banks will accept both investments in satisfaction of liquidity requirements.¹

There is little question that the deposit services of the Federal Home Loan Banks benefit member associations. However, the earnings significance of this service should not be overemphasized. For instance, if the bill rate were .5 per cent less than the rate paid on time deposits in Federal Home Loan Banks, and member associations held an average of 2 per cent of their share capital on deposit in time accounts in Federal Home Loan Banks, their share capital earnings would be only .001 per cent higher than if they used an equal portion of Treasury bills for short-term liquidity requirements.² This calculation, however, does not include costs of admin-

¹One could readily question the willingness of the Federal Home Loan Banks to consider long-term U. S. Bonds and "near monies" as equally satisfactory basic liquidity reserves. Holders of long-term bonds are subject to major capital losses if they must sell their bonds in an "unfavorable" market. Most of the U. S. Bonds held by savings and loan associations are intermediate and long-term issues. USSIL, Report of the Special Committee . . ., p. 25.

²Treasury bills are probably the best alternative investment of association funds which are required to meet periodic unexpected liquidity demands.

A differential between the yields on time deposits in Federal Home Loan Banks and 90 day Treasury bills of .5 per cent would be higher than available in most years as illustrated below:



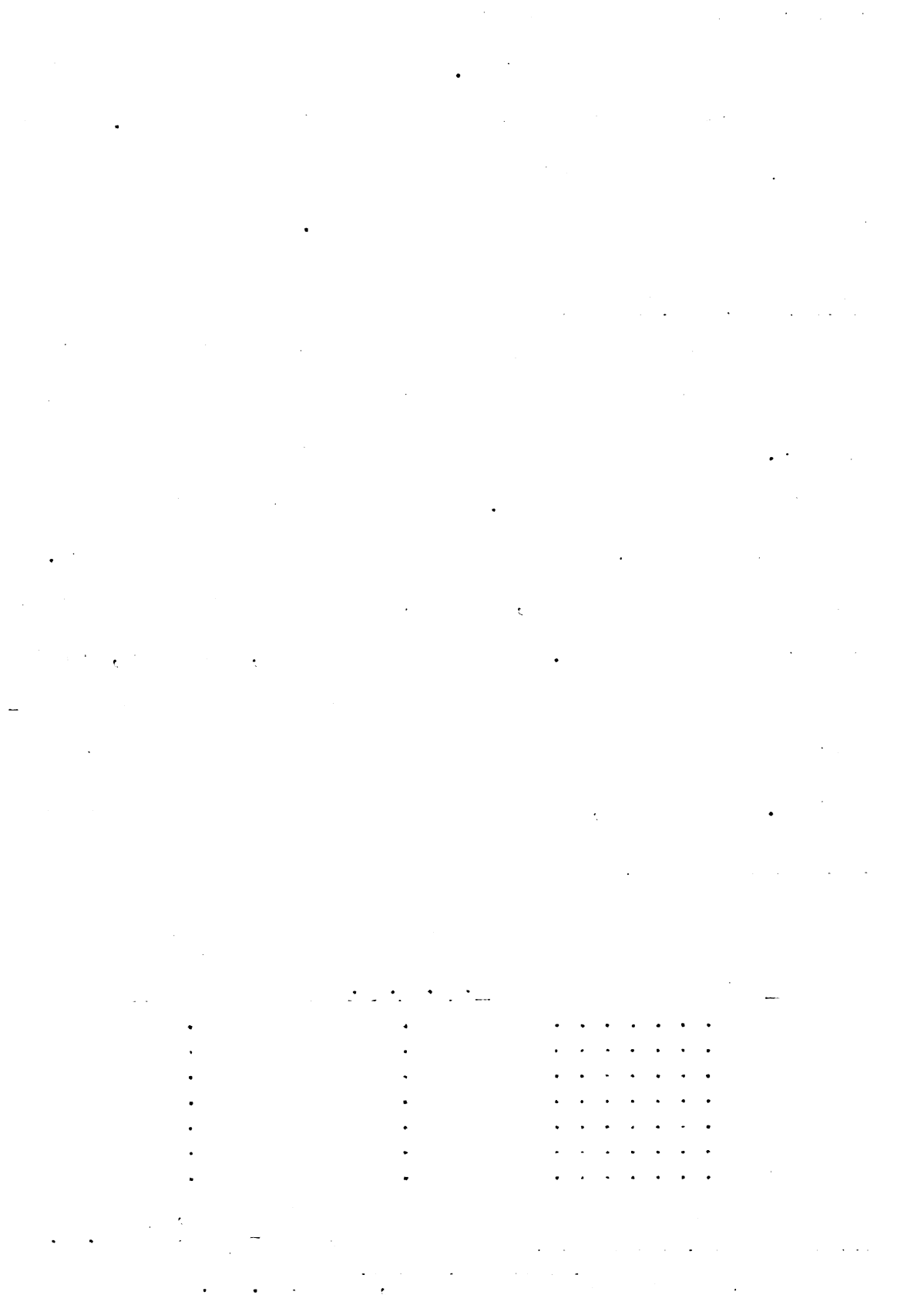
istration or brokerage fees which must be included in the cost of maintaining a portfolio of bills. Bills also are subject to capital loss which is a risk investors in time deposits do not bear. Nevertheless, the deposit services of the Federal Home Loan Bank do not afford members a major competitive advantage.

Organizational Advantages

Another possible explanation of the greater dividend paying ability of savings and loan associations is the fact that they are mutuals. Nearly all commercial banks are joint stock companies which pay dividends to stockholders. The earnings from the invested assets of banks, in effect, are divided between stockholders and savers. Most of the assets of banks, however, represent claims of depositors rather than stockholders. Stockholders of banks, therefore, receive a part of the earnings of the assets purchased with the money of depositors and all of the earnings of assets purchased with equity capital. In contrast, all of the earnings on the invested assets of

<u>Year</u>	<u>Interest paid on time deposits at Indianapolis F. H. L. B.</u>	<u>Annual average yield on bills</u>
1950	1.50%	1.22%
1951	1.58	1.55
1952	1.81	1.77
1953	2.00	1.93
1954	2.00	.95
1955	2.00	1.75
1956	2.13	2.66

SOURCE: Federal Home Loan Bank of Indianapolis, Quarterly Statements of the Operation, (Indianapolis, 1950-1957), and U. S. Department of Commerce Business Statistics (1957 Biennial Edition; Washington, Government Printing Office, 1957), p. 82.



savings and loan associations are available for payment to savers. In 1957 insured commercial banks paid out \$675.9 million in common stock dividends.¹ If no common stock dividends were paid, banks would have had considerable more funds available to pay interest on time deposits. If it is assumed that demand and savings deposits contributed proportionately equally to earnings, the savings departments of banks in 1957 would have had extra funds sufficient to increase payments on time deposits by roughly 17 per cent.² It is quite apparent that mutual organization of a savings institution is a significant potential competitive advantage.

Another possible competitive advantage of savings and loan associations is that fact that managers frequently receive a substantial portion of their incomes from fees earned as insurance agents. Very frequently mortgage borrowers purchase accidental loss insurance on their homes or life insurance equal to their mortgage indebtedness from the savings and loan association making the loan.³ It is quite likely that the opportunity to make substantial nonsalary income allows savings and loan associations to attract

¹U. S., FDIC, Annual Report, 1957, p. 131.

²On December 31, 1957, savings deposits were 28.3 per cent of total deposits of insured banks. In 1957 insured commercial banks paid out \$675.9 million in dividends to common shareholders and \$1,141.7 million in interest payments on time accounts. Ibid., pp. 130-31.

³Some small town bankers also conduct an insurance business along with their banking business, but this practice is not nearly as common among bankers as it is among savings and loan managers.

management talent that would not be available at the level of salaries paid. It is impossible to make a realistic estimate of the possible association cost savings in cases where this condition exists.

Mortgage Lending Practices

Another conspicuous competitive advantage of savings and loan associations that conceivably may be reflected in their earnings is the fact that savings and loan associations may lend a significantly higher per cent of the appraised value of a home than most commercial banks.¹ Most commercial banks may lend up to a maximum of two-thirds of the value of a home if the loan is to be fully amortized within twenty years.² Savings and loan associations generally have been able to make loans up to 80 per cent of the value of a home with maturities of twenty-five years or longer.³ New York chartered and, since 1958, federally chartered savings and loan associations

¹It is also frequently alleged by bankers that savings and loan associations are more liberal than banks in their appraisals of property values and that examiners of savings and loan associations are less insistent on conservative appraisals than are bank examiners. There are no adequate data to support or deny these allegations.

²The appraised value used by banks is usually roughly equal to the market value of a property, although some banks consistently appraise properties at less than market value. State chartered commercial banks in several states have somewhat more lending freedom than the above.

³There is evidence to indicate that savings and loan associations make use of these competitive advantages. For instance, in October 1958, 59.3 per cent of the conventional residential real estate loans of surveyed savings and loan associations in Chicago were for 75 per cent, or more, of the value of properties mortgaged. In addition, 43.1 per cent of the loans made were with maturities of over 22.4 years. Federal Reserve Bank of Chicago, "Characteristics of Residential Real Estate Loans -- Chicago Area Savings and Loan Associations," unpublished.

2. The second section focuses on the role of communication in project management. It argues that clear and consistent communication is the foundation of any successful team effort. The author provides several practical tips for improving communication, such as holding regular meetings and using collaborative platforms to share information.

3. In the third part, the document explores the challenges of time management. It acknowledges that time is a limited resource and that effective time management is crucial for meeting deadlines and achieving goals. The text offers strategies for prioritizing tasks and avoiding common pitfalls that lead to procrastination.

4. The fourth section addresses the issue of resource allocation. It discusses how to identify the most critical resources for a project and how to allocate them efficiently. The author stresses the importance of flexibility in resource management, as circumstances can change rapidly during the course of a project.

5. Finally, the document concludes with a discussion on the importance of continuous learning and improvement. It encourages readers to reflect on their experiences and to seek out new opportunities for growth. The text suggests that a growth mindset is essential for staying motivated and achieving long-term success.

may lend up to 90 per cent of the value of properties. As a result, savings and loan associations have become the primary source of money for conventional mortgages in most areas of the United States. Savings and loan associations may offer lower down payments and lower monthly payments on conventional mortgages than most banks.¹

It should also be noted that conventional mortgages have been quite competitive with Government insured mortgages in most areas. Frequently, borrowers may obtain conventional mortgage loans at lower rates of interest than are available on Government insured mortgage loans.² Down payments are not always higher on conventional loans than on FHA or VA mortgage loans because along with the "down payment," loan buyers must often pay substantial loan discount

¹Savings and loan associations frequently are more able than banks to make conventional mortgage loans on higher priced homes. The same down payment will generally purchase a more expensive home if the conventional mortgage is obtained from a savings and loan association rather than a bank. Savings and loan associations claim the result is that they have higher quality properties in their mortgage portfolio than banks.

²One half per cent per year of the value of an insured loan must be paid to cover the cost of the insurance. Lenders frequently don't consider the loan guarantee is worth the entire .5 per cent payment. They are tempted to bear the loss risk in return for the higher yield of a conventional mortgage. Therefore, there is some market pressure to narrow the market yield gap between guaranteed loans and conventional loans to less than .5 per cent. Borrowers, as a result, sometimes may be able to obtain a conventional loan at a lower real rate than a guaranteed loan. The fact that down payments on conventional loans tend to be higher than on guaranteed loans also contributes to the opportunity. This discussion, however, concerns only the original bargained interest rate. Borrowers on Government insured mortgages frequently receive a substantial rebate of their mortgage insurance payments after the entire loan has been paid. It is, however, very uncertain that borrowers give much weight to the prospect of an uncertain rebate as much as 30 years in the future.

premiums and the difference between the FHA or VA appraised value and the market price of the home.¹ Monthly payments may be lower on conventional loans than on Government insured loans because of the possible lower interest rates and generally higher down payments paid by borrowers on conventional loans.

The competitive significance of the relative ability of savings and loan associations to make conventional mortgage loans is the fact that lenders generally profit more from conventional loans than from Government insured loans. If savings and loan associations are more able than banks to attract profitable conventional loans, it is likely that the relative earnings of savings and loan associations reflect this ability.

It is difficult to imagine why different legal standards of mortgage quality exist for similar types of savings institutions. Federal insurance agencies bear the final risk of capital impairment which may result from mortgage loan losses. The fact remains, however, that savings and loan associations have a legal competitive advantage over commercial banks in competing for profitable conventional mortgages.

This section completes a general evaluation of the alleged and actual earning advantages of savings and loan associations. The

¹For instance, in September 1958, 42.8 per cent of the FHA and VA loans of Chicago area savings and loan associations were made with down payments of 16 to 35 per cent of the selling price of the property. 32.5 per cent of the conventional loans of savings and loan associations were made with down payments of less than 25 per cent. Federal Reserve Bank of Chicago, "Characteristics of Residential Real Estate Loans, Chicago Area Savings and Loan Associations," unpublished.

conclusion is that savings and loan associations enjoy several earnings advantages that enable them to pay significantly higher returns on savings than are paid by banks. The statistical analysis section of this paper in Chapter II indicated that this fact is important in explaining the competitive strength of savings and loan associations. Chapter II, however, also indicated that there are other factors which are very important in determining the flow of savings into banks and savings and loan associations. The remainder of this chapter discusses several of the alleged and actual competitive advantages of savings and loan associations which aren't directly reflected in their earnings.

Intangible Competitive Forces

Attitudes of Regulatory Agencies

A probable competitive advantage of savings and loan associations is the very paternalistic attitude of their major regulatory agency, the Federal Home Loan Bank Board. All insured and many non-insured associations are members of the Federal Home Loan Bank. Members account for 94 per cent of the share capital in the United States.¹

The paternalism of the Federal Home Loan Bank Board is evidenced by the fact that many of its regulations have been enacted at the request of the members.² An excellent example is a current

¹U. S., FHLBB, . . . Source Book, 1958, pp. 10-11. Insured associations must be members.

²Statement of Fred Greene, President of the Federal Home Loan Bank of Indianapolis, at Kellogg Center, Michigan State University, February 20, 1958.

Federal Home Loan Bank Board regulation which limits insured savings and loan associations' gifts to new account holders to a wholesale value of \$2.50.¹ Before this regulation, savings and loan associations were offering everything from clock-radios to trips to Florida as promotional devices. Such practices caused so many complaints from nongivers that the Federal Home Loan Bank Board decided to limit the practice. It is really difficult to determine how far a regulatory agency should be willing to limit the zone of competition of its membership. It is also difficult to demonstrate that aggressive promotion is not in the interests of the savings and loan business as a whole. It is interesting to note that the Federal Home Loan Bank Board currently does allow substantial promotional payments to savings and loan wholesalers for funds attracted, yet it doesn't allow outright gifts given to the savers which may be much less expensive to the associations.²

Another interesting example of the paternalism of the Federal Home Loan Bank Board is the existence of regulations intended to

¹U. S., Code of Federal Regulations, title 24, Ch. 1, sec. 163.24.

²In 1958 savings and loan associations were permitted to pay wholesalers a fee up to 1 per cent of the value of share capital attracted. Wholesalers advertise in financial and popular newspapers. Their advertisements offer information on associations which pay high dividend rates on share capital. Prospects are encouraged to send funds for investment directly to the wholesaler, or to the savings and loan association, mentioning the name of the wholesaler. Savings and loan wholesalers serve the vital economic function of attracting funds from low interest rate areas to high interest rate areas. Because of pressure from low rate paying associations, the Federal Home Loan Bank Board is currently considering a plan to restrict the activities of wholesalers.

protect federal savings and loan association management from "raiders." The following management protection provisions are in force: 1. Proxies must be filed 5 days before the annual meeting of shareholders. This allows management time to enlist the support of more uncommitted shareholders if necessary. 2. All new business at shareholders' meetings must be submitted in advance of the meeting. 3. Directors appoint nominating committees. Extra nominations must be filed 15 days before the annual shareholder meeting. 4. There is a limited number of directors, and one third of the directors are elected each year for a three year term. 5. Each shareholder gets one vote for each \$100 in shares held up to a maximum of 50 votes and each borrower receives one vote. Cumulative voting for directors is not allowed. These provisions don't allow a single individual or a small group to control a large voting bloc. These limits are all contained in bylaws approved by the Federal Home Loan Bank Board. They apparently have been quite successful, because there have been only about six proxy fights in member associations in the last twenty years.¹

Of course it is quite possible that excessive provisions to insure the security of management may not be in the best interests of the savings and loan association "industry." The difficulty of chartering new associations and the difficulty of proxy fights probably allows conservative management to exist without effective challenge. The Federal Home Loan Bank Board in early 1958 was considering

¹Statement of Fred Greene, President of the Federal Home Loan Bank of Indianapolis, at Kellogg Center, Michigan State University, February 20, 1958,

making proxy fights even more difficult. There was a proposed new regulation that would allow management of member associations to refuse to furnish shareholder lists to interested persons unless this action is "in the best interests of the association."¹ Supporters of this regulation suggest that shareholders who aren't happy with management may withdraw their funds. One should keep in mind, however, that in many towns and in many suburban areas of cities there is only one association convenient to local savers. Because savings and loan associations are mutually organized, there are no profit seeking stockholders to insure that the associations are well managed. In order for mutual organization to succeed, shareholders must be allowed every opportunity to insure that management is efficient.

Other examples of Federal Home Loan Bank paternalism have already been cited. Of particular importance is the fact that the Federal Home Loan Banks are willing to tolerate greater member illiquidity than the Federal Reserve Banks. This indicates a greater willingness of the Federal Home Loan Banks to bear the ultimate risk of member illiquidity.

It is difficult to interpret the net effects of Federal Home Loan Bank paternalism on the growth and health of savings and loan associations. Undoubtedly, the great bulk of Federal Home Loan Bank actions have been in the best interest of all its members. An aggressive strong administrative agency is probably a competitive

¹Ibid.

asset to savings and loan associations.

The Availability of Savings Offices

The statistical analysis section of this paper indicates that the physical availability of savings institutions may be a significant variable explaining the relative popularity of share capital investments in District areas. It would appear that savings and loan associations have no advantage over commercial banks in their ability to establish offices. In fact, it is likely to be more difficult to establish a savings and loan office than a commercial bank in many areas. In order to establish a new savings and loan association office, the promoter must clearly establish that existing savings and loan associations won't be unduly damaged by the new facility.¹ In Michigan, for example, a new state-chartered association or branch must not be within two miles of an existing association unless it is located in a clearly separate commercial area.² Similar conditions must be met to charter a federal savings and loan office.

In order to charter a new savings and loan association, very substantial pledges of share capital are required which depend upon the size of the city in which the new association wishes to locate. Pledges of about \$2 million would be required to locate a new association in a city the size of Detroit. New associations in small

¹Russell, op. cit., p. 136.

²Statement of Ephan A. Doty, Chief Examiner of Michigan Savings and Loan Associations, at Kellogg Center, Michigan State University, February 20, 1958.

towns would require at least \$100,000 in pledges.¹

It is nevertheless quite likely that considerable caution in chartering new savings and loan associations is justified. It is certainly in the public interest to insure that promoters of savings and loan associations are honest and reasonably able. The FSLIC is understandably reluctant to insure new associations without substantial prospects of success. It is, however, not so clear why the establishment of branch savings and loan associations should be so difficult in states in which branch banking is legal. It is possible that excessive competition might seriously limit the profits and ultimate strength of some associations, but there is the additional possibility that too little competition may not provide savers with adequate services or rewards. It was pointed out in Chapter II that savings and loan associations tend to pay the highest dividend rates where there are the most savings and loan offices.

Establishment of new national and state banks requires a minimum amount of capital and some assurance that there is a need for a new bank in the area.² It is not at all clear whether it is easier to establish a new bank or a savings and loan association. However,

¹Statement of Fred Greene, President of the Federal Home Loan Bank of Indianapolis at Kellogg Center, Michigan State University, February 20, 1958; also see: Russell, op. cit., p. 138.

²The capital requirements to establish a national bank depend upon the size of the city in which the bank will be located. Requirements range from \$50,000 to \$200,000. U. S., Code Annotated, title 12, sec. 51.

in states in which branch banking is legal, it is often far easier to open a branch of a bank than a branch of a savings and loan association. Supporting evidence of this statement is the fact that there were 8,106 branches of commercial banks in the United States on December 31, 1956, compared with 748 branches of savings and loan associations.¹

Public Attitudes

Bankers frequently argue that public ignorance explains the popularity of savings and loan associations. It is alleged that the public "confuses" savings and loan associations with banks. The public is alleged not to understand the difference between banks and savings and loan associations. In Chapter I it was established that, in the final analysis, the difference between share capital and savings deposits is really not very significant.

A survey of the habits of savers authorized by the United States Savings and Loan League is useful in evaluating the argument that the public is ignorant of the difference between savings in commercial banks and savings and loan associations.² The survey concluded that about one-half of the savings and loan associations' savers believed that funds are easier to withdraw from commercial banks than from savings and loan associations. The remainder believed

¹FDIC, Annual Report, 1956, p. 25, and United States Savings and Loan League, Savings and Loan Annuals, 1957, (Chicago, 1958), p. 134.

²USSLL, 1955 Consumer Survey. . . ., pp. 34-35.

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal.

2. Once a problem is identified, the next step is to define the problem more precisely. This involves determining the scope of the problem and the specific areas that are affected.

3. The third step is to analyze the problem. This involves identifying the causes of the problem and the factors that contribute to its persistence.

4. The fourth step is to develop a plan of action. This involves determining the steps that need to be taken to solve the problem and the resources that will be required.

5. The fifth step is to implement the plan. This involves putting the plan into action and monitoring progress to ensure that the problem is being solved.

6. The sixth step is to evaluate the results. This involves assessing the effectiveness of the solution and determining whether the problem has been solved.

7. The seventh step is to document the process. This involves recording the steps that were taken and the results that were achieved.

8. The eighth step is to communicate the results. This involves sharing the findings with others who may be affected by the problem or who may be interested in the solution.

9. The ninth step is to review the process. This involves reflecting on the experience and identifying lessons learned that can be applied to future problems.

10. The tenth step is to continue to monitor the situation. This involves keeping an eye on the problem to ensure that it does not recur and that the solution remains effective.

11. The eleventh step is to seek feedback. This involves asking others for their input and suggestions on how to improve the process.

12. The twelfth step is to celebrate success. This involves acknowledging the efforts of those who contributed to the solution and the positive outcomes that have been achieved.

13. The thirteenth step is to share the story. This involves telling others about the problem and the solution, so that they can learn from the experience and avoid similar problems in the future.

that funds were at least as easy to withdraw from savings and loan associations as from banks. In addition, savers in savings and loan associations were roughly equally divided in their opinion of whether savings and loan associations or commercial banks would be more affected by a depression. This survey indicates that a substantial number of savers in savings and loan associations evidence concern for the possible illiquidity of share capital. It appears that savings and loan associations have not done a very good job of educating the public on the relative safety of share capital. Banks, on the other hand, should be pleased that many savers are not acquainted with the relative security of share capital. Better public education would probably help the savings and loan associations, not the banks.

Advertising Expenditures

Bankers also frequently allege that the competitive success of savings and loan associations is a result of aggressive promotion. It is, however, difficult to arrive at a useful index of promotional effort. One may compare either total outlays of institutions for advertising, or advertising expense as a per cent of savings. The problem is really that both classifications are needed. Some types of promotion expense, for example letters to account holders, are best measured by relating the expenditure to total savings. The effectiveness of media advertising, on the other hand, is really dependent upon total outlays regardless of initial savings capital.

Very rough comparisons of the advertising expenditures of banks and savings and loan associations indicate that savings and

loan associations spend more per dollar of assets than do commercial banks, but banks spend about twice as much in actual dollar outlays for advertising.¹ However, nearly all savings and loan advertising directly relates to savings promotion or improving the earnings of associations by stimulating mortgage business. In contrast, the advertising of commercial banks promotes a wide range of bank services. It is true that all bank advertising puts the bank's name before the public, but the name isn't always directly related to savings. There is no general breakdown of commercial bank advertising by departments promoted. One must, therefore, conclude that it is really impossible to say anything definite about the comparative advertising expenditures of savings and loan associations and commercial banks.

Other Competitive Factors

Savings and loan association offices are often newer and more modern than bank offices. Savings and loan associations also have been quite successful in their attempt to stress very courteous and friendly relations with savers. Commercial bankers often may not devote much of their time to promoting friendship with savers. Savings and loan associations also specialize in making mortgage loans. Their skill and interest in negotiating mortgage loans undoubtedly enables them to maintain friendly relations with builders and borrowers.

It is, therefore, apparent that there are many factors which

¹Freeman, p. 16.

contribute to the competitive strength of savings and loan associations. Certainly their high earnings and the favorable attitude of their administrative agencies are among their most important competitive strengths; but they also have other competitive assets which explain their current popularity and rapid growth.

CHAPTER V

POSTAL SAVINGS, CERTIFICATES OF DEPOSIT, AND UNINSURED SHARE CAPITAL

Postal Savings

Postal savings are a relatively minor and decreasing form of savings in District metropolitan areas. Table 26 in Appendix D indicates per capita postal savings deposits in the District areas. This study does not include small towns or rural areas, but it should be mentioned that postal savings often are not accepted in small town or rural post offices.¹

Postal savings have been declining rather sharply in popularity since 1947. Much of the decline has been undoubtedly because of the increase in returns paid by competing savings institutions in recent years. In addition, the Post Office Department has been reducing the number of its offices that will accept postal savings deposits.² Nevertheless, it is very difficult to explain why postal

¹In 1951 only 12 per cent of third class post offices, and 1 per cent of fourth class post offices, accepted postal savings. Third and fourth class offices are much more likely to be located in areas where there are no banks than are first and second class post offices. Most first and second class post offices are postal savings depositories. Adam J. Zaum, "The Postal Savings System," Present Day Banking, 1954, (American Bankers Association, New York), p. 493.

²Between December 1952, and December 1957, total depositories decreased from 8,261 to 7,369. U. S. Congress, House, Report of Operations of the Postal Savings System, (Washington; Government Printing Office, 1958), p. 6 (hereafter cited as: U. S., House, Report. . . Postal Savings System, 1957).

savings are as popular as they are today. Depositors earn 2 per cent interest per year which is below the rate obtainable on share capital in virtually all savings and loan associations and below the rate paid on savings deposits in commercial banks in many areas. It would appear many savers may prefer postal savings because they lack confidence in private savings institutions.

There is some evidence to suggest that the level of per capita postal savings deposits may be influenced by the services provided by private savings institutions, principally banks. An analysis of per capita postal savings deposits in District metropolitan areas on December 31, 1956, indicates that postal savings tend to be highest in areas where the interest rate paid on savings deposits is low or where there are relatively few commercial bank offices.¹ It might also be mentioned that the average deposit in all postal savings depositories has been steadily declining since 1949.² This fact might well indicate that large depositors, generally more sensitive to competitive interest rates, are seeking types of investments that pay better returns than postal savings deposits. However, a statistical analysis of metropolitan area savings did not indicate a significant relation between per capita postal savings and the rate of interest paid on share capital or the availability of savings and loan offices.

¹The partial coefficients of correlation were $-.38$ and $-.40$ respectively. The multiple coefficient of correlation was $.57$.

²From \$827 in 1949 to \$665 in 1957, U. S., House, Report. . . Postal Savings System, 1957, p. 6.

The data indicate that the popularity of postal savings depends partially upon the services provided by banks and that the postal savings system and commercial banks appear to be in the most direct competition. The continuation of postal savings service may not be argued on the grounds that it is a service to savers without available banks.¹ However, the data do indicate that postal savings tend to serve savers in areas where bank services are not entirely satisfactory, i.e., where there are too few banks in a town, or where the interest rates on savings deposits are low. This fact undoubtedly explains much of the bankers' opposition to the postal savings system.

There have been many suggestions made that the postal savings system should be eliminated. The charge is made that the government provides "unfair" competition for banks. However, the Post Office reports that the postal savings system has operated at a profit during most years.² It is difficult to see any actual danger in retaining the system if it is not actually operating at a loss to the Government. As bank services continue to improve the system will likely contract to a point where it clearly becomes extravagant to maintain.

¹On June 30, 1952, there was at least one insured bank in 82 per cent of the towns served with postal savings. Zaun, p. 492. Since 1952 many small depositories have been closed, so the current figure is probably at least 90 per cent.

²U. S., House, Report. . .Postal Savings System, 1957, p. 6. There is considerable question about the adequacy of the Post Office's cost accounting system. Zaun, pp. 487-90.

Certificates of Deposit

Certificates of deposit are a device often used by banks to encourage "permanent" saving. The certificates of deposit frequently bear a somewhat higher rate of interest than passbook accounts, although both types of savings may not pay more than 3 per cent interest to depositors.¹ Obviously, certificates of deposit may yield higher returns than passbook savings only in areas where less than 3 per cent is paid on passbook savings. Certificates of deposit are also a less liquid type of investment than passbook savings accounts. At least 30 days notice is required before certificates are redeemed.² There may also be significant yield penalties if certificates are redeemed before specified maturity dates. Maturities range up to ten years.

There is no uniform method of paying interest on time certificates, although most banks mail out interest payment checks at stated intervals. Some banks make interest payments by crediting depositors' accounts. It should also be noted that not all banks offer

¹U. S., Board of Governors of the Federal Reserve System, Regulation D, Supplement Effective January 1, 1957, (Washington, 1957).

²The definition of a certificate of deposit used by the Federal Reserve Bank of Chicago in its survey questionnaires is: "A deposit evidenced by a negotiable or nonnegotiable instrument which provides on its face that the amount of the deposit is payable to the bearer, or any specified person, or on his order, at the expiration of a specified time not less than thirty days after the date of the instrument, or upon written notice which is actually required to be given not less than thirty days before the date of repayment, and in all cases, payment is made upon presentation and surrender of the instrument."

certificates of deposit for sale, although time certificates are increasing in popularity among bankers.¹

Some of the popularity of certificates of deposit may be traced to the fact that banks are able to sell them to all classes of depositors. Passbook savings are available only to individuals or nonprofit organizations. On June 23, 1958, individuals held 70 per cent of the certificates of deposit of District member banks, corporations and institutions held 27 per cent, and other businesses 3 per cent.²

Unfortunately there are no data on interest rates paid by District banks on certificates of deposit, but it is safe to assume that they are at least as high as rates paid on passbook savings. However, there does not appear to be any significant tendency for certificates of deposit to be relatively more popular in areas where savings deposits earn high interest rates. Certificates of deposit are popular in cities where either high or low interest rates are paid on savings deposits. In addition, there is no significant tendency for certificates of deposit to be growing more rapidly in popularity in areas where high interest rates are paid on savings

¹About 75 per cent of 1,265 banks surveyed by the American Bankers Association, Savings and Mortgage Division, in 1955 offered certificates of deposit. 1956 Savings Survey: A Report on the Nationwide Survey of Savings Activities and Trends, (New York, 1956), p. 4. An unpublished survey conducted by the Federal Reserve Bank of Chicago indicated that 247 (61 per cent) of 402 District banks surveyed offered certificates of deposit on July 1, 1956.

²Federal Reserve Bank of Chicago, unpublished summary of member banks' Call Report, June 23, 1958, Schedule F. A.

deposits. For the purpose of further analysis, certificates of deposit were broken down into corporation and individual holdings. This technique, however, did not indicate a close relationship between certificates of deposit purchased or held by individuals or corporations and rates of interest paid on savings deposits.

The analysis above only concerned the 32 District metropolitan areas. An additional study of all District member banks indicated that small banks are relatively more successful in selling certificates of deposit than are large banks.¹ One possible explanation of this situation is the fact that interest rates on savings deposits definitely tend to be lower in small banks than in large banks. (See Table 7) It is also likely that small banks tend to be located in small towns and they are less likely to have competitors in small towns than in cities. Certificates of deposit likely appeal to relatively large depositors who might be interested in savings and loan associations as investments if they are locally available. There is the additional possibility that small bankers may push certificates of deposit more aggressively than large bankers. Small bankers, as a group, may be relatively more concerned about maintaining "permanent" savings than larger bankers.

¹Call Report, June 6, 1957:

Bank deposits (\$ millions)
<u>\$100</u>
20 - 100
Under 20

Certificates of deposit as a per cent of time deposits
<u>5.2%</u>
7.0
13.4

TABLE 7

MEMBER BANK TOTAL DEPOSITS AND INTEREST
RATES PAID ON TIME DEPOSITS

<u>Deposits</u> <u>(\$ millions)</u>	<u>Interest</u> <u>rate on</u> <u>time</u> <u>deposits</u>
Under 2.5	1.56%
2.5 - 5	1.57
5 - 15	1.62
15 - 50	1.67
50 - 100	1.77
100 - 200	1.94
Over 200	1.62

SOURCE: Federal Reserve Bank of Chicago,
1957 Operating Ratios of Seventh
District Member Banks, (Chicago
1958).

It is really difficult to foresee any substantial increase in the popularity of certificates of deposit among savers. Certificates of deposit are no more secure than U. S. Savings Bonds and not significantly more secure than high grade corporation bonds. Both of these types of bonds offer savers relatively long-term investments and higher yields than certificates of deposit.

U. S. Savings Bonds offer the same protection against capital loss as certificates of deposit. Of course, U. S. Savings Bonds generally may be purchased only by individuals, but individuals purchase most of the certificates of deposit. Individuals and corporations may invest in savings and loan associations which generally pay higher returns than banks pay on certificates of deposits.¹

¹Savers in either U. S. Savings Bonds or certificates of deposit are free of worry about capital losses. Savers who are concerned about the possibility of declining interest rates during the

It is probably a major credit to bankers that they have been even modestly successful in selling certificates of deposit. Certificates of deposit will become more popular in areas where they have not been previously promoted aggressively, but it is unlikely that they will become a major form of individuals' savings unless their yields are increased significantly.

Uninsured Share Capital

Share capital in uninsured savings and loan associations is considered separately because it is really distinct from share capital in insured savings and loan associations as a form of investment. If an uninsured savings and loan association becomes insolvent, savers may lose most or even all of their investments.² If an insured savings and loan association becomes insolvent, savers receive the entire amount of their insured investment. A very important question to investigate, therefore, is the relative probability that uninsured savings and loan associations will become insolvent. It is also of interest to the saver to investigate the relative speed with which solvent uninsured savings and loan associations may be expected to pay withdrawal requests.

term of their investment may invest with less confidence in savings and loan associations. However, it is unlikely that many savings and loan associations would significantly reduce their rate of dividend payments unless interest rates declined sharply and remained depressed for some time. The income of savings and loan associations would decline slowly in a period of declining interest rates because of the long average maturity of their asset portfolios.

²Insolvent here is intended to mean impairment of capital, or a situation in which the assets of an association are insufficient to cover its claims.

Insolvency, in the final analysis, is the result of an insufficient total of loss reserves and undivided profits. On December 31, 1957, uninsured savings and loan associations held reserves and undivided profits equal to 10.3 per cent of their share capital compared with a ratio of 7.8 per cent for insured associations.¹ An evaluation of the adequacy of the relative "capital" positions of insured and uninsured savings and loan associations requires a comparison of the relative potential capital losses that insured and uninsured associations may sustain. Capital losses are most likely to result from the default of borrowers or the sale of investments at less than their cost. One may assume that the assets of insured and uninsured associations are of comparable quality, but uninsured associations may be forced to absorb relatively more losses from unfavorable sales of investments. At this point it is important to distinguish between member and nonmember uninsured associations. Both insured and member uninsured associations have secure lines of credit from Federal Home Loan Banks which minimize the possibility that they will sustain capital losses on assets in a liquidity crisis.² However, without secure lines of credit when many savers demand their money, uninsured nonmember associations might well sustain major capital losses in an attempt to become liquid. Savers in uninsured nonmember associations also face the danger of extended inability to withdraw their savings because the

¹The ratio for uninsured nonmember associations was 11.0 per cent compared with 9.7 per cent for uninsured member associations. U. S., FHLBB, Source Book, 1958, pp. 10-11.

²All insured associations are members of Federal Home Loan Banks.

nonmember associations may be unwilling to bear the capital losses involved in an attempt to liquidate mortgages rapidly in an unfavorable market.

It appears, therefore, that savers in uninsured nonmember associations face both the danger of illiquidity and the danger of substantial permanent loss of their investment. Savers in member uninsured associations are generally free of worry about illiquidity, but they face the possible loss of much of their investment if their association becomes insolvent in a major financial crisis.¹ Member uninsured savings and loan associations, however, should be relatively more able than nonmember associations to avoid a condition of insolvency which may result from excessive liquidity demands. Insufficient loss reserves are the most probable cause of insolvency of member uninsured associations, but many member uninsured associations appear to have sufficient loss reserves to cover all but the most extreme cases of financial crisis.

Table 26 in Appendix D shows the relative per capita uninsured share capital holdings in the District metropolitan areas. Uninsured savings and loan associations are of major importance in only two widely separated District areas. There doesn't appear to be any explanation for the success of uninsured savings and loan associations in some areas and their nonexistence or unimportance in other areas. On the other hand, in the two District areas in which uninsured

¹On December 31, 1957, 45 per cent of the uninsured share capital in the United States was held in nonmember savings and loan associations. U. S., FHLEB, Source Book, 1957, pp. 10-11.

savings and loan associations are large and well established, insured savings and loan associations are relatively small. Apparently, some well established large uninsured savings and loan associations are able to compete successfully with insured savings and loan associations. In fact, in four District areas in which there are well established uninsured savings and loan associations, uninsured share capital is growing at a faster rate than insured share capital. In fact, uninsured share capital savings are larger than insured share savings in two of these areas. Table 8 on the following page compares the rates of growth of the two types of share capital and it indicates the relative rates of return paid to savers in the two classes of institutions in areas where the data are available. Table 8 illustrates that insured savings and loan associations are growing faster than uninsured associations in most district areas. On a nationwide basis, data indicate that from December 1952 to December 1957, share capital increased 132 per cent in insured associations, but only 33 per cent in uninsured associations.¹ Part of the explanation for this condition is that uninsured savings and loan associations are constantly converting to an insured status, and state regulatory agencies are often reluctant to charter new uninsured associations.

The limited data on interest rates paid by uninsured savings and loan associations presented in Table 8 indicates that much of their appeal is due to the fact that they frequently pay higher

¹U. S., Federal Home Loan Bank Board, Savings and Home Financing Source Book, 1956, 1957, (Washington, 1957, 1958), pp. 10-11.

TABLE 8

COMPARISON OF INSURED AND UNINSURED SAVINGS
AND LOAN GROWTH AND RATES OF INTEREST
PAID ON SHARE CAPITAL

Metropolitan Area	Increase in uninsured share capital 1955-56	Increase in insured share capital 1955-56	Interest rate on uninsured share capital Dec. 31, 1956	Interest rate on insured share capital Dec. 31, 1956
Grand Rapids	11%	18%	3.0%	3.0%
Detroit	10	21	4.0 ^E	2.6
Lansing	14	10	3.9	3.0
Indianapolis	8	10	N.A.	3.0
Champaign- Urbana	16	13	4.0 ^E	3.3
Rockford	4	22	N.A.	2.8
Springfield	decline	12	N.A.	3.0
Chicago	34	18	N.A.	3.1
Racine	4	17	N.A.	3.0
Milwaukee	1	12	N.A.	3.6
Waterloo	4	13	4.0 ^E	3.0
Cedar Rapids	17	12	3.7	2.8
Des Moines	6	12	3.5	3.0

^EEstimated

N.A. Not available

SOURCES: Data on member associations were from the Federal Home Loan Banks of Des Moines, Chicago, and Indianapolis.

Data on nonmember associations:

Illinois, Auditor of Public Accounts, Report Covering Savings and Loan Associations, 1956-1957 (Springfield, 1957-1958).

Indiana, Department of Financial Institutions, Annual Report, 1954-1955-1956-1957 (Indianapolis, 1956-1958).

Iowa, Auditor of State, Report on the Condition of Savings and Loan Associations, 1955-1957 (Des Moines, 1956-1958).

Michigan, Secretary of State, Report on Building and Loan and Savings and Loan Associations, 1955-1957 (Lansing, 1956-1958).

Wisconsin, Savings and Loan Department, Annual Report on the Condition of Wisconsin Savings and Loan Associations, 1955-1957 (Madison, 1956-1958).

rates of return on share capital than are paid by insured savings and loan associations. However, it is very unlikely that uninsured savings and loan associations are able to earn a higher rate of return on invested share capital than insured savings and loan associations. In fact, insured savings and loan associations carry a higher proportion of mortgages to share capital than do uninsured savings and loan associations. Uninsured savings and loan associations are relatively more liquid and borrow less from lending institutions as shown in Table 9. It is, therefore, very difficult to see a possibility that uninsured savings and loan associations could earn higher returns on savings than insured associations.

TABLE 9

BALANCE SHEET COMPARISON OF INSURED AND UNINSURED
SAVINGS AND LOAN ASSOCIATIONS

(Items as a per cent of share capital,
December 31, 1956)

<u>Balance Sheet Data</u>	<u>Insured Associations</u>	<u>Uninsured Associations</u>
Mortgage loans (less pledged shares)	96.4%	93.7%
Cash	5.7	5.9
U. S. Governments	7.5	7.6
Borrowed money.	3.7	2.7
Reserves and undivided profits	7.7	10.6

SOURCE: U. S., FHLBB, . . . Source Book 1956, pp. 10-11.

The explanation of the fact that uninsured savings and loan associations are paying higher dividends than uninsured associations must be that uninsured associations pay out a higher proportion of their current earnings as dividends and retain less for additions to reserves and undivided profits. There are no aggregative income statements available on all uninsured savings and loan associations, but it is possible to estimate their distribution of earnings policy by investigating changes in balance sheet reserves and undivided profits. Between December 31, 1953, and December 31, 1957, insured savings and loan associations made additions to reserves and undivided profits equal to 1.1 per cent of their year-end share capital during this period.¹ During these same years uninsured savings and loan associations made average additions to reserve or "capital" accounts totaling only .4 per cent of their year-end share capital obligations. Insured savings and loan associations retained about 30 per cent of their earnings from 1953 to 1957. Uninsured associations, therefore, may be assumed to have retained only about 11 per cent of their earnings.² This means that uninsured savings and loan associations should have been able to pay

¹U. S., FHLBB, . . . Source Book, 1956, 1957, pp. 10-11.

²It is assumed that the ratios of earnings to share capital of insured and uninsured savings and loan associations were substantially equal. Insured savings and loan associations added an average of \$336 million to reserves and undivided profits in the period 1953-1957 compared with \$12 million for uninsured savings and loan associations. U. S., FHLBB, . . . Source Book, 1956, 1957, pp. 10-11.

a dividend rate about 27 per cent higher than that paid by insured savings and loan associations during these years.¹ In other words, if insured savings and loan associations paid an average of 3 per cent on share capital from 1953-1957, uninsured savings and loan associations should have paid an average dividend of roughly 3.8 per cent during this period.

It is demonstrated in Chapter IV, in the discussion of the income distribution policy of insured savings and loan associations, that the average insured savings and loan associations are required to retain only 10 per cent of current earnings, but they elect to retain about 30 per cent of current earnings in order to maintain an "adequate" ratio of reserves to share capital during a period of very rapid expansion on their share capital liability.² Uninsured savings and loan associations as a group have grown slowly in comparison with the rate of growth of insured associations.³ Most uninsured savings and loan associations, therefore, have not been faced with the necessity of rapidly increasing their reserves to maintain their reserve positions.

In addition, many uninsured savings and loan associations

¹ $1 - \frac{.89}{.70}$

² It should be remembered that the only way a savings and loan association may expand its loss reserves or "capital" is to retain current earnings.

³ From December 1952, to December 1957, share capital increased 132 per cent in insured associations, but only 33 per cent in uninsured associations. U. S., FHLBB, . . . Source Book, 1957 and 1958, pp. 10-11.

were not under much pressure to expand their ratio of reserves to share capital because they already were in a comparatively comfortable position. On December 31, 1953, reserves plus undivided profits of all uninsured savings and loan associations were 11.7 per cent of share capital, compared with 7.9 per cent for insured savings and loan associations.¹ One explanation for this condition is the fact that many of the larger uninsured savings and loan associations are relatively old institutions that have been able to acquire reserves over a long period of time. On the other hand, there are many new and rapidly growing insured savings associations.² It should, however, be noted that between 1953 and 1957 the ratio of reserves and undivided profits to share capital of uninsured savings and loan associations declined from 11.7 per cent to 10.3 per cent. This indicates that uninsured savings and loan associations as a group have sacrificed their reserve positions to pay high dividend rates. Uninsured associations as a group still maintain comfortable reserves, but it is unlikely that many associations would continue to pay dividend rates which reduce their reserve ratios.

¹Ibid.

²From December 31, 1953, to December 31, 1957, the number of insured savings and loan associations increased 446, but the number of uninsured savings and loan associations decreased 276. Ibid. Many uninsured savings and loan associations converted to an insured status during this period. These data nevertheless suggest that there are relatively few new uninsured savings and loan associations. In some states it is extremely difficult, if not virtually impossible, to charter an uninsured association. At the present time it is also very difficult for uninsured associations to become members of Federal Home Loan Banks.

It would appear that the ability of uninsured savings and loan associations to pay higher dividends than insured savings and loan associations is dependent upon a continued rapid rate of growth of insured associations. As the rate of growth of insured associations declines, they may elect to pay out a higher proportion of their incomes as dividends to shareholders. This would likely force uninsured savings and loan associations to apply for insurance coverage in order to remain competitive. From 1952 to 1957 uninsured share capital declined from 13.3 per cent to 7.8 per cent of the total share capital of savings and loan associations. It is likely that this trend will continue to the point where uninsured share capital becomes an insignificant form of investment.

CHAPTER VI

CREDIT UNIONS

The spectacular rate of growth of credit unions in recent years has been unmatched by other types of savings institutions. Many credit unions are now large and strong financial institutions. Credit unions are also a very distinct type of financial institution. Their membership is restricted to groups of individuals with common bonds of association. The potential market of individual credit unions is narrowly prescribed and many savers are not eligible for membership in any credit union.

Some of the strength of credit unions may be attributed to their restricted membership. Savers may deposit money with the hope that it will benefit fellow members. However, credit unions have also established themselves as highly competitive financial institutions. Low costs and high earnings have enabled many credit unions to pay high returns to savers. Because credit unions usually occupy rent-free offices and have a number of unpaid part-time employees, they are able to keep operating costs low.¹ The high

¹In 1957, federal credit unions had a ratio of total expense, less life insurance premiums, to total income of 37 per cent. U.S., Bureau of Federal Credit Unions, Report of Operations of Federal Credit Unions 1957, (Washington, Government Printing Office, 1958), pp. 18-19, (hereafter cited as U. S., BFCU Report . . . Federal Credit Unions, 1957). Life insurance premiums are considered to be

earnings of credit unions are due to the fact that they make mostly short-term loans at interest rates up to 12 per cent.¹

In spite of the relatively high rates of return earned by credit unions, they are not managed to maximize earnings. In fact, a large per cent of their loans are unprofitable, and they are made with the knowledge that they are unprofitable. It is estimated that loans smaller than \$190, repayable in twelve months, don't cover

direct returns to shareholders. The cost of insuring borrowers, however, is probably best regarded as an operating expense made to minimize loan losses.

In 1957, the current operating expenses of insured commercial banks, less interest paid on time and savings deposits, were 49 per cent of current operating earnings, U. S., FDIC, Annual Report, 1957, p. 128. It is particularly impressive that credit unions operate with lower expense ratios than banks if one compares their relative asset portfolios. The assets of credit unions consist mostly of small short-term loans which require considerably more management per dollar than most bank assets. The average loan made by Federal credit unions in 1957 was \$516. U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 24. It might also be useful to compare the expense ratio of credit unions with the expense ratio of small loan companies. In 1956, Michigan licensed small loan companies had a ratio of total expenses, less interest paid on borrowed funds and Federal taxes, to earnings of 59 per cent. Michigan, State Banking Department, Abstract of Reports of Small Loan Licensees as at December 31, 1956, (Lansing, 1957), p. 2.

¹In 1957 the total loans of federal credit unions yielded an average of 10.3 per cent. U. S., BFCU, Report . . . Federal Credit Unions, 1957, pp. 12-18. Competing lending institutions, small loan companies for example, frequently charge much higher rates of interest than credit unions.

Federal credit unions may lend up to \$4.00 unsecured, and any amount on a secured basis, as long as no single loan is in excess of 10 per cent of the credit union's capital and surplus. Loans have a maximum maturity of three years. State chartered credit unions frequently may make longer term loans than federal credit unions. They frequently make a significant number of relatively long-term real estate loans. In 1956, 25.2 per cent of the loans of state-chartered credit unions were secured by real estate. Many of these loans undoubtedly were made with maturities in excess of three years. "State-Chartered Credit Unions in 1956" Social Security Bulletin, XX (November 1957), pp. 18-20.

their costs.¹ Very few credit unions vary the interest rate they charge with the size of the loan. This is certainly clear evidence of the failure of the credit unions to maximize earnings. Most credit unions appear to be quite willing to make small loans. Nevertheless, most credit unions earn a sufficiently high average rate of return on their assets to enable them to pay savers very competitive dividends.

Liquidity

It is important to observe that the high earnings of credit unions have not been achieved at the expense of sound liquidity structures. On December 31, 1957, loans were 70 per cent of the assets of federal credit unions.² On the same date, mortgage loans were 83 per cent of the assets of insured savings and loan associations.³

¹John Tougas Croteau, The Federal Credit Union: Policy and Practice, (New York: Harper & Bros., 1956), p. 85.

²U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 12. In 1956, loans were 74 per cent of the total assets of state-chartered credit unions. "State-chartered Credit Unions in 1956," Social Security Bulletin, p. 19.

³U. S., FHLBB, . . . Source Book, 1958, p. 11. In spite of the fact that loans of credit unions are a smaller per cent of total assets than are loans to assets of savings and loan associations, credit unions still manage to earn a much higher return on their total assets than savings and loan associations earn. In 1954, the gross earnings ratios of the two institutions were 6.8 per cent and 4.7 per cent respectively. Savings and loan associations, of course, are not allowed to make profitable consumer loans. Their lending operations are essentially limited to mortgage loans. Croteau, pp. 38, 76, U. S., FHLBB, 1954 Combined Financial Statements, pp. 14, 48.

Knowledge of the liquidity position of credit unions is also very important in estimating the investment quality of credit unions shareholdings. The liquidity of the credit unions determines the speed with which withdrawal requests may be met. Credit unions generally pay withdrawal requests on demand and most savers expect that they may withdraw their funds on demand. Credit unions, moreover, actually appear to be relatively liquid compared to similar savings institutions. For instance, on December 31, 1957, federal credit unions held liquid assets equal to 27 per cent of their assets, compared with 11 per cent for insured savings and loan associations.¹ In 1957, credit unions and savings and loan associations maintained roughly equal percentages of their assets in cash and U. S. Governments, but credit unions held substantial additional liquid assets in the form of share capital in savings and loan associations. On December 31, 1957, federal credit unions held 14.1 per cent of their assets in savings and loan association shares.²

¹Liquid assets include cash, U. S. Bonds, savings and loan shares, and loans to other credit unions. If loans to other credit unions are excluded from the calculation, the liquidity ratio is 25 per cent. U. S. BFCU, Report . . . Federal Credit Unions, 1957, p. 12; U. S., FHLBB, . . . Source Book, 1957, p. 11.

²U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 12. State-chartered credit unions in at least one state, Michigan, may not invest funds in savings and loan associations located in other states. Delmar C. Nagel, The Chief Examiner of Michigan Chartered credit unions, explains that the Michigan rule "keeps funds in the home state." Apparently prior to the ruling, a substantial number of state-chartered credit unions were taking advantage of higher rates of return paid on share capital in several areas outside Michigan. It is really difficult to see the wisdom of such a regulation. In fact, credit unions perhaps would be wise to invest funds in savings and loan associations outside Michigan even if returns were equal. It is quite possible that during a period of

Of course, it may be argued effectively that credit unions must be more liquid than member savings and loan associations because they do not have secure exterior lines of credit in case of emergency. In fact, it is quite possible that credit unions would experience difficulty in renewing maturing notes payable in case of emergency.¹ It should also be noted that shareholdings in credit unions appear to turn over considerably faster than share capital and somewhat faster than savings deposits. The annual turnover of credit union shareholdings may be roughly estimated at .60 compared with .50 for savings deposits and .32 for share capital.²

It is also quite likely that individual credit unions are more vulnerable to economic recessions than are other savings institutions. This is because both the debtors and creditors of most credit unions have the same employer. If a given factory or office

economic crisis in Michigan when credit unions would need all available liquidity, savings and loan associations in the state might find it relatively more difficult to pay their obligations on demand than savings and loan associations in other states.

¹On December 31, 1957, notes payable (mainly to banks) of federal credit unions were 2.3 per cent of assets. U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 12. Federal credit unions are authorized to borrow up to 50 per cent of their shareholdings, but few credit unions borrow heavily. They, of course, could conceivably improve their earnings with heavier borrowing, but without secure lines of credit this would be a hazardous policy. Savings and loan associations definitely enjoy a competitive advantage of secure lines of credit from Federal Home Loan Banks.

² The estimated credit union shareholdings turnover was derived from a Federal Reserve Bank of Chicago continuing sample survey of District credit union activity. Shareholdings in credit unions are usually withdrawable on demand, although some credit unions require notice. In times of distress credit unions may limit the rate at which an individual may withdraw his funds to a given amount per week or month. Croteau, p. 170.

severely restricts its payroll, it is quite possible that the savers in the firm's credit union will have to withdraw part of their savings. It is also quite possible that borrowers simultaneously would slow down on repayments. Savings and loan associations and commercial banks, on the other hand, attract savers employed by a variety of industries and lend to equally well diversified borrowers.

There is also some evidence to suggest that credit unions may be pressured to extend additional loans during a period of financial crisis when loan repayments are slow and when savers are demanding their funds. For example, during an industrial strike labor leaders, who are often very influential in credit union management, may insist that loans be made to strikers in need. Credit unions guided by this management philosophy must maintain substantial liquidity if they are to be successful.¹

The arguments outlined above indicate that credit unions generally must be more liquid than competing financial institutions. The data presented indicate that credit unions, in fact, are relatively liquid. Nevertheless, the relatively good liquidity that credit unions maintain is no guarantee that savers always will be able to make withdrawals on demand. Without secure lines of credit, the liquidity of credit unions could be depleted rapidly in a financial panic.

¹Ibid., Delmar C. Nagel, Examiner of Michigan-chartered credit unions, in an interview confirmed that labor leaders dominate many credit unions.

Reserves

Very closely tied to the question of the liquidity of a savings institution is its potential solvency. The ultimate solvency of credit unions is of vital interest to savers because shareholdings in credit unions are not insured by a federal corporation.¹ If a credit union becomes insolvent, savers stand to lose at least some of their investment. High loss reserves are the only ultimate protection that credit union savers have against the danger of loss of their savings.

Credit unions appear to maintain reserves or "capital" roughly equal to that of competing financial institutions. On December 31, 1957, federal credit unions held "capital" in the forms of regular-reserves, special reserve for delinquent loans, reserves for contingencies, special reserves, and undivided earnings equal to 8.6 per cent of assets.² Insured savings and loan associations and commercial banks had ratios of "capital" to assets of 6.8 per cent and 8.3 per cent respectively on December 31, 1957.³ Credit unions also appear to make additions to reserves about as rapidly as competing financial institutions. For instance, in 1957, federal credit

¹Some credit union shareholdings are insured by private companies. The Michigan Credit Union League is attempting a limited plan of self insurance of its membership. None of these insurance plans are of proven reliability.

²U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 13.

³U. S., FHLBB, . . . Source Book, 1957, p. 11; U. S., FDIC, Annual Report, 1957, pp. 112-13.



unions added 32 per cent of their earnings to reserve accounts.¹ Insured savings and loan associations retained about an equal per cent of earnings in 1957.

Federal credit unions are required to credit 20 per cent of their earnings to regular reserves until this reserve equals 10 per cent of shareholdings.² Few credit unions have regular reserves as high as 10 per cent of shareholdings. Federal credit unions also are required to establish special reserves for delinquent loans.³ Federal credit unions, therefore, are required to build up reserves relatively rapidly, while savings and loan associations have done so more or less voluntarily.⁴

It may be argued effectively that credit unions need substantial reserves because of the relatively risky quality of their loans —on December 31, 1957, 4.5 per cent of federal credit union loans outstanding were delinquent.⁵ Many of these loans will be recovered eventually, but it is likely that a substantial number of individual

¹U. S., BFCU, Report . . . Federal Credit Unions, 1957, pp. 18, 20.

²U. S., Code Annotated, title 12, sec. 1762.

³The requirement is that the special reserve equal 10 per cent, 25 per cent and 80 per cent of the balance of loans delinquent from 2-6 months, 6-12 months, and more than 12 months, respectively. U.S., Code of Federal Regulations, title 45, c.3, sec. 302.3.

⁴The average savings and loan association could legally credit as little as 10 per cent of earnings to reserves, but about 30 per cent of earnings have been retained in recent years.

⁵U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 24.

credit unions carry a proportionately high burden of delinquent loans. Nevertheless, loss reserves of most federal credit unions in the past appear to have been adequate because federal credit unions have a history of low losses to members in cases of liquidation.¹

Management

Relatively large loss reserves, however, are not complete insurance against possible credit union insolvency. Poor management, existing because of membership indifference, has been the major cause of credit union failures.² Certainly a partial explanation of this situation is the unrealistic membership voting system used by federal credit unions. Each member, borrower or lender, has only one vote regardless of the size of his financial interest. Such a system would not appear to give adequate voice to large shareholders who presumably would have a vital interest in the quality of management. There is also some question of the adequacy of the efforts of state and federal supervisory authorities to control management practices. Examiners apparently tend to limit themselves to actual detection of fraud and assurance that laws are not violated, rather than critically judging the over-all operating practices of credit unions.³

¹From 1935 to 1953 members lost a total of \$129,000 in liquidations of federal credit unions. This figure represents only .05 per cent of the average of shareholdings during these years. Derived from Croteau, pp. 8, 107.

²Ibid., p. 114.

³Ibid., p. 137.

It is also interesting that the trade association of credit unions, the Credit Union National Association, has consistently opposed plans for federal insurance of share accounts. The announced reason is that they don't believe share insurance is necessary or worth its cost. Similar arguments are used by CUNA to explain its objection to a central bank for credit unions. There is, however, evidence to indicate that many credit union officers object to the closer supervision and detailed reports that would be required with federal share insurance.¹

Statistical Findings

The rapid growth of credit unions is, of course, partially the result of the fact that credit unions pay comparatively high rates of return on savings. In 1956, 54 per cent of the federal credit unions in the United States paid at least 4 per cent interest on shareholdings, and 18 per cent paid more than a 5 per cent return.² Table 10 on the following page, illustrates that federal credit unions in District cities, on the average, pay higher rates of return than their competitors. It should also be noted that many credit unions provide free life insurance coverage to savers equal to their shareholdings. This insurance costs the credit unions about \$.66 per \$100 balance per year.³ The value of this insurance protection would exceed the rate paid by credit unions because

¹Ibid., pp. 163-169.

²U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 9.

³Croteau, p. 53.

TABLE 10
COMPARATIVE INTEREST RATES PAID ON SAVINGS
DECEMBER 31, 1956

<u>Metropolitan Area or Center</u>	(1) Unweighted average interest rate paid by federal credit unions	(2) Weighted average per cent on share capital	(3) Weighted average per cent on savings deposits
Chicago	3.6%	3.1%	2.0%
Decatur ^a	4.0	3.4	1.5
Peoria	4.5	3.1	2.1
Quad Cities ^a . .	3.5	3.1	1.2
Rockford	3.7	2.5	1.5
Fort Wayne . . .	3.8	2.8	2.0
Indianapolis . .	3.8	3.0	2.0
South Bend . . .	3.5	2.5	2.0
Terre Haute . . .	4.2	2.8	2.0
Des Moines ^a . . .	4.0	3.0	2.0
Sioux City ^a . . .	4.0	3.0	2.0
Detroit	3.3	2.6	1.0
Kalamazoo	3.6	3.0	1.9
Madison ^a	3.5	3.0	1.0
Milwaukee ^a	3.0	3.6	1.6
b	3.8	3.0	2.0
b	3.8	3.0	2.0
b	3.8	3.0	2.2
b	3.9	3.0	2.0
b	3.1	3.0	2.5
b	3.5	3.0	2.5
b	3.8	2.5	2.0
b	3.5	2.5	2.0
b	3.8	3.0	2.5

^aThere are very few federal credit unions in these cities.

^bMetropolitan areas not identified to preserve the identity of individual banks.

SOURCES: (1) Data furnished to the Federal Reserve Bank of Chicago by the U. S. Bureau of Federal Credit Unions.
(2) Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.
(3) Savings survey of the Federal Reserve Bank of Chicago.

individuals would be unable to purchase equally low cost insurance. Savers in associations who receive free life insurance should include at least .66 per cent return in the calculation of their investment earnings.

It is, nevertheless, difficult to demonstrate statistically that the rate of growth of individual credit unions or credit unions in a metropolitan area is a function of the rate of interest they pay on savings. Analyses of the rates of growth of individual Michigan chartered credit unions from 1955 to 1956 did not indicate a significant relationship between the rate of growth of individual credit unions and the rate paid on shareholdings during the period studied. An additional study of the rate of growth of shareholdings in credit unions in 24 District metropolitan areas and centers from 1952-1956 indicated no significant relation between the growth in the total of credit union shareholdings in cities, and either the average rate of interest paid, or the increase in the rate of interest paid on shareholdings. The latter analysis was limited by the fact that metropolitan area figures on rates of interest paid were unweighted. However, there is no consistent relation between the size of credit unions and the rate of interest they pay.

It is really somewhat surprising that interest rates do not show a more positive relation to relative rates of growth of either individual credit unions or the total of credit unions in metropolitan areas. This conclusion, however, seems plausible in view of other observed relations. The rate of growth of shareholdings in credit unions located in District metropolitan areas and centers

appears to relate positively to increases in the potential membership of credit unions. (See Table 11). Further evidence of this relationship is the fact that the dollar increase in shareholdings from 1952 to 1956 correlated very closely with the increase in the number of shareholders during that period (See Table 11). Statistical analysis also indicated that credit union shareholdings tend to be highest in areas where there are relatively few insured savings institutions, principally savings and loan associations. This relation suggests that credit unions may be most popular where competing savings institutions are not conveniently available (See Table 12).

There are several additional factors responsible for the growth of credit unions that may not be statistically evaluated. Credit unions are much easier to establish than competing financial institutions. Promoters of new banks or savings and loan associations must secure substantial pledges of capital and establish a definite need for a new institution. Promoters of credit unions need only establish their integrity and the common bond of the potential membership, and pay a nominal charter fee. Credit union growth is also somewhat encouraged by the fact that savers frequently may save by payroll deduction or at credit union offices located in the plant or office where the saver is employed. Credit unions also usually enjoy the direct support of the local trade union and management. Both company and union publications frequently stress the advantages of credit union membership.

TABLE 11

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**VARIABLES WHICH RELATE TO THE INCREASE IN FEDERAL
CREDIT UNION SAVINGS
(December 1952 - December 1956)**

	(1)	(2)	(3)
<u>Metropolitan Area</u>	<u>Change in the Number of Credit Union Accounts</u>	<u>Change in Potential Credit Union Membership</u>	<u>Increase in Credit Union Savings</u>
Chicago	26.5 %	28.0 %	40.6 %
Decatur ^a	50.1	167.9	119.7
Peoria	35.9	18.5	89.8
Quad Cities ^a	5.7	-2.9	35.4
Rockford	17.1	72.1	132.4
Fort Wayne	21.0	15.3	99.4
Indianapolis	84.2	110.8	92.6
Muncie	50.0	61.7	143.0
South Bend	27.1	5.2	89.2
Terre Haute	24.0	-9.0	94.3
Des Moines ^a	2.2	-40.0	21.0
Sioux City ^a	.6	-25.0	100.8
Battle Creek	30.1	-4.8	112.4
Bay City	230.3	69.3	536.7
Detroit	66.4	6.4	175.4
Flint	223.4	41.4	457.5
Grand Rapids	102.3	32.6	301.7
Jackson	129.9	54.4	416.8
Kalamazoo	63.2	33.3	258.7
Lansing	112.4	24.9	315.1
Muskegon	66.7	6.0	230.3
Saginaw	125.6	64.4	260.4
Madison ^a	262.4	200.0	663.1
Milwaukee ^a	- .6	-16.7	21.6
Correlation coefficient of column variable with column three	.54	.95	1.00

^a Federal credit unions are relatively small or few in number
SOURCE: Federal Reserve Bank of Chicago

TABLE 12

THE RELATION OF INSURED SAVINGS OFFICES TO
CREDIT UNION SHARE HOLDINGS

	(1)	(2)	(3)
<u>Metropolitan Area</u>	<u>Savings and loan offices per 10,000 pop. Dec. 1956</u>	<u>Insured savings offices per 10,000 pop. Dec. 1956</u>	<u>Per capita share- holdings in credit unions Dec. 1956^a</u>
Fort Wayne	.11	.82	\$69.80
South Bend	.30	1.23	22.55
Indianapolis	.35	1.41	25.74
Terre Haute	.78	1.65	9.70
Cedar Rapids	.10	.89	41.33
Des Moines	.33	.87	42.55
Dubuque	.17	.68	48.28
Sioux City	.32	1.27	19.46
Waterloo	.61	1.11	63.95
Detroit	.17	.89	45.47
Kalamazoo	.28	1.57	13.50
Green Bay	.31	1.16	54.18
Madison	.44	1.27	69.05
Racine	.51	1.30	28.71
Milwaukee	.62	1.12	73.35
Chicago	.40	.76	22.35
b	.24	.24	14.48
b	.45	.45	67.24
b	.15	.15	45.84
b	.13	.13	65.06
b	.12	.12	15.49
b	.10	.10	35.26
b	.06	.06	41.24
b	.08	.08	64.47
b	.22	.22	38.34
b	.13	.13	29.25
Correlation coefficient of column variable with column three	-.517	-.484	1.000

^a Assets are used as estimates of share holdings in state-chartered credit unions in Illinois, Indiana, Iowa and Wisconsin.

^b Metropolitan areas are not identified to preserve the identity of individual savings institutions.

SOURCES: (1) (2) Savings office lists of the Federal Reserve Bank of Chicago and the Federal Home Loan Banks of Indianapolis, Chicago and Des Moines.

SOURCES: TABLE 12 (continued)

(3) Federal credit union data was furnished to the Federal Reserve Bank of Chicago by the Bureau of Federal Credit Unions. See Table 22, Appendix D, for sources of data on state credit unions.

The Outlook for Credit Union Growth

It is always difficult to predict the future prospects of economic phenomena, and certainly credit unions are no exception. It is difficult to foresee factors that would seriously inhibit the growth and health of credit unions if the economy continues to avoid severe depressions. However, it is not likely that credit unions would weather a severe depression without major injury. Credit unions don't have a central bank that would act as a lender of last resort, or federal share insurance to preserve public confidence in a major depression. Although individual credit unions are not equally vulnerable to economic reversals, credit unions in industries which suffer severely in a major future economic recession would likely have to fight for survival.

It is also quite possible that credit unions will face stiffer competition in the future. Savings and loan associations and banks are raising interest rates paid on savings, and they are constructing attractive and numerous new offices to attract savers. In addition, there are limits to the number of organizations eligible to form credit unions.¹ Much of the past growth of credit unions has

¹100 potential members with a common bond of occupation, residence, or association are required to establish a federal credit union. The Bureau of Federal Credit Unions has actively encouraged chartering of new groups. Croteau, pp. 130-134.

been the result of the establishment of new credit unions.¹ Certainly there is a definite limit to the number of large firms that may charter credit unions. When this limit is ultimately approached, the rate of growth of credit unions, once firmly established, would be limited by the rate of growth of firms in which credit unions are established.

¹The number of federal credit unions increased from 4,013 in 1947 to 8,735 in 1957. U. S., BFCU, Report . . . Federal Credit Unions, 1957, p. 2.

CHAPTER VII

U. S. SAVINGS BONDS

U. S. Savings Bonds are properly included in a study of personal liquid savings. They may be converted to cash rapidly at fixed redemption prices which are dependent upon the number of years the securities have been held. U. S. Savings Bonds are probably the most secure form of personal liquid savings, although share capital, savings deposits, and U. S. Savings Bonds are roughly similar investments in terms of safety of principal.

U. S. Savings Bonds continue to be a very significant form of liquid financial investment. On December 31, 1956, U. S. Savings Bonds outstanding in the United States exceeded savings accounts in commercial banks.¹ There are no data on the volume of U. S. Savings Bonds outstanding in the District, but available data indicate that U. S. Savings Bonds are decreasing in popularity as an investment. For instance, from January 1957 to June 1958, redemptions of Series E Savings Bonds in District states exceeded sales by \$226 million.²

¹U. S., FHLBB, Source Book, 1957, p. 15.

²Sales of Series E Savings Bonds in the five District states were \$1,260 million. Redemption of Series A-E Savings Bonds were \$1,486 million. Very few redemptions of Series A-D Savings Bonds are included in the redemption data. U. S., Treasury Department, U. S. Savings Bond Division, "U. S. Savings Bonds - Sales of Series E and H Bonds," 1957-1958, (monthly), and "Redemptions of Series A through E Savings Bonds," 1957-1958 (monthly).

Data also indicate that the flow of funds into and out of U. S. Savings Bonds is small in relation to the combined flow of funds into and out of banks and savings and loan associations. In the five largest District cities¹ E and H Bond sales averaged roughly 10 per cent of the combined gross inflow of savings and loan associations from January 1957 to September 1958.²

Types of U. S. Savings Bonds

Of the types of U. S. Bonds sold since 1954, only Savings Bonds (E and H Bonds) are considered here because they are most equivalent to other forms of personal liquid savings. Type E bonds are by far the most popular U. S. Savings Bond. They currently yield 3.25 per cent if held to maturity and somewhat less if redeemed before maturity. E Bonds are nonmarketable, but they may be redeemed immediately for cash at stated redemption prices which are independent of money market conditions.

Series H Bonds are similar to E Bonds but the bond holders receive interest payments by check every six months. Both types of bonds yield the same rate of interest, but H bonds are not issued in denominations less than \$500. H bonds are generally not sold by means of payroll deduction principally because they appeal to larger savers.

The yield on both E and H Bonds is lower than is available in local savings and loan associations in most major District areas,

¹Chicago, Detroit, Des Moines, Indianapolis, and Milwaukee.

²Federal Reserve Bank of Chicago, unpublished series on gross inflows in the five major District metropolitan areas.

and it is certainly lower than is obtainable from high rate paying associations in Milwaukee, Chicago, and other cities. Furthermore, if buyers of U. S. Savings Bonds need their money before the maturity dates of their bonds, their investments would earn less than available from almost any savings and loan association or, in some cases, from commercial banks.¹

Payroll Deduction

Undoubtedly one major reason why E Bonds have been relatively popular is the fact that they may be purchased very conveniently by payroll deduction. Payroll deduction is a procedure that was started during the war as a patriotic service of business. Many firms undoubtedly still feel some patriotic compulsion to retain the system during the postwar period and, of course, it is difficult to eliminate employee services once established.² Commercial banks also publicize the fact that they are willing to handle the paperwork of payroll purchases of U. S. Savings Bonds as a promotion to attract commercial deposits.

The existence of the very convenient method of saving by payroll deduction undoubtedly encourages some individuals to purchase more bonds than they would if they had to personally take pay from their envelopes to invest it. Unfortunately, there are no data on the

¹If E bonds are redeemed before they have been held for three years they yield less than 3 per cent.

²The Treasury Department in its correspondence with firms stresses the patriotic service nature of payroll deduction. Treasury citations have been presented to firms that have signed up 50 per cent of their employees for payroll purchase of U. S. Savings Bonds.

value of savings bonds sold by payroll deduction or the extent which the service is available, but it is likely that a high portion of \$25, \$50, and \$100 bonds are purchased by payroll deductions.

Seventy per cent of the value of series E and H Savings Bonds sold in 1955 and 1956 were in denominations of \$100 or less, and 90.4 per cent were in denominations of \$1,000 or less.¹ Even the purchaser of a \$100 bond would not be strongly motivated to entrust his funds in a savings and loan association that paid as much as .5 per cent higher returns than savings bonds. In such a situation, the purchaser of a \$100 bond would receive only \$.50 per year higher return, which well might not compensate for the inconvenience of locating and investigating a high paying savings and loan association, particularly one in another city. This argument applies equally to the small saver with limited total holdings of U. S. Savings Bonds purchased in small denominations over time.

If one does not accept the proposition that it is inherently desirable for individuals rather than financial institutions to purchase U. S. Government obligations, it would be possible to criticize the existing payroll deduction system because it adversely affects private savings institutions. This point, however, is not quantitatively very significant. Individuals' savings in all banks, credit unions, and savings and loan associations would not have increased more than 5 per cent more rapidly than they did in the decade 1947-

¹Treasury Bulletin, May 1957, p. 37.

1956, without payroll deduction of U. S. Savings Bond sales.¹ This calculation assumes that as much as one half of U. S. Savings Bond sales are made by payroll deduction, and that purchasers would have invested an amount equal to their payroll purchases of U. S. Savings Bonds in private savings institutions.

In addition to purchase by payroll deduction, U. S. Savings Bonds may be purchased in most banks and in post offices in cities where there are no banks. Banks also frequently sell bonds by automatic "bond a month" deductions from demand deposits. No other type of savings is so conveniently available to so many potential savers.

Statistical Findings

Table 13 contains estimates of per capita sales of U. S. Savings Bonds by metropolitan areas.² Unfortunately, there are no data on redemptions of U. S. Savings Bonds in metropolitan areas. Numerous variables were correlated with per capita Savings Bond sales in order to establish possible causes of the observed variance in

¹From data in U. S., FHLBB, . . . Source Book, 1957, p. 15.

²The Federal Reserve Banks are the agencies that collect data on sales of U. S. Savings Bonds. These data are compiled on a county basis but with adjustments to reflect estimates of the location of the purchasers rather than the location of the selling agents. The estimates, however, are of questionable accuracy because of the problem of allocating payroll bond sales. Large city banks handle the payrolls of firms employing individuals residing in many counties. In 1946 some estimate was made of the quantitative importance of bond sales to buyers living in counties other than the one in which the sale was made. Weights calculated in 1946 are still used on current data. The data published today are probably not very accurate estimates of purchase of U. S. Savings Bonds by counties, but there is no way to estimate the probable error. The data are really intended to provide measures for sales quota determination and observation of results.

TABLE 13

PER CAPITA SALES OF U. S. SAVINGS BONDS
(Series E and H)

Metropolitan Area	1955	1956	1957
Champagne-Urbana	\$43	\$37	\$31
Decatur	57	51	50
Peoria	30	25	18
Rockford	50	46	46
Springfield	47	42	41
Quad Cities	46	42	30
Chicago	56	48	42
Fort Wayne	48	48	38
Muncie	26	23	24
South Bend	48	36	35
Indianapolis	44	39	35
Terre Haute	44	39	35
Cedar Rapids	75	61	53
Des Moines	53	42	35
Dubuque	57	51	36
Sioux City	53	45	35
Waterloo	44	41	35
Bay City	30	41	18
Detroit	60	42	51
Flint	63	60	55
Grand Rapids	35	28	22
Jackson	27	22	22
Kalamazoo	24	30	20
Lansing	41	39	30
Muskegon	21	23	19
Battle Creek	12	13	11
Saginaw	30	43	24
Green Bay	31	25	20
Kenosha	49	53	39
Madison	33	30	28
Racine	43	35	29
Milwaukee	46	40	33

Source: Federal Reserve Bank of Chicago.

bond purchases. No significant relations were found. Tested variables included per capita savings deposits and demand deposits, per capita banks and savings and loan associations, interest rates paid by banks and savings and loan associations, and rates of growth of share capital and savings deposits. An attempt was also made to test variables which might influence changes in sales of Savings Bonds. Several significant relations were obtained for individual years, but no single relation appeared to be significant over time. In addition to the variables used to test per capita Savings Bond sales, variables such as changes in the rates of interest paid on share capital and savings deposits, and changes in the flow of share capital and savings deposits were tested with changes in sales of Savings Bonds.

Based upon the relations observed, it does not appear that differences between per capita U. S. Savings Bond Sales or rates of change in U. S. Savings Bond sales in District metropolitan areas depend upon the rates of interest paid or the facilities provided by private savings institutions. This conclusion lends some support to the hypothesis that a major portion of current purchases of U. S. Savings Bonds are made by payroll deduction and that payroll purchase is attractive because of its convenience.

There are additional reasons why the analysis did not indicate a significant relation between the interest rates paid by banks and savings and loan associations and U. S. Savings Bond sales. In some respects U. S. Savings Bonds may appeal to different types of savers than savings deposits or share capital. U. S. Savings Bonds are generally believed to provide the greatest ultimate safety of any type of investment. Savers may purchase U. S. Savings Bonds to

give defensive security to their portfolios. In addition, U. S. Savings Bonds offer conservative savers higher earnings than are available from commercial banks. It is also quite likely that many purchasers of U. S. Savings Bonds don't trust savings and loan associations or are unaware of their offerings. In addition, very large investors are legally limited in the amount of U. S. Savings Bonds they may purchase in any one year.¹ Banks and savings and loan associations successfully attract some very large accounts.²

The Outlook

As long as yields on U. S. Savings Bonds remain substantially below yields obtainable on comparable investments in many areas, it is not likely that they will be any more able to attract large investors in the future than they appear to be at the present time. However, the continuation of payroll deductability of U. S. Savings Bond purchases, gives them a competitive advantage which likely will preserve their appeal to many small savers. Without a significant change in the current pattern of interest rewards on savings, it is likely that U. S. Savings Bonds will remain a very important although a slowly declining form of personal liquid savings.

¹The Treasury Department maintains an upper limit on the amount of U. S. Savings Bonds that an individual may purchase in a given year. Effective May 1, 1957, individuals could not purchase more than \$10,000 of E and H bonds in a single year.

²See Appendix D, Table 41.

CHAPTER VIII

FINANCIAL INTERMEDIARIES AND THE FLOW OF LOANABLE FUNDS

The statistical analysis sections of this study have illustrated the rapid growth of near-money assets in the District. It was indicated that stocks of savings may shift between financial institutions and that the financial institutions are growing at quite different rates. This chapter describes the quantitative effects of changes in individuals' savings in financial intermediaries upon the supply of loanable funds and some of the implications of this fact upon monetary policy.

The Saving - Investment Process and the Supply of Loanable Funds

The financial intermediaries considered in this study, serve as middlemen between savers and borrowers of money. Banks, savings and loan associations, and credit unions provide savers with low yield, safe, and liquid investments which require a minimum of investor attention. The financial institutions invest in less liquid, less secure, and higher yielding investments than their own obligations to individual savers. Without the type of investment offered by financial intermediaries, many individuals undoubtedly would be unwilling to part with accumulated cash. Financial intermediaries,

therefore, tend to increase the economy's supply of loanable funds.¹

Financial institutions are successful in their role as financial intermediaries because all savers aren't likely to demand their money simultaneously, and because the institutions are better able and more willing to judge and absorb risks and diversify investments than are most individuals. Savings and loan associations and other nonbank financial intermediaries perform essentially the same economic service as banks. Individuals may provide funds for long-term risk investment yet themselves be provided with liquid secure "near money" investments. The individual is the supplier of funds, but the institution is the real enterprising seeker of relatively risky but rewarding investment opportunity.

There has been much interest among economists in the attempt to identify the sources of loanable funds. In order to supply loanable funds, it is generally believed that individuals must either reduce their stock of idle cash or perform a joint act of saving and offering funds to borrowers, or banks must be permitted to increase their loans and investments. It is possible, however, that there will not be an expansion in loanable funds equal to the amount of money an individual "invests" in a financial institution. Financial institutions themselves maintain idle cash balances. It is also possible that the quantity of loanable funds may increase

¹Loanable funds are considered to be funds which individuals or institutions are willing to make available to borrowers at a given point in time, at existing rates of return. An increase in loanable funds implies an increased willingness or ability of lenders to loan funds at existing market rates.

without an expansion in the quantity of money or an increase in the willingness of individuals to invest. For example, an individual may withdraw his funds from a savings deposit in a commercial bank and deposit the money in a savings and loan association without sacrificing his stock of money or adding to his savings. The ultimate effect of such a deposit transfer is to increase the quantity of loanable funds.

It is important to emphasize that changes in the supply of loanable funds are measured by the changes in the offerings of the intermediaries, not by the changes in the investments of individual savers; however, there is also the problem of whether an increase in the cash assets of a financial intermediary resulting from increased deposits or "shares" represents a shift in the supply of loanable funds function or merely a movement along the function. In order to answer this question, it is necessary to establish the probable slope of the supply of loanable funds function of financial intermediaries. Intermediaries generally lend nearly all available assets at market interest rates, but the market rate of interest on their investments may influence the amount of money they have available to invest. With very low interest earnings nonbank financial intermediaries presumably would be unable to pay sufficiently high dividends to attract savings. At high interest rates both bank and nonbank financial intermediaries might attract a relatively large volume of savings. This latter fact makes it somewhat difficult to envision the supply of loanable funds function of financial intermediaries.

If it is assumed for the moment that the volume of the assets of intermediaries is independent of their earnings and that they are convinced that future interest rates will not be higher than current interest rates, they may be expected to lend all available funds, after deduction of normal liquidity reserves, at market interest rates. In this case the supply of loanable funds of intermediaries would rise vertically. (See Figure I. Point "S" on the horizontal axis represents the available investment funds of intermediaries.)¹

It is, however, likely that the actual supply of loanable funds function of financial intermediaries generally has less than infinite slope due to uncertainty about the course of future interest rates. In other words, at very low interest rates intermediaries are likely to be fairly liquid, but at "unusually" high interest rates they likely will be tempted to deplete their liquidity. The supply of loanable funds function of intermediaries, however, will retain a strong positive slope because they generally may be expected to loan virtually all of their available funds.² (See the S'S' function in Figure I.)

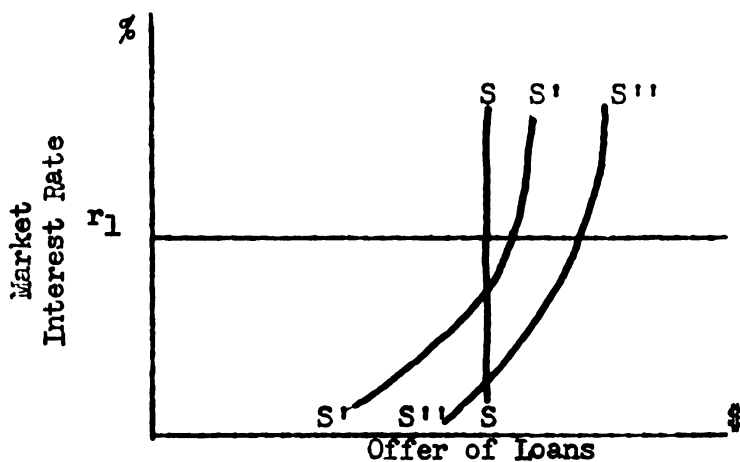
It was observed that the level of the assets of intermediaries may depend upon their earnings rate. This fact would tend to

¹In this case, it is most useful to think of a supply of loanable funds function with an infinite time dimension. Point "S" in Figure I may be considered as the daily average "surplus" funds held by intermediaries.

²During a period of rising interest rates to extraordinarily high levels it is likely that intermediaries will deplete their "excess" liquidity so that the supply of loanable funds function will ultimately become vertical. (See Figure II.)

FIGURE I

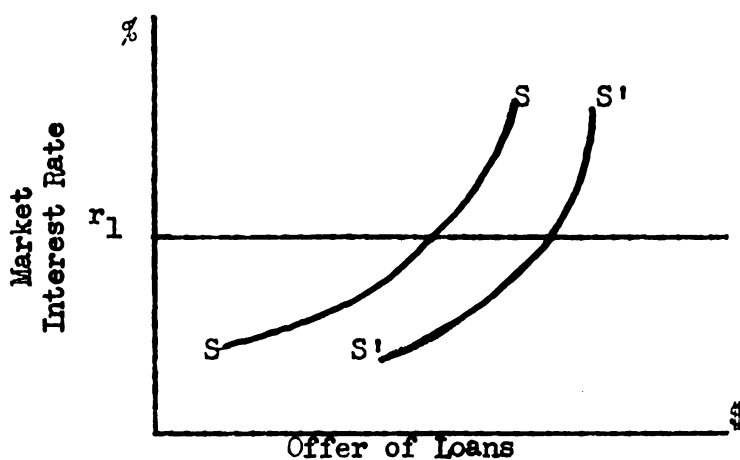
THE SUPPLY OF LOANABLE FUNDS OF FINANCIAL INTERMEDIARIES
(Assets independent of dividends paid)



NOTE: r_1 is best considered as an average yield on the earning assets of intermediaries. Of course, the prevailing market rates of interest will be influenced by changes in the supply of loanable funds.

FIGURE II

THE SUPPLY OF LOANABLE FUNDS OF FINANCIAL INTERMEDIARIES
(Assets a function of dividends paid)



modify the slope of the supply of loanable funds function of financial intermediaries. At extremely low interest rates most intermediaries, particularly nonbanks, would be unable to attract a significant volume of savings. Rising interest rates presumable would expand the assets of intermediaries, but very high interest rates may not expand the assets of intermediaries significantly more than moderately high interest rates. The supply of loanable funds function in this case might appear as SS in Figure II.

If it is assumed as in Figure I that the Lending ability of intermediaries is not affected by market interest rates on their investments, a shift in savings stocks to financial intermediaries would shift the supply function temporarily from S'S' toward S"S" in Figure I. An increase in the rate of flow of savings into financial intermediaries would result in a "permanent" shift in the supply function from S'S' toward S"S" in Figure I. However, if it is assumed that the earnings rates of intermediaries influence the level of their available investment funds, a shift in savings to financial intermediaries may be reflected in either a movement along their supply of loanable funds function or in a shift in the function.

If the dividends paid by intermediaries are solely a function of the rate of earnings they receive on invested assets, increases in their assets attributable to an increase in their dividend payments generally would merely reflect a movement along the SS curve in Figure II. However, a one-time shift of savings stocks to intermediaries, occasioned not by an increase in their interest rate but by a change in some other variable, would temporarily shift the SS

function in Figure II toward $S'S'$. Moreover, an increased flow of savings into intermediaries stimulated by some factor other than higher dividends on savings would "permanently" shift the supply of loanable funds function in Figure II.

The functions described in both Figures I and II are useful in the study of the supply of loanable funds function; although it is likely that the actual supply of loanable funds function of financial intermediaries resembles the function in Figure II. The analyses performed in this study clearly indicate that the level of the assets of financial intermediaries is partially dependent upon interest rewards paid to savers. It is also reasonably certain that there is a close relationship between the rate of earnings of financial intermediaries and their dividend rates. However, it is likely that the rapid postwar growth of financial intermediaries has been reflected in both a movement along the supply of loanable funds function and in a shift in the function. Higher interest rates appear to have been partially responsible for the growth in the assets of intermediaries, but it is also likely that increased incomes, growing confidence in nonbanks, and other factors have contributed to the ability of intermediaries to attract savings. Therefore, intermediaries have been able and willing to lend more money at higher market interest rates (A movement along and a shift in the SS function in Figure II).

Monetary Policy

In addition to a discussion of the quantitative effects of changes in individuals' savings in financial intermediaries upon the

supply of loanable funds, this chapter illustrates the complicated problems which face monetary authorities in their attempt to control the nation's supply of liquidity. Over-all monetary policy is based upon the primary goal of maintaining economic stability. The policy has often been described as a policy of "leaning against the wind." There is a tendency for monetary authorities to restrain the supply of credit when the level of economic activity and the demand for credit are high, and a tendency to encourage the flow of credit when the economy is depressed. In order to affect this policy, the monetary authorities watch numerous monetary and nonmonetary indicators of economic activity. Nonmonetary indicators include such measures as gross national product accounts, industrial production, construction awards, employment, retail sales, et. al. These indicators provide the primary direction to major policy decisions, e. g., whether to affect greater monetary ease or restraint.

The monetary indicators guide the authorities in their efforts to manage the nation's liquidity in accordance with their over-all objectives. Many measurements of liquidity are used by monetary authorities, but the major indexes are: (1) the supply of money, defined as demand deposits plus currency outside banks, (2) the level of bank loans, (3) excess member reserves, (4) net borrowed reserves, and (5) member bank reserves. Both indicators "1" and "2" behave so similarly that only the supply of money will be considered in this analysis. For the purpose of simplicity this analysis will also assume no changes in member borrowings from the Federal Reserve so that indicator "4" may be eliminated. Absolute

changes in net borrowed reserves will be identical with changes in excess reserves, given this assumption.

Decision making in problems of monetary policy as in other matters is essentially a process of selecting the best choice among several alternatives. It is, therefore, assumed that monetary authorities will select either the supply of money, the level of member bank reserves, or the level of member bank excess reserves as the major indicator of liquidity and as the principal guide to the use of monetary tools. This section investigates the adequacy of these traditional indicators of liquidity as guides to the enactment of monetary policy in an economy in which there are several important forms of highly liquid assets.

Before beginning the analysis it is necessary to outline its inherent assumptions. First of all, it is assumed that monetary authorities are following a policy which refrains from easing or tightening liquidity conditions, i.e., a neutral policy. As observed above, it is further assumed that member borrowings from the Federal Reserve remain constant. A very major assumption made is that changes in member reserves are ultimately fully reflected in bank loans and investments. In other words, it is assumed that there is a given "permanent" level of member excess reserves. This assumes persistent monetary "tightness" and both continued willingness and ability of banks to use new reserves. It is realized that full adjustment of the banking system to changes in reserves, given these assumptions, is far from immediate; but the analysis suggests the direction and probable force of the ensuing liquidity changes.

It should also be noted that this analysis uses the conventional definition of money, i.e., demand deposits plus currency outside banks. The traditional definition is admittedly artificial, but as long as this definition is the "working" definition of monetary action, its use is clearly justified.

It is also important to point out that this analysis of the economic effects of changes in the distribution or the size of the stock of personal liquid assets doesn't consider "tertiary" or income effects. The analysis does include the primary or direct effects of changes in public asset preferences or saving habits on the supply of liquidity and possible secondary effects on the supply of liquidity resulting from "corrective" actions by monetary authorities. It is realized that ultimate primary and secondary changes in liquidity may positively or negatively affect the level of current and future income and that changes in income likely would affect the rate of growth of personal liquid assets. These changes, however, have not been considered in this analysis for simplicity and because they exceed the scope of the analysis.

Shifts From Demand to Savings Deposits

Individuals may reduce idle demand deposits or cash holdings, sell investments, or reduce current consumption or investment expenditures in order to add to their savings deposits. This section considers the case in which new savings deposits come from idle demand deposits. The effect of an increase in savings deposits on the supply of loanable funds depends very much upon the possible action taken by monetary authorities.

The ultimate monetary effect of a shift of \$100 between a demand and savings deposit, without compensatory central bank action, is to increase the supply of loanable funds \$75 and to decrease the supply of money \$25. (See Table 14 below.)

TABLE 14

THE EFFECT ON THE SUPPLY OF LOANABLE FUNDS OF A
SHIFT OF \$100 FROM DEMAND TO SAVINGS DEPOSITS
(No Federal Reserve Action)

The Banking System

	<u>Assets</u>	<u>Liabilities</u>
1) Initial shift:	required reserves -\$15	demand deposits -\$100
	excess reserves / 15	savings deposits / 100
	earning assets -	
2) Use of excess reserves:	required reserves / 15	demand deposits / 75
	excess reserves - 15	
	earning assets / 75	
3) Net change:	required reserves 0	demand deposits - 25
	excess reserves 0	savings deposits / 100
	earning assets / 75	
	/ 75	/ 75

Reserve requirements:

demand deposits - 20%
time deposits - 5%

If monetary authorities were following a policy of maintaining constant member reserves, they would take no action in this case. Nevertheless, the economy would be provided with additional credit. This is the situation described in Table 14.

If monetary authorities were following a policy of maintaining a constant supply of money, a shift of \$100 from demand to savings deposits would encourage them to expand member reserves. The policy of stabilization of the money supply, however, would not

effectively control the supply of credit in this case. Bank loans and investments ultimately would increase by \$95 if the Federal Reserve allowed demand deposits to regain their former level. (See Table 15.) The supply of loanable funds available to the public would increase \$100 because the Federal Reserve would ultimately hold \$5 additional earning assets in the form of U. S. Bonds.

A monetary policy of maintaining constant member excess reserves is more difficult to visualize. Excess reserves for the banking system are quite volatile but they must always be present. The central bank, however, has the option of maintaining excess reserves at a level which will either allow banks to expand loans or at a level which will not allow banks to expand loans. In the present case, a shift of funds between demand and savings deposits increases bank excess reserves. It is assumed that the monetary authorities are able to identify the expansion in excess reserves as not caused by some seasonal or sporadic factor. If the monetary authorities act to absorb the excess reserves, their most likely tool would be open market selling operations. For simplicity, it is assumed here that member banks purchase bonds offered by the Federal Reserve.

If all of the excess reserves created by the shift of funds between demand deposits and savings deposits were absorbed by the Federal Reserve, there would be no net change in the total supply of loanable funds. (See Table 16.) However, there would be a transfer of ownership of \$15 in U. S. bonds from the Federal Reserve to the commercial banks. Commercial bank earnings and liquidity would increase, but they would not be in a position to expand the

TABLE 15

THE EFFECT ON THE SUPPLY OF LOANABLE FUNDS OF A SHIFT OF
\$100 FROM DEMAND TO SAVINGS DEPOSITS
(Policy of Maintaining a Constant Quantity of Money)

	The Banking System		The Federal Reserve	
	Assets	Liabilities	Assets	Liabilities
1) Initial shift:	required reserves -\$15 excess reserves / 15	demand deposits -\$100 savings deposits / 100	U. S. / 5 bonds / 5	member / 5 reserves / 5
2) Expansion of reserves:	excess reserves / 5 earning assets - 5			
3) Use of excess reserves:	required reserves / 20 excess reserves - 20 earning assets /100	demand deposits / 100		
4) Net change:	reserves / 5 earning assets / 95	deposits / 100		

Reserve requirements: demand deposits - 20%
 savings deposits - 5%

TABLE 16

THE EFFECT ON THE SUPPLY OF LOANABLE FUNDS OF A SHIFT OF
\$100 BETWEEN DEMAND AND SAVINGS DEPOSITS
(Policy of Maintaining Constant Excess Reserves)

	The Banking System		The Federal Reserve	
	Assets	Liabilities	Assets	Liabilities
1) Initial shift:				
required reserves	-\$15	demand deposits	U. S. bonds	member reserves
excess reserves	✓ 15	savings deposits	✓ 100	-\$15
earning assets	0			
2) Absorption of excess reserves:				
excess reserves	- 15			
earning assets	✓ 15			
Reserve requirements:				
demand deposits	- 20%			
savings deposits	- 5%			

quantity of money. The quantity of money declines a full \$100.¹ The liquidity of commercial banks increases because of the ready salability of U. S. Bonds and because the banks hold a higher portion of U. S. Bonds to loans than originally. The added liquidity of the banks eventually may encourage them to sell some of their investments in order to make additional bank loans. The net effect in this case would be expansionary.

This case differs from the previous two cases in that the supply of loanable funds in the economy does not actually increase although there is an increase in liquidity equal to the expansion in bank earning assets. In the previous two cases changes in the supply of loanable funds available to the public were identical with changes in the earning assets of banks and there were no significant changes in the liquidity structure of banks.

In addition to estimating the quantity of loanable funds expansion which results from deposit transfers, it is useful to estimate the probable maturity offerings of the newly created loanable funds. It is generally assumed that mortgages in a bank's asset portfolio are supported by savings deposits. An expansion in savings deposits would customarily increase the ability and willingness of a bank to make mortgage loans. Banks generally may not hold mortgages in excess of 60 per cent of their time deposit liability. It is also usually assumed that savings deposits require less liquid asset cover than do demand deposits which are subject to greater and

¹This case illustrates the imperfection of the quantity of money as a measurement of the liquidity of the economy.

less predictable withdrawal rates. It is impossible to establish the exact quantitative effect of a shift in funds from demand to savings deposits upon the maturity distribution of bank loans and investments, but one would expect banks to offer proportionately more long-term funds.

For the purposes of this study it is assumed that banks invest 60 per cent of their savings deposits in long-term debt obligations (greater than 5 years maturity) and 20 per cent of demand deposits in long-term debt. The remainder of their earning assets are assumed to be invested in short-term loans and investments. Based upon these assumptions of the asset investment practices of banks, a shift of \$100 from demand to savings deposits, with no compensatory Federal Reserve action, would increase the supply of long-term loanable funds \$55 and the supply of short-term funds \$20. (See Table 17.)

A shift of \$100 from demand to time deposits with a policy of maintaining a constant quantity of money would increase the supply of long-term loanable funds available to the public \$60 and increase the supply of short-term loanable funds \$40. (See Table 18.)

A shift of \$100 from demand to time deposits with a Federal Reserve goal of maintaining constant excess reserves would increase the quantity of long-term loanable funds available to the public by \$40, but decrease the short-term quantity of loanable funds by \$40. (See Table 19.) It is assumed that the Federal Reserve would sell short-term U. S. Bonds to the banks to absorb the excess reserves. This analysis also assumes a time period sufficiently long to allow banks to establish their optimum distribution of asset maturities.

TABLE 17

THE EFFECT ON THE MATURITY DISTRIBUTION OF LOANABLE
FUNDS OF A SHIFT OF \$100 BETWEEN DEMAND
AND SAVINGS DEPOSITS

(No Federal Reserve Action)

The Banking System

	<u>Assets</u>		<u>Liabilities</u>	
1) Initial shift:	loans and		demand deposits	-\$100
	investments	\$ 0	savings deposits	+/ 100
2) Net change: ¹	earning assets		demand deposits	- 25
	long-term	+/ 55	savings deposits	+/ 100
	short-term	+/ 20		
		+/ 75		+/ 75
Long-term investments:	demand deposits	20%		
	savings deposits	60%		

¹See Table 14 for the mechanics of the changes.

TABLE 18

THE EFFECT ON THE MATURITY DISTRIBUTION OF LOANABLE
FUNDS OF A SHIFT OF \$100 BETWEEN DEMAND
AND SAVINGS DEPOSITS

(Policy of Maintaining A Constant Quantity of Money)

<u>Assets</u>		<u>Liabilities</u>
1) Initial shift:	earning assets \$ 0	demand deposits -\$100 savings deposits / 100
2) Net change: ¹	required reserves / 5 earning assets long-term /60 short-term to public /40 to U. S. - 5 /35	savings deposits / 100
Long-term investments:	demand deposits 20%	
	savings deposits 60%	

¹See Table 15 for the mechanics of the change.

TABLE 19

THE EFFECT ON THE MATURITY DISTRIBUTION OF LOANABLE FUNDS OF A SHIFT
OF \$100 BETWEEN DEMAND AND SAVINGS DEPOSITS
(Policy of Maintaining Constant Excess Reserves)

	The Banking System		The Federal Reserve	
	Assets	Liabilities	Assets	Liabilities
1) Initial shift:				
required reserves	-\$15	demand deposits	U. S. bonds (short-term)	member reserves -\$15
excess reserves	✓ 15	savings deposits	✓ 100	
2) Absorption of excess reserves and asset adjustment:				
earning assets				
long-term	✓ 40			
short-term	- 25			
excess reserves (purchased U.S. bonds)	- 15			
Long-term investments:	demand deposits -- 20%			
	savings deposits -- 60%			

It may be seen clearly from the above discussion that the effect of shifts of deposit balances between demand deposits and savings deposits upon the supply of loanable funds is basically a function of compensatory actions taken by the monetary authorities. A shift of money between demand and savings deposits will increase the supply of loanable funds unless monetary authorities reduce the level of member bank reserves. If monetary authorities don't aggressively absorb excess reserves, but rather watch the total level of member bank reserves or the supply of money, a deposit transfer between demand and time deposits may result in a considerable actual or potential increase in loanable funds.

In the above examples it was assumed that new savings deposits came from idle demand deposits. In actual practice, there is a continual net flow of money into savings deposits, much of which undoubtedly represents saving from current income. There is little convincing evidence to suggest that the rate of a saving of current income is very significantly influenced by the rewards paid on savings deposits. The rewards paid on savings deposits, however, do encourage many individuals to "invest" their savings rather than hold them as idle balances. Increased interest rates on savings deposits may even encourage individuals to "invest" previously accumulated idle balances. If one accepts the proposition that the rate of individual saving out of current income is largely independent of the rewards offered on savings deposits, it is not very important for monetary authorities to consider in which income period a given new savings deposit was withdrawn from the income stream. The important point is that the increase in savings deposits potentially increases

the quantity of loanable funds because of the resulting expansion in the excess reserves of banks outlined above.

If it is assumed that new savings deposits are not made at the expense of current consumption or investment, the ensuing increase in loanable funds is potentially inflationary. One must maintain that new savings deposits are at the expense of current consumption or investment if it is argued that increased savings deposits decrease aggregate demand, i.e., are deflationary. Even if this were true, the increase in loanable funds may nearly equal the original decrease in aggregate demand.¹

It is also instructive to consider the effects of shifts from savings deposits to demand deposits upon the supply of loanable funds. The attempt of individuals to reduce their savings deposits results in a shift of bank balances from savings deposits to demand deposits. The supply of money, conventionally defined, increases but it is likely that the supply of actual or potential loanable funds will decrease, depending upon specific Federal Reserve action or inaction. This argument is, of course, just the reverse of the argument outlined above. This means that if, during a period of economic decline, significant numbers of individuals draw down their savings deposit balances, greater reserves must be supplied to the banking system to even maintain the banks' ability to make loans. Of course, individuals may shift from savings deposits to demand deposits because they desire greater idle liquidity; however, it is

¹It is assumed that the money level of investment is strongly linked to the supply of loanable funds. This assumption is probably fairly good in a period of inflation.

very possible that individuals will use funds withdrawn from savings deposits to increase consumption. In the latter case, the public's inclination to reduce bank savings deposits doesn't reduce aggregate demand because the reduction in the lending ability of the banks is more than matched by the increase in consumption demand. Aggregate demand is actually increased.¹ If individuals shift from savings deposits to idle demand deposits, there will be a definite decrease in aggregate demand.²

Shifts of Funds Between Banks and Savings Associations

Individuals may not only shift between demand deposits and savings deposits, but between bank deposits and claims on other financial intermediaries. Of particular interest is the case of a movement of funds between banks and savings and loan associations.

For instance, if an individual shifts funds from a demand deposit to an investment in savings and loan shares, there is no increase or decrease in the quantity of money defined as demand deposits plus currency outside banks.³ The savings and loan association receives a deposit in a commercial bank. It is assumed that the

¹Consumption increases 100 per cent of the deposit transfer, but bank loans would decrease no more than 75 per cent of the transfer, given the assumption that member reserves remain constant.

²The decrease could be up to 75 per cent of the deposit transfer, given the assumptions included in this analysis.

³Again, it is not important to the analysis whether individuals shift "money" recently saved or money saved some time ago. In either case the supply of loanable funds increases. Aggregate demand is depressed only if it is assumed that the rate of saving out of current income is positively influenced by the offer of savings and loan associations.

savings and loan association uses 95 per cent of its new share capital to buy mortgages and long-term government holdings, and retains the remainder as liquidity reserves in commercial banks.¹ There is no increase in the supply of money or in excess reserves of banks, and member bank reserves are unaffected, but the supply of loanable funds would be up 95 per cent of the value of the deposit shift. Monetary authorities would not be successful in regulating the supply of credit if they used the quantity of money, the level of bank reserves, and the level of excess reserves as policy guides.

It is also interesting to compare the relative effects of a shift from demand deposits into either savings deposits or share capital. If it is assumed that the Federal Reserve takes no action affecting member bank reserves, a shift of \$100 from demand deposits to savings deposits would increase loanable funds \$75, but a shift of \$100 from demand deposits to share capital would increase the supply of loanable funds \$95. If the Federal Reserve elects to maintain a constant quantity of demand deposits, a shift of \$100 into savings deposits would increase the supply of loanable funds available to the public \$100, but a shift of \$100 into share capital would increase the supply of loanable funds \$95. If the Federal Reserve were following a policy of absorbing new excess reserves, a shift of

¹On December 31, 1956, member savings and loan associations held an average of only 3.1 per cent of assets in vault cash and as deposits in commercial banks. M. S., FHLBB, . . . Source Book, 1957, pp. 8-11. Savings and loan associations may also elect to increase their deposits with their Federal Home Loan Bank. This transaction, however, doesn't result in a significant leakage of loanable funds because Federal Home Loan Banks lend the bulk of depositors' money to members or purchase Government obligations.

\$100 from demand deposits to savings deposits would not directly increase the supply of loanable funds. With such a monetary policy, share capital growth at the expense of savings deposit growth would expand the potential supply of loanable funds \$95 because there would be no excess reserves generated.

It is also important to point out that share capital is invested in longer term assets than savings deposits. If share capital grows at the expense of savings deposits there will tend to be relatively more mortgage money, and relatively less money available to individual and business short-term borrowers.

It is also possible that individuals may shift actual savings deposits from banks to savings and loan associations. If individuals reduce savings deposits in commercial banks to purchase savings and loan shares, the effect on the banks is to increase their demand deposits and to reduce their savings deposits because they suffer an increase in required reserves, a \$100 shift would result in a \$25 increase in the quantity of money, conventionally defined (See Table 19). The quantity of loanable funds supplied by banks decreases \$75, but it is assumed that savings and loan associations increase their offer of loanable funds \$95. The change in the offer of loanable funds of banks, however, may be modified by subsequent action of the Federal Reserve.

If monetary authorities are following a current policy of maintaining constant member bank reserves, a shift of savings deposits from banks to savings and loan associations would not occasion action by monetary authorities. In this case a shift of \$100 from savings deposits to share capital increases the potential supply of

loanable funds \$20 (See Table 20). The total level of bank deposits declines, yet the economy is relatively more liquid. It should be noted that the earning assets of banks are reduced \$75.

If monetary authorities are following a policy of stabilizing the supply of money, as conventionally defined, commercial banks would suffer even more as a result of the shift of individual balances from savings deposits to share capital. The banks would lose \$95 in earning assets in this case (See Table 21), and there is a slight decrease in the economy's supply of loanable funds. The savings and loan associations may increase loans \$95, but the banks must reduce their loans and investments to the public \$100.¹

If monetary authorities were following a policy of maintaining constant member excess reserves, they would be encouraged to expand member reserves after a shift of savings from savings deposits to share capital. In this case the level of bank deposits would be unchanged, but the banks would hold \$15 less loans and investments and \$15 more reserves on deposit with the Federal Reserve (See Table 22). Banks, however, would hold a lower per cent of their assets in the form of U. S. Government obligations than before the original shift of money. This situation may encourage banks to reduce their loans to the public slightly in order to expand their holdings of U. S. Governments. However, there would be an increase in loanable funds of \$95 because of the increase in loans of savings

¹It is assumed that the Federal Reserve absorbs member reserves by selling bonds to member banks. The banks in this example now hold a higher ratio of U. S. Bonds to other assets than formerly. They may be encouraged eventually to sell these bonds in order to increase loans to the public.

TABLE 20

THE EFFECT ON THE SUPPLY OF LOANABLE FUNDS OF A SHIFT
OF \$100 FROM SAVINGS DEPOSITS TO SHARE CAPITAL
(No Federal Reserve Action)

		Savings and Loan Associations	
		Assets	Liabilities
1) Initial shift:	required reserves $\cancel{\$15}$ excess reserves - 15	mortgages $\cancel{\$95}$ cash $\cancel{\$5}$	share $\cancel{\$100}$ capital
2) Adjustment of reserve position:	required reserves - 15 excess reserves $\cancel{\$15}$ earning assets - 75	savings deposits $\cancel{\$100}$ demand deposits $\cancel{\$100}$ demand deposits - 75	
3) Net change:	earning assets - 75	deposits - 75	
Reserve requirements:		demand deposits 20%	
		savings deposits 5%	

TABLE 21

THE EFFECT ON THE SUPPLY OF LOANABLE FUNDS OF A SHIFT OF
\$100 FROM SAVINGS DEPOSITS TO SHARE CAPITAL
(Policy of Maintaining A Constant Money Supply)

The Banking System				Savings and Loan Associations	
		Assets	Liabilities	Assets	Liabilities
1) Initial shift:		required reserves /\$ 15	savings deposits -\$100	mortgages /\$95	share /\$100
		excess reserves - 15	demand deposits / 100	cash / 5	capital
2) Reserve contraction:		excess reserves - 5			
		earning assets / 5			
3) Deposit contraction:		required reserves - 20	demand deposits - 100		
		excess reserves / 20			
4) Net change:		reserves - 5	savings deposits - 100		
		earning assets - 95			
Required reserves:	demand deposits	20%			
	savings deposits	5%			

The Federal Reserve	
Assets	Liabilities
U. S. bonds - 5	member reserves - 5

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

2. The second part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

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6. The sixth part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

7. The seventh part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

8. The eighth part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

9. The ninth part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

TABLE 22

THE EFFECT ON THE SUPPLY OF LOANABLE FUNDS OF A SHIFT OF
\$100 FROM SAVINGS DEPOSITS TO SHARE CAPITAL
(Policy of Maintaining Constant Excess Reserves)

The Banking System				Savings and Loan Associations	
		Assets	Liabilities	Assets	Liabilities
1) Initial shift:					
	required reserves	/\$15	savings deposits	mortgages	share
	excess reserves	- 15	demand deposits	cash	capital
				/\$95	/\$100
2) Reserve adjustment:					
	excess reserves	/\$15	savings deposits	The Federal Reserve	
	earning assets	- 15	demand deposits	Assets	Liabilities
				U. S. bonds	member reserves
				/\$15	/\$15
Required reserves:	demand deposits	20%			
	savings deposits	5%			

and loan associations.

The three cases discussed above indicate that the monetary effects of shifts of funds between savings deposits and share capital clearly depend upon the action taken by monetary authorities. Without any compensatory action a shift of savings deposits to share capital may be expected to increase the supply of loanable funds 20 per cent of the transfer. Other possible monetary action could increase this figure to 95 per cent or even reduce loanable funds available to the public.

Other Types of Savings

The type of analysis presented in the previous section may be applied to other forms of savings. All that is required is that the lending practices of the savings institutions be known. For instance, if one assumes no compensatory action of monetary authorities, a shift of \$100 from demand deposits to credit union shares would likely increase the supply of loanable funds about \$95. Credit unions maintain about 5 per cent of their assets in cash.

It should also be emphasized that shifts of funds between financial institutions may well result in qualitative changes in the supply of loanable funds. There may well be traditional or legally enforced differences in the investment policies of competitive financial institutions. For instance, savings and loan associations lend mostly in the long-term mortgage market. Credit unions make mainly short-term loans to individuals. Shifts of funds into or out of either of these institutions would likely affect the quantity of

loanable funds available to given borrower classes.¹ There will tend to be the quantitative effect of rationing of funds to various borrowing groups, if one type of financial institution grows at the expense of a competitor. For example, to the extent that savings and loan associations attract funds away from actual or potential credit union investors, there is an expansion in the availability of mortgage money and a contraction in the availability of funds for personal loans. It should also be noted that shifts in funds between financial institutions may well affect the average maturity of debt offerings and, hence, alter the structure of interest rates.

One should also consider the comparative effects of public efforts to move from nonbank institutional investments into bank deposits. The result likely would be a reduction in the quantity of loanable funds. Public attempts to shift from savings deposits into demand deposits would affect the potential supply of loanable funds by increasing reserve pressure on banks. It should be noted that a public attempt to convert share capital to demand deposits would tend to reduce the quantity of loanable funds more than public attempts to convert savings deposits into demand deposits.

The Problems of Measurement and Control

The above analysis has stressed changes in the supply of loanable funds. This, of course, is a flow concept, but increases in loans add to the national stock of debt obligations outstanding. Virtually all sound debt obligations may be liquidated by holders at

¹See Gurley and Shaw, "Financial Aspects" American Economic Review, p. 332.

a market price. In the case of liquid financial savings, these obligations may be liquidated easily with little or no capital loss. The expansions of loanable funds described in this chapter, therefore, must be looked upon as potential expansions in the liquidity of the economy.

This chapter has not dealt with a case in which the monetary authorities gage their actions upon measurements of overall liquidity or potential liquidity. Monetary policy in the past has not been directly guided by broad liquidity measurements. Monetary authorities, of course, are fully aware of the expansion of nonbank institutions and they certainly closely observe current trends in general economic activity which may be related to the lending activities of nonbanks. However, the actual indexes of credit tightness used by monetary authorities in liquidity management generally measure only the factors relating to bank deposits.

Many economists suggest that indexes of credit tightness should reflect changes in near monies as well as money, conventionally defined. More traditional observers argue that nonbank transactions are all reflected in the velocity of money. The important point, however, is to understand the forces that determine the supply and demand of credit rather than measure the relative speed with which money transactions take place.

In a sense the growth of nonbank financial intermediaries represents another level in the pyramid of liquidity in our economy. The apex of the pyramid is gold which supports currency and member bank reserves. The next level is money or demand deposits plus currency, the volume of which, of course, is a function of the size of

member reserves. One may also think of the public's holding of investments in nonbank financial intermediaries as a third level in the liquidity pyramid because bank deposits serve as the liquidity reserves of nonbanks. At this point, however, some important qualifications must be made.

The reserves of member banks on deposit with the Federal Reserve are legal reserves which effectively limit the growth of commercial member banks. The reserves of nonbank financial intermediaries held in commercial banks are liquidity reserves. These reserves do not presently directly limit the rate of growth of nonbanks, nor is it conceivable that they would ever effectively control their growth.¹ As long as individuals or businesses are in possession of money, they are free to invest their money in nonbanks. Of course, if all money were held by nonbanks the supply of money would effectively limit their size, but it is inconceivable that such a condition could exist.

Changes in the level of commercial bank demand deposits, or even changes in the rate of growth of the money supply, however, may tend to indirectly limit the rate of growth of financial intermediaries. If a change in the money supply results in a decline in money income, it is very possible that the growth of nonbanks will be adversely affected. In addition, a condition of general money tightness could cause savers in nonbanks to draw down their savings balances for spending needs. For instance, business or individual

¹There would be some tendency for required nonearning legal reserves to limit the profitability of financial intermediaries and thereby limit their ability to attract savers. This point is discussed on p. 83.

holders of share capital in savings and loan associations may elect to deplete their liquidity reserves to meet cash requirements rather than borrow at very high rates of interest. However, it is difficult to suggest the significance of this possibility, because tight money also may stimulate the flow of savings into financial intermediaries. Tight money increases the yield on the assets of intermediaries and, therefore, encourages aggressive competition for savings. Higher interest rewards are likely to attract greater savings into financial intermediaries. Consequently, it is difficult to conclude from these arguments that there is a clear relation between changes in the money supply and changes in the rate of growth of nonbanks.

There is, however, another argument that may be advanced to indicate that the size of nonbanks may be limited by the quantity of money. It has been suggested that there may be some upper limit on the velocity of money which may prevent the size of nonbanks from growing indefinitely relative to the size of banks.¹ This argument is weak on three counts. First, history has failed to demonstrate the existence of a finite velocity; and secondly, the volume of commercial bank debits attributable to the operations of nonbanks is an insignificant portion of total debits.² The assets of nonbanks

¹Donald Shelby, "Some Implications of the Growth of Financial Intermediaries," Journal of Finance, XIII, (February, 1958), p. 529.

²On December 31, 1957, total savings in mutual savings banks, savings and loan associations, postal savings, credit unions, life insurance companies, and private pension funds were \$194 billion. U. S., FHLBB, . . . Source Book 1957, p. 13. It is very unlikely that total assets in these institutions turn over more frequently than once every 3 years. In 1957 such a rate of turnover would have accounted for less than 3 per cent of total demand deposit debits of roughly \$2,500 billion.

would have to multiply several times before their operations significantly increased the velocity of money. Finally, it is difficult to foresee that a substantial increase in velocity would limit the growth of intermediaries.

One may conclude that a pyramid of liquidity exists which includes the nonbank financial intermediaries, but the ultimate size of the nonbank level of the pyramid is unlikely to be limited by the size of banks or the legal reserves of banks. This conclusion indicates the dilemma faced by the Federal Reserve in the conduct of its monetary policy. In order to achieve a given degree of liquidity, the Federal Reserve must enable member banks to expand or contract to offset the operations of nonbanks in addition to the expansion or contraction required to effect indicated quantitative liquidity changes.

This chapter, indeed, illustrates some of the problems which the growth of savings and shifts between types of savings create for monetary authorities. It is apparent that the conventional indexes of credit tightness were not always useful in measuring changing credit conditions. This problem might be expected to be particularly bothersome in a period of tight money. Interest rates on savings are likely to rise in such a period. Individuals with idle cash balances are encouraged to "invest" their savings. There may also be a tendency for high interest rewards to encourage some individuals to reduce their current consumption in order to invest more money. The invested funds which are attracted from idle balances increase the potential supply of loanable funds and add to inflationary conditions.

The intent of this chapter is not to suggest that monetary authorities should vigorously control the rate and direction of savings flows, but to emphasize that measurements of personal liquid savings trends are important in understanding national credit conditions. However, bankers may complain with some substance that they are required to bear the entire burden of credit restraint to control inflations which are partially stimulated by the expansion of nonbanks.

A policy recommendation that is frequently advanced is that all financial intermediaries should be controlled for really effective monetary management. It is suggested that the Government perhaps should be provided with a central agency that could coordinate the regulation of financial institutions. For instance, if general monetary restraint is desired, it probably would be useful to insure that Federal Home Loan Banks aren't lending to member savings and loan associations for mortgage expansion at a time when the Federal Reserve is earnestly attempting to reduce the reserves of its members.¹

Opponents of government control of financial intermediaries argue that attempts to restrain their loan expansion may inhibit their willingness or ability to attract savers. However, there is very little convincing evidence that interest rewards restrain consumption thereby adding to total savings; but there is evidence to

¹A counter argument is that home owners are frequently unable to obtain "suitable" mortgage loans in a period of tight money. The expansion of savings and loan associations may insure that home buyers will be able to find loans on "favorable" terms. This argument is based on the value judgment that home buying should not be severely limited by unfavorable mortgage market conditions in a period of tight money.

suggest that the interest rewards of financial intermediaries attract current and past cash accumulations into investment channels. The effect of financial intermediaries is to add to the supply of loanable funds and to stimulate aggregate demand. Containment of the growth of intermediaries generally would contribute to an overall policy of inflation control.

It is really difficult to determine what the precise role of a central monetary authority should be and what actions it should take. It would be perhaps desirable if banks and nonbanks were required to become relatively liquid and perhaps to accumulate large loss reserves in a period of very rapid economic expansion. The effect of this partially would be to restrain loan expansion and to provide a cushion against a possible severe reversal in economic conditions.

Note to Chapter VIII: Banks Profits and the Role of NonBanks

There has been considerable interest in the impact of the growth of nonbanks upon the earnings of banks. Above it was pointed out that shifts of savings from bank savings deposits to savings and loan associations may reduce the earning assets of banks. Bank profits undoubtedly would decline proportionately at least as much as any decline in the earning assets of banks.

It is further pointed out by Gurley and Shaw that banks indirectly may lose deposits as a result of the growth of nonbank financial intermediaries.¹ The argument is that such institutions supply

¹John G. Gurley and E. S. Shaw, "Financial Intermediaries and the Saving-Investment Process," Journal of Finance, XI (May, 1956), p. 261.

the liquidity needs of an expanding economy so that bank reserves need not be expanded so rapidly as would otherwise be necessary to provide "funds" for economic growth.

It may also be argued that nonbank financial institutions increase the burden that banks must bear in a period of monetary stringency. If nonbank financial institutions are permitted to extend their lending operations in a period when the central bank is attempting to reduce the supply of credit, it is possible that banks will experience a greater reduction in their reserves and, hence, in their assets and earnings than would be the case without "competitors."

Gurley and Shaw also effectively explain that nonbank financial institutions have some tendency to reduce bank earnings on loans and investments by supplying a larger volume of loanable funds than would exist without nonbanks. The consequence of this would be expected to be lower interest rates on loans and investments and, hence, lower earnings for banks.¹

It definitely appears that banks would operate more profitably in a world without competitors. However, it is difficult to conclude much from this observation. It certainly explains the attitude of many bankers toward their competitors. Nevertheless, savers have undoubtedly benefited from the competition of financial institutions for savings. Borrowers also are benefited when they have alter-

¹Gurley and Shaw, "Financial Aspects . . .," American Economic Review, p. 532.

native sources of loans. However, many would argue that it is in the public interest to insure that laws do not grant special competitive advantages to specific types of savings institutions. Current tax laws, for example, should be investigated to determine if the special favors they grant to select financial institutions are in the public interest.

CHAPTER IX

SUMMARY

This study has emphasized the dynamic competitive struggle between savings and loan associations and commercial banks in the Seventh Federal Reserve District. It was initially established that share capital and savings deposits are close substitutes as savings media for individuals. Chapters II and III described stocks and flows of share capital and savings deposits in some detail. It was quite apparent that stocks of insured savings and flows into and out of insured savings are far from uniform in the District metropolitan areas and within Chicago city sectors and suburbs. In some areas banks appear to be very successful in attracting savings, while in other areas, savings and loan associations account for all or nearly all of an area's new insured saving. These obvious interarea differences invite inquiry into the factors which influence the level of insured savings within the District.

The attempt to explain per capita stocks of insured savings in District metropolitan areas was not very rewarding. The results obtained within the Chicago area were somewhat better, but they were still not impressive. One must conclude that, on the basis of the analyses performed in this study, per capita stocks of insured savings do not closely relate to interest rewards or to the availability of insured savings institutions. The observed differences in area stocks

of insured savings must be explained by other factors such as area savings habits, stocks of other savings not covered by this study, or interarea differences in total wealth.

Savings deposit outflows in District metropolitan areas and in Chicago areas were found to relate very impressively with rates of savings deposit inflow. In some areas savings deposit accounts apparently are used somewhat like "money". In these areas the inflow and outflow turnover rates of savings deposits are high. It was noted that small average balances contributed to this condition. Savings deposit withdrawals showed little relation to rates of interest paid on savings deposits.

In District metropolitan areas and in Chicago areas the absolute rate of savings deposit inflow did not relate to interest payments, but the rate of savings deposit inflow tended to increase in areas where interest rates paid on savings deposits improved. It was even more interesting to note that savings deposit balances increased most rapidly where rates of interest on savings deposits were high, and savings deposits were expanding at an increasing rate where rates of interest paid on savings deposits were increasing. The conclusion is that banks are attracting more savings where savers are well rewarded. The observed relationships of savings deposit inflows and outflows to interest rates were relatively weak, but total savings deposit balances appear to be fairly responsive to interest rates paid. It was also noted that savings deposits were increasing most rapidly in areas where there were relatively many

savings accounts. Banks with the greatest number of savers appear to be attracting the most new savings.

The rate of increase in share capital, however, was not related to any of many variables tested, with the exception of metropolitan area savings deposit withdrawals. There is some evidence that savings and loan associations may receive some savings shifted directly out of bank savings deposits. The evidence, however, is far from conclusive. Neither share capital inflows nor withdrawals were very successfully explained with interest rates paid to savers. However, there is some evidence which indicates that the promotion expenditures of savings and loan associations may influence the growth of share capital. It was also interesting to observe that rates of share capital inflow directly related to rates of share capital outflow. Apparently there are significant interarea differences in the turnover of both share capital and savings deposit accounts.

Various measures of the current competitive position of savings and loan associations in metropolitan areas were related to the interest rates paid on savings deposits and share capital. It appeared that banks, in areas where savings deposits earned low rates of interest, were not very successful competitors of savings and loan associations; but this relationship was not useful in the analyses of the competition for savings in Chicago city sectors and suburbs. It was observed, however, that savings and loan associations are growing rapidly in all sections of the Chicago metropolitan area. This condition presumably was responsible for much of the

4. The fourth part of the document discusses the implications of the research findings. It suggests that the results can be used to inform policy decisions, guide future research, and improve organizational practices. The text encourages a collaborative approach, where the findings are shared with relevant stakeholders and used to drive positive change.

5. The final part of the document provides a summary of the key points and offers some concluding thoughts. It reiterates the importance of thoroughness and honesty in the research process and expresses hope that the findings will be useful and impactful. The text ends with a statement about the ongoing nature of research and the need for continued learning and improvement.

difficulty encountered in the attempted explanation of differences in the competitive position of savings and loan associations within the Chicago area.

A particularly interesting conclusion based on the statistical analysis of this study was that the level of area insured savings tends to relate to the weighted average interest rate paid on insured savings. This relationship indicates that savings and loan associations and commercial banks not only influence their position with each other, but they may gain a greater share of total financial savings by increasing interest payments.

It was also observed that interest payments to savers are likely to be highest where there are the greatest number of competing insured savings institutions. The interest rates paid by savings and loan associations appeared to be particularly responsive to the number of "buyers in the market area". The fact that it is relatively difficult to establish new savings and loan offices may account for this condition.

Of the variables tested, interest rates paid on savings deposits and share capital were most useful in explaining observed flows of insured savings in metropolitan areas and in Chicago areas. No convincing evidence has been presented in this study or elsewhere to indicate that the level of saving out of current income is significantly influenced by interest rewards, but there is a clear tendency for savers to invest their funds where they will earn the best possible return consistent with their liquidity and safety desires. This relationship,

however, is far from perfect as this study clearly indicates. Many other forces in addition to interest rates influence the allocation of savings. Certainly there is a strong secular relationship between saving in insured savings institutions and the level of personal income, but the cyclical stability of this relationship is not impressive. In addition, it does not appear that the allocation of total saving is responsive to changes in the level of personal income. In the postwar period share capital has increased considerably more rapidly than savings deposits each year. Postal savings deposits have declined steadily and sales of U. S. Savings Bonds have been erratic. The inclusion of data on personal income in metropolitan areas clearly would have expanded the scope and usefulness of this study, but it is unlikely that the observations regarding the role of interest rates in influencing the allocation of savings would have been substantially modified.

Chapter V dealt briefly with certificates of deposit, postal savings, and uninsured share capital. There was some very limited evidence to suggest that banks which pay low interest rates on regular savings deposits tend to be successful in selling certificates of deposit, but there are many important exceptions to this relation. Savers appear to be most attracted to postal savings depositories in areas where bank services are relatively poor, but uninsured savings and loan associations rely on high dividend rates as their weapon to compete with insured savings and loan associations. Nevertheless, uninsured associations are rapidly applying for FSLIC coverage. This trend appeared to be recognition of the fact that uninsured savings

and loan associations have no actual competitive edge over insured associations. Investment in insured savings and loan associations and in postal savings appears to be of declining importance in the United States. Certificates of deposit appear to be growing as an investment media of individuals, but no great increase in their popularity is forecasted because they do not appeal to a wide group of savers.

Credit unions were found to be very competitive financial institutions within the District. Much of the success of credit unions undoubtedly is due to the high interest rates that many credit unions pay on savings. However, this study did indicate that credit unions tend to be most popular where there are fewer competing savings institutions and they tend to grow as their potential membership grows.

Credit union shareholdings appeared to be risky investments compared with alternative investment opportunities. Credit unions have not sought government sponsored insurance coverage to protect their savers from default risk, nor have they developed adequate private plans. Although they have comparatively large loss reserves and a good record of survival, credit unions appear to be particularly vulnerable to severe economic depressions. This is because their creditors and debtors are generally employed by the same firm and credit unions are without secure lines of credit to meet contingent liquidity requirements.

Nevertheless, it appears that credit unions will continue to grow rapidly. Their high earnings, convenience, and appeal as a social

service make them desirable investments for many savers. The relative ease with which credit unions may be chartered and the growth in the number of wage and salary workers insure greater expansion in their potential market.

Chapter VII was a brief discussion of U. S. Savings Bonds. It was observed that the inflow and outflow turnover rates of U. S. Savings Bonds are considerably lower than share capital and savings deposit turnover. The severe yield penalty on U. S. Savings Bonds redeemed in the first several years following purchase was cited as a possible explanation of this condition. Per capita sales of U. S. Savings Bonds were not found to relate to interest rates paid on savings in banks and savings and loan associations or to the availability of insured savings offices. It was suggested that convenience of purchase and some unique features of U. S. Savings Bonds probably account for their popularity.

A large portion of this study was devoted to a detailed description of the factors which contribute to the competitive strength of savings and loan associations. Legal restrictions were found to limit the activities of both savings and loan associations and banks. Banks are limited in the degree of liquidity and the interest rewards they may offer to various classes of savers, but they enjoy considerable freedom of investment opportunity. In contrast, savings and loan associations have few restrictions upon the type of savers they may attract, but they have strict limitations on the types of investment they may make.

A sizable portion of Chapter IV was devoted to an investigation of the tax status of savings and loan associations. Savings and loan associations have a clear tax advantage over banks because they may make tax-free additions to reserves. The removal of their liberal tax treatment might cause a short run increase in the dividend rate of many savings and loan associations, but reserve requirements would eventually force most rapidly growing associations to reduce their dividend rates somewhat. It was concluded, however, that the bankers would not reap major benefits from a change in the tax status of savings and loan associations. If the rate of growth of savings and loan associations were reduced by a loss of their tax status, they would be able to reduce their rate of additions to reserves and increase their dividend payments.

Freedom from the requirement of maintaining legal nonearning reserves was cited as another significant competitive advantage of savings and loan associations. It was estimated that the net earnings of savings and loan associations would be reduced about 6 percent if they were required to maintain nonearning reserves equal to 5 percent of their share capital.

The paternalistic regulation of savings and loan associations by the Federal Home Loan Bank Board was found to provide savings and loan associations with many competitive advantages. They are able to invest most of their assets in illiquid high yielding mortgages and maintain long term U. S. Governments as a major portion of their liquidity reserves. Furthermore, savings and loan associations have considerable freedom in the type of mortgage loans they may make. Federal

Home Loan Banks remove much of the risk of the illiquid asset structures of member associations by supplying them with very liberal lines of credit. In addition, Federal Home Loan Banks lend long-term funds to members for the purpose of mortgage expansion and provide members with a convenient deposit service. The full potential of both of these services has not been approached.

It appears that savings and loan associations enjoy a multitude of competitive advantages with no single factor explaining their basic success. However, most of the important competitive advantages of savings and loan associations exist because of differences in government restrictions or laws affecting banks and savings and loan associations. Many of these advantages were established during the 1930's to stimulate the flow of money into home financings. Their tax advantage and freedom from payments of dividends to stock holders are advantages inherent under current laws of mutual organization. Because very similar government insurance corporations, and probably ultimately the Treasury, bear the risk of default of banks and savings and loan associations, and because it is clearly in the public interest to maintain sound financial institutions, bankers may make a good argument that banks and savings and loan associations should be subject to more comparable restrictions on their activities than is the situation today.

This study also outlined the effects of shifts of savings between savings media and differential rates of growth of savings intermediaries upon the liquidity of the economy. It was observed that a shift of funds from demand deposits to savings deposits would increase

the supply of loanable funds in the absence of compensatory action by monetary authorities. Aggregate demand may be reduced by the growth of savings deposits, or it may be increased by a reduction in savings deposits.

The analysis presented in Chapter VIII made it clear that conventional measures of the liquidity of the banking system often do not clearly indicate changes in the availability of credit in the economy. For instance, a shift of funds from demand deposits to share capital, without compensatory Federal Reserve action, leaves the quantity of money and the reserve position of banks unchanged; but the supply of loanable funds increases by 95 percent of the funds transfer. Without any change in the public's willingness to save, a shift of funds between savings deposits and share capital increases the supply of loanable funds by 20 per cent of the funds transfer. If share capital grows at the expense of savings deposits, the economy will be provided with additional liquidity. There is also a potential danger that in a period of economic uncertainty, savers may elect to shift their savings from nonbanks to banks. The effect could be a substantial reduction in the supply of loanable funds which would not be reflected in the condition of bank reserves or the money supply.

The point was made that it is also important to consider the effects of increased liquid saving upon the supply of long-term and short-term loanable funds. Because of legally prescribed and customary lending practices of savings institutions, the maturity distribution of loanable funds and the supply of funds available to

specific classes of borrowers depends upon which types of savings institutions are growing.

The statistical portion of this study indicated that there is a possibility of shifts of savings stocks between savings institutions and that nonbanks clearly are of growing importance in our economy. The analysis of factors affecting the nation's supply of loanable funds cast considerable doubt on the ability of conventional indexes of liquidity to describe actual liquidity changes in the economy and to serve as dependable policy guides. This problem may be expected to grow in seriousness as "money" becomes a steadily decreasing share of the nation's stock of liquidity.

This study has not attempted to project trends in District saving, however, it appears that banks will continue to face stiff competition as long as their competitors enjoy their present advantages. The increased importance of nonbanks must be recognized by monetary authorities in their attempt to regulate the nation's liquidity.

APPENDIX A

THE INTER-RELATION OF SAVINGS DEPOSIT AND DEMAND DEPOSIT ACTIVITY

Savings deposits have been growing steadily in most District centers over the time period covered by this study. It is frequently alleged that some of the growth in savings deposits is reflected in reduced demand deposits. This hypothesis may well be valid, but it appears to be impossible to establish statistically. Personal demand deposits are a relatively small fraction of total demand deposits, the only regularly reported figure.¹ During 1957, a period of rising interest rates paid on savings deposits, demand deposits decreased, but savings deposits increased in many District areas. It is impossible to determine if individuals reduced demand deposits, or if other demand deposits decreased.

A statistically positive approach to the problem perhaps would be to study demand deposits of individuals with and without savings deposits to determine if there is a tendency for individuals without savings deposits to maintain higher demand deposit balances. This approach would not demonstrate individual shifts of funds between demand deposits and savings deposits, but it would perhaps

¹In the Chicago Federal Reserve District individuals' demand deposits (including deposits of farmers) totaled 33% of total demand deposits. "Ownership of Demand Deposits," Federal Reserve Bulletin, XLIII, (May, 1957), p. 513.

indicate if the behavior of the two types of deposits is related. Ideally a study of this nature should involve direct analysis of accounts of selected persons because it would be possible for an individual to maintain a savings account in one bank and a demand deposit in another bank. This problem could be largely avoided by selecting a town with only one principal bank, and analyzing the behavior of its accounts.

The Federal Reserve Bank of Chicago collected sample data on the demand deposits of the major bank in Kankakee, Illinois. Two hundred accounts were classified according to ownership and observed over a three-year period. In this study there were 94 regular personal checking accounts belonging to individuals not engaged in farming or some other form of entrepreneurial business. Of this number, 12 individuals maintained savings deposits in addition to their regular personal checking accounts.

Monthly averages of the average balance of these accounts were estimated over a period of 36 months. The average balance of the 12 accounts of depositors with savings deposits was \$1,550 over the 36 months studied. The average balance of other regular personal checking accounts of individuals without savings deposits was \$2,228. It should also be noted that in each of the 36 months studied, the average level of individual demand deposits of depositors with savings deposits was less than the average level of individual depositors without savings deposits.

Weighted average turnovers of demand deposits of depositors with and without savings deposits may also be compared. These turnovers are computed by dividing average debits per month for each group by the average level of demand deposits for the group of depositors during the month, and then taking the average of these values over the 36 months of the study. It was found that the average monthly turnover of demand deposits of depositors with savings deposits was .526 compared with an average monthly turnover of .225 for depositors without savings deposits. Deposits of depositors with savings deposits turned over more rapidly than deposits of depositors without savings deposits in 30 of the 36 months studied.

One possible explanation of the above observations is that demand depositors with savings deposits tend to maintain only "transactions" balances in their demand deposits, hence the lower average balances and more rapid turnover. Demand deposits not needed for transactions may well be shifted into savings accounts of individuals who maintain savings accounts. Perhaps demand depositors without savings deposits tend to retain all or most of their liquid asset requirements in demand deposits.

The evidence for this study could hardly be judged conclusive due to the very limited sample size, and the fact that alternative explanations for the observed behavior exist. If this study were a good estimate of banking behavior of individuals, there would be reasonable grounds for believing that the existence of savings deposits tends to reduce the level of demand deposits. If this were true then it might be instructive to observe the volume of new savings accounts

as a possible determinant of the volume of individuals' demand deposits.

APPENDIX B

SOURCES OF DATA

The bulk of the data contained in this study is based upon unpublished materials of the Federal Reserve Bank of Chicago and the Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis. Unless otherwise indicated, all banking data were received from the Federal Reserve Bank of Chicago. The figures on savings deposits are based upon a permanent monthly survey of the inflow, outflow, and total balances of savings deposits in member and nonmember banks in metropolitan areas of the Federal Reserve District of Chicago. In most cases the survey includes banks accounting for at least 90 per cent of the savings deposits in a given area. In areas where the savings deposit survey excludes one or more banks, the reported figure has been inflated to reflect an estimate of activity in the nonreporting banks. The surveyed banks report only passbook savings on a monthly basis. Other time deposit items such as certificates of deposit, Christmas clubs, savings clubs, et.al., are excluded. Data on certificates of deposit have been taken from special call reports of member banks.

The monthly savings deposit series used in this study is the only series available on savings deposit activity in metropolitan areas. It is also the only monthly series on savings deposits that includes

both member and nonmember banks. In addition, this series is the only continuous series on the inflow and outflow of savings deposits.

Data on member savings and loan associations are mainly based on member reports submitted to the Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis. Data on member savings and loan associations in Iowa, Illinois, and Wisconsin are based on annual reports. These data include the share capital and dividends paid by members, but do not indicate the annual rates of share capital deposits and withdrawals. These data are available from December 1954 to date.

Data on member savings and loan associations in Michigan and Indiana are based on monthly reports submitted to the Federal Home Loan Bank of Indianapolis. These reports include rates of share capital inflow and outflow, share capital balances, and rates of interest paid on share capital.

Data on uninsured nonmember savings and loan associations are based upon publications of state agencies. These agency publications are listed in Appendix D, Table 26. Uninsured share capital is of major importance in only two District metropolitan areas.

Monthly U. S. Savings Bond sales data are available at the Federal Reserve Bank of Chicago. The sales data are collected by the Bank in performing its duties as the Treasury agent for sales of U. S. Savings Bonds. The data are available on a county basis only. No attempt was made to adjust U. S. Savings Bond sales to correspond geographically with other series available on savings in Federal Reserve metropolitan areas. The resulting error is slight, particularly in

consideration of the accuracy of the data on U. S. Savings Bond sales. There are no data available on U. S. Savings Bond redemptions by cities or counties. There are also no estimates of U. S. Savings Bonds outstanding in a given city or county.

Data on Federal Credit Unions are based upon annual reports submitted to the Bureau of Federal Credit Unions and made available to the Federal Reserve Bank of Chicago. Data are incomplete on State Credit Unions in Iowa and Illinois. Specific data sources are listed in Appendix D, Table 26. Unfortunately, there are no adequate data on the monthly activity of either Federal or State Credit Unions. It is also not possible to obtain any data on inflows and outflows of credit union savings.

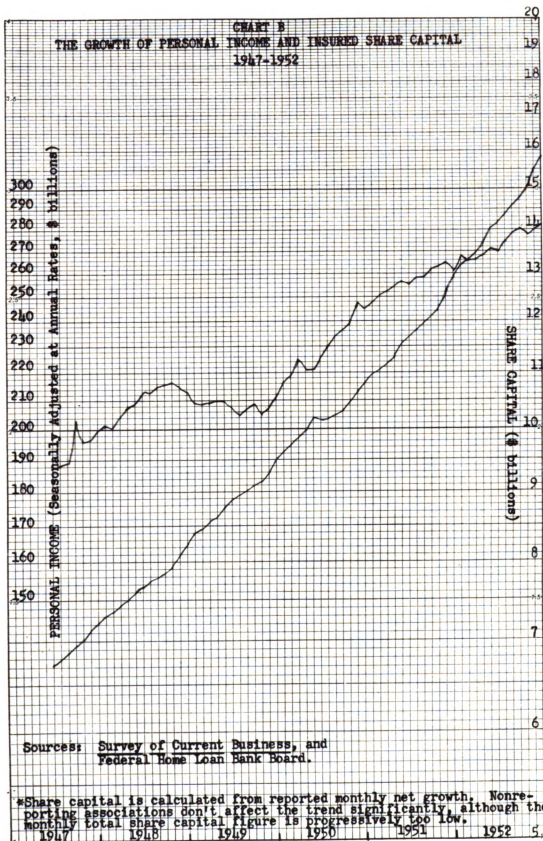
The population estimates used in this study are based on Sales Management projections of populations in U. S. Census metropolitan areas. They are the only available population projections for all the areas studied. The population figures published in Sales Management have been adjusted to compensate for geographic differences in U. S. Census and Federal Reserve metropolitan areas. This was accomplished by computing a correction factor based upon a comparison of the populations in Federal Reserve and U. S. Census metropolitan areas in 1950.

Other specific data sources are indicated in footnotes in the text.

APPENDIX C

ILLUSTRATIONS

CHART B
THE GROWTH OF PERSONAL INCOME AND INSURED SHARE CAPITAL
1947-1952



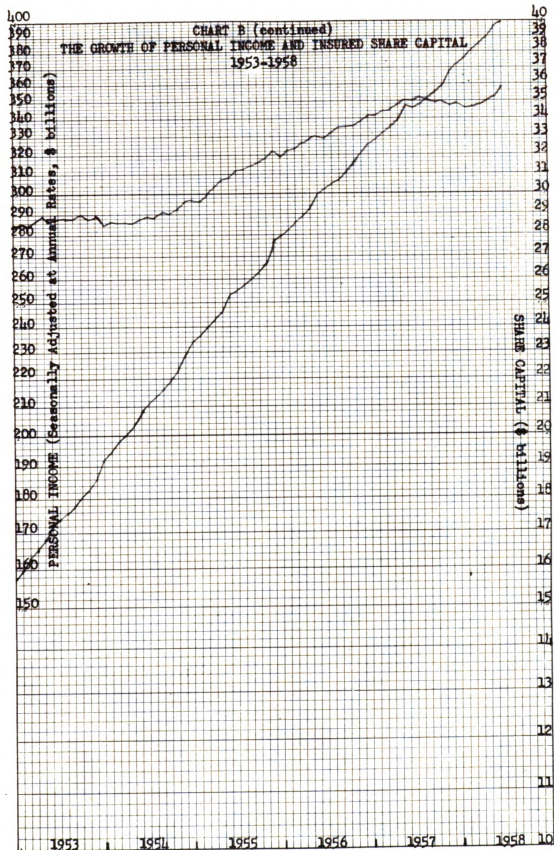
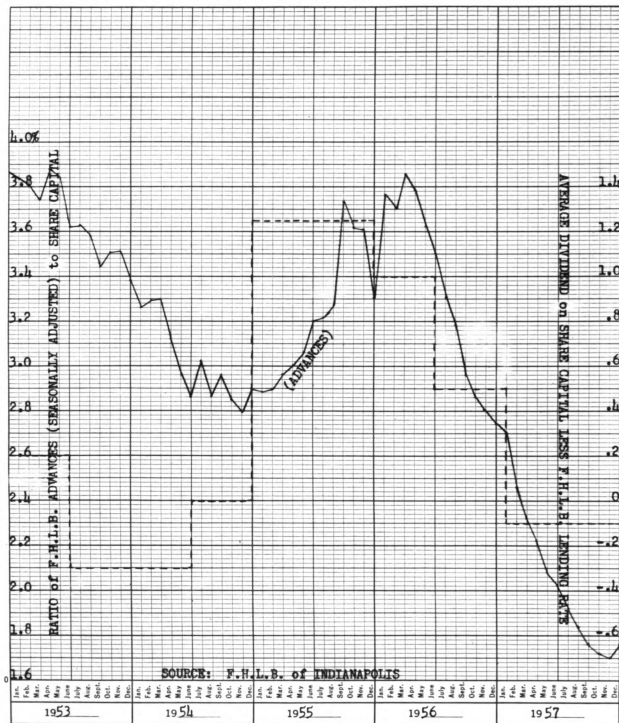


CHART D
THE RELATION OF F.H.L.B. OF INDIANAPOLIS ADVANCES
AND THE RELATIVE COST OF MEMBER BORROWING



APPENDIX D

TABLES

TABLE 23
SEASONAL INDEXES OF FHLB ADVANCES

January	1.04
February	.97
March	.91
April	.90
May	.91
June	.94
July	.94
August	.98
September	1.01
October	1.05
November	1.11
December	1.24

Source: Computed from ratios of advances of the Federal Home Loan Bank of Indianapolis to member share capital.

TABLE 24

SEASONAL INDEXES OF MEMBER DEPOSITS IN
THE FEDERAL HOME LOAN BANK OF INDIANAPOLIS
(Ratios of deposits to member share capital)

January.....	1.02
February.....	1.03
March.....	1.05
April.....	1.06
May.....	1.08
June.....	1.14
July.....	1.04
August.....	.97
September.....	.88
October.....	.88
November.....	.88
December.....	.98

Source: Federal Home Loan Bank of Indianapolis.

TABLE 25

THE AVERAGE SIZE AND NUMBER OF SAVINGS DEPOSIT ACCOUNTS IN
METROPOLITAN AREAS

(January 31, 1957)

Metropolitan area	(1) Average Savings Deposit Account Size	(2) Number of Savings Deposit Accounts per 1,000 Population
Champaign-Urbana	\$ 581	125
Decatur	536	176
Peoria	817	303
Rockford	986	377
Springfield	900	322
Quad Cities	982	394
Green Bay	1,021	393
Madison	669	266
Racine	805	497
Milwaukee	917	415
Fort Wayne	939	524
South Bend	950	462
Indianapolis	957	313
Terre Haute	1,088	325
Detroit	1,027	416
Kalamazoo	595	386
Cedar Rapids	870	396
Des Moines	632	335
Dubuque	1,079	404
Sioux City	915	281
Waterloo	418	286
Chicago	1,195	399
a	1,058	379
a	680	425
a	891	404
a	951	481
a	867	199
a	975	327
a	850	327
a	822	304
a	809	409
a	1,022	447

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago.

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TABLE 26

PER CAPITA STOCKS OF SAVINGS IN DISTRICT METROPOLITAN AREAS
(December 31, 1956)^{a/}

Metropolitan Area	(1) Savings Deposits	(2) Insured Savings and Loan Shares	(3) Total Insured Savings (Columns) 1 + 2	(4) Credit Union Shares ^{b/}	(5) Postal Savings Deposits	(6) Certs. of Deposit (Member Bank only)	(7) Uninsured Savings and Loan Shares	(8) Total Savings (Sum of Columns 3 - 7)
Champaign-Urbana	\$ 126	\$ 275	\$ 401	\$ 0 c/	\$ 22	\$ 0	\$ 43	\$ 466
Decatur	107	140	247	4 c/	45	0	2	298
Peoria	286	575	861	2 c/	15	4	19	901
Rockford	363	074	437	3 c/	72	1	43	556
Springfield	361	340	701	0 c/	50	5	30	789
Quad Cities	461	270	431	16 c/	34	57	0	538
Chicago	489	426	915	22	28	5	12	982
Green Bay	459 d/-	168	627 d/	54 d/	8	4	0	693
Kenosha		134			30		0	683
Madison	249	511	760	69	33	13	0	875
Racine	478	285	763	29	26	7	6	831
Milwaukee	349	540	889	73	21	13	5	1,001
Fort Wayne	583 d/	134	717 d/	70 d/	21	6	0	814
Muncie		721			14		0	977
South Bend	336	207	543	23	30	10	0	606
Indianapolis	300	270	570	26	10	10	1	617
Terre Haute	415 d/	381	796 d/	10 d/	16	0	0	822
Bay City		236			9		0	686
Detroit	419	132	551	45	19	28	1	644
Flint	478	073	551	15	6	37	0	609
Grand Rapids	487	187	674	35	16	55	1	781

(1) Savings Deposits	(2) Insured Savings and Loan Shares	(3) Total Insured Savings (Columns) 1 + 2	(4) Credit Union Shares	(5) Postal Savings Deposits	(6) Certs. of Deposit (Member Bank only)	(7) Uninsured Savings and Loan Shares	(8) Total Savings (Sum of Columns 3 - 7)
Metropolitan Area								
Jackson	\$ 235	\$ 292	\$ 639	\$ 13	\$ 21	\$ 48	\$ 0	\$ 806
Kalamazoo	360	404	399	41	11	143	0	711
Lansing		039			14		234	831
Muskegon		117			6		0	503
Battle Creek		263			6		0	686
Saginaw		305			9		0	877
Cedar Rapids	379	120	499	41	31	19	147	737
Des Moines	209	567	776	43	11	12	26	868
Dubuque	582	139	721	48	32	43	0	844
Sioux City	309	232	541	19	30	6	4	600
Waterloo	137	368	505	64	22	7	1	599

a/ Certificates of deposit are as reported June 6, 1957.
Indiana State Credit Unions are as reported June 30, 1956.
Indiana and Michigan noninsured nonmember savings and loan
associations are also as reported June 30, 1956

b/ Assets are used as estimates of shareholdings in state
chartered credit unions in Iowa, Wisconsin, Illinois, and
Indiana.

c/ Federal credit unions only.

d/ Data are not listed to preserve the
identity of individual banks.

e/ Excludes state credit unions in Illinois.

SOURCES: 1. Savings deposit data from an unpublished series maintained by the Federal Reserve Bank of Chicago.

2. Insured and member noninsured savings and loan data from unpublished records of the Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.
3. Federal credit union data from the Federal Reserve Bank of Chicago. The original data were furnished by the Bureau of Federal Credit Unions.
4. State Credit Union data: Michigan - Annual reports of credit unions submitted to the State Banking Department.
Iowa - Unpublished data from the Iowa Credit Union League.
These data exclude an undetermined number of nonleague members.
Illinois - Chicago data from the Illinois Credit Union League, 1957 Yearbook, (Chicago, 1957).
Indiana - State of Indiana, Department of Financial Institutions, Annual Report, 1956.
Wisconsin- State of Wisconsin, Commissioner of Banks, Thirty-fourth Annual Report on the Condition of Credit Unions, 1956.
5. Postal savings data from the House of Representatives, Report of Operations of the Postal Savings System 1956, Document No. 11, 85th Congress, 1st Session.
6. Certificates of deposit data from the Federal Reserve Bank of Chicago. The data are based on member bank call reports.
7. Nonmember noninsured savings and loan association data:
Michigan - State of Michigan, Secretary of State, Report on Building and Loan and Savings and Loan Associations, 1956.
Iowa - State of Iowa, Annual Report on the Condition of Iowa Savings and Loan Associations, 1956
Illinois - State of Illinois, Auditor of Public Accounts, Directory of State-Chartered Savings and Loan Associations of Illinois, 1956.
Wisconsin- State of Wisconsin, Savings and Loan Department, Annual Report on the Condition of Wisconsin Savings and Loan Associations, 1956.
Indiana - State of Indiana, Department of Financial Institutions, Annual Report, 1956.

TABLE 27
SELECTED DATA ON INSURED SAVINGS - DECEMBER 31, 1956

	(1)	(2)	(3)	(4)	(5)	(6)
Metropolitan Area	Interest Rate on Savings Deposits	Interest Rate on Share Capital	Savings and Loan Offices Per 10,000 Population	Share Capital Per Capita	Savings Deposits Per Capita	Share Capital As a Per Cent of Insured Savings
Champaign-Urbana . .	1.00%	3.38%	.71%	\$275	\$126	68.5%
Decatur	1.50	3.39	.20	140	107	56.7
Peoria	2.09	3.05	.66	575	286	66.8
Rockford	1.50	2.50	.06	74	363	16.9
Springfield	2.00	3.00	.81	340	361	48.5
Quad Cities	1.21	3.00	.22	270	461	37.0
Fort Wayne	2.00	2.84	.11	134	583	19.5
South Bend	2.00	2.55	.30	207	336	38.2
Indianapolis	2.00	3.01	.35	270	300	48.0
Terre Haute	2.00	2.84	.78	381	415	47.9
Cedar Rapids	2.00	3.00	.10	120	379	24.0
Des Moines	2.05	3.02	.33	567	209	73.1
Dubuque	1.70	2.75	.68	139	582	19.3
Sioux City	2.00	3.00	.32	232	309	42.9
Waterloo	1.50	3.00	.61	368	137	72.8
Kalamazoo	1.86	3.00	.28	404	235	63.3
Detroit	1.05	2.57	.17	132	419	24.0
Green Bay	1.91	3.09	.31	168	459	26.8
Madison	1.00	3.00	.44	511	249	67.3
Racine	1.44	3.00	.51	285	478	37.4
Milwaukee	1.58	3.59	.62	540	349	60.1

TABLE 27

SELECTED DATA ON INSURED DEPOSIT SAVINGS - DECEMBER 31, 1956

(continued)

<u>Metropolitan Area</u>	<u>Interest Rate on Savings Deposits</u>	<u>Interest Rate on Share Capital</u>	<u>Savings and Loan Offices Per 10,000 Population</u>	<u>Share Capital Per Capita</u>	<u>Savings Deposits Per Capita</u>	<u>Share Capital As a Per Cent of Insured Savings</u>
Chicago.	1.99	3.09	.40	\$426	\$489	46.6
a	2.18	3.00	.15	b	b	43.1
a	2.00	3.00	.86	b	b	76.2
a	2.49	3.00	.06	b	b	9.9
a	1.00	2.50	.13	b	b	22.6
a	2.00	2.50	.13	b	b	37.2
a	2.50	3.00	.45	b	b	46.3
a	2.50	3.00	.12	b	b	13.3
a	2.00	2.50	.08	b	b	28.3
a	2.10	3.00	.10	b	b	27.8
a	2.00	3.00	.22	b	b	42.8

^aMetropolitan area is not named to preserve the identity of individual banks.

^bData not presented in accordance with the policy of the Federal Reserve Bank of Chicago.

SOURCES: Federal Reserve Bank of Chicago. The data are based on a survey of metropolitan area savings deposits.

Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

**CHANGES IN INTEREST RATES ON SAVINGS DEPOSITS AND
CHANGES IN INFLOWS OF SAVINGS DEPOSITS
1955 - 1956**

<u>Metropolitan Area</u>	(1) Increase in Interest Paid on Savings Deposits December 1955 - December 1956	(2) Change in Inflow of Savings De- posits per \$100 Balance
Champaign-Urbana	.06 %	\$ 6.3
Decatur	0	-1.4
Peoria	.51	- .3
Rockford	.50	.6
Springfield	0	2.5
Quad Cities	.02	-1.5
Green Bay	.51	1.4
Madison	0	2.5
Racine	.54	3.4
Milwaukee	.20	5.4
Fort Wayne	.50	1.4
South Bend	.68	2.0
Indianapolis	1.00	6.3
Terre Haute	.66	5.7
Detroit	.04	- .7
Kalamazoo	.86	4.7
Cedar Rapids	1.00	3.4
Des Moines	.05	-3.8
Dubuque	.20	- .1
Sioux City	0	-5.6
Waterloo	0	- .7
a	.49	-2.6
a	0	-5.9
a	0	-2.9
a	.49	.1
a	0	-6.1
a	1.00	1.6
a	.50	4.4
a	.50	-4.8
a	.81	1.3
a	1.00	4.0

^a Metropolitan areas are not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on a survey of metropolitan area savings deposits.

TABLE 29

CHANGES IN INTEREST RATES ON SAVINGS DEPOSITS AND
CHANGES IN INFLOWS OF SAVINGS DEPOSITS
1956-1957

Metropolitan Area	(1)	(2)
	Change in Interest Paid on Savings Deposits Dec. 1956-Dec. 1957	Change in Inflow of Savings Deposits (per \$100 balance) 1956-1957
Champaign-Urbana	1.00%	\$ 2.90
Decatur	.00	-12.70
Peoria	.31	-3.40
Rockford	.00	-2.70
Springfield	1.00	-.80
Quad Cities	.75	5.30
Chicago	-.07	-1.00
Green Bay	.04	.60
Madison	.93	3.00
Racine	.00	-3.30
Milwaukee	1.07	-.30
Fort Wayne	.00	-2.10
South Bend	-.03	-3.00
Indianapolis	.00	-3.20
Terre Haute	.00	-3.50
Detroit	.19	-1.30
Kalamazoo	.37	-5.40
Cedar Rapids	.00	-3.20
Des Moines	.89	16.90
Dubuque	.20	3.10
Sioux City	.75	8.40
Waterloo	.28	1.40
a	.00	-6.30
a	.51	-5.20
a	.50	2.60
a	.82	.60
a	.00	-4.40
a	.00	-2.50
a	.28	-5.20
a	.16	-4.60
a	1.00	-.90
a	.00	-4.00

^a Metropolitan area is not named in order to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on a survey of metropolitan area savings deposits.

TABLE 30

VARIABLES WHICH RELATE TO THE OUTFLOW OF SAVINGS DEPOSITS
1955

	(1) Spread Between Interest Rates on Share Capital and Savings Deposits December 31, 1955	(2) Increase In Share Capital 1955	(3) Inflow of Savings Deposits (per \$100 Balances) 1955	(4) Outflow of Savings Deposits (per \$100 Balances) 1955
Metropolitan Area				
Champaign - Urbana	2.34%	15.1%	\$78.90	\$59.20
Decatur	1.92	30.4	95.90	92.00
Peoria	1.39	12.3	60.20	55.20
Rockford	1.50	22.8	60.90	55.90
Springfield	.60	12.4	60.50	50.90
Quad Cities	1.79	14.4	54.20	53.20
Green Bay	1.52	19.0	51.30	51.10
Madison	1.98	21.0	57.50	62.30
Racine	2.10	19.2	56.40	56.60
Milwaukee	2.16	23.9	63.00	63.70
Fort Wayne	1.00	12.8	47.80	44.50
South Bend	1.19	10.0	54.50	50.00
Indianapolis	1.70	12.2	49.20	48.70
Terre Haute	1.36	7.7	35.40	35.10
Detroit	1.48	21.8	65.90	61.80
Kalamazoo	2.26	13.4	69.80	68.90
Cedar Rapids	2.00	13.9	56.20	58.10
Des Moines	1.00	16.4	62.20	59.10
Dubuque	1.25	19.9	40.10	37.50
Sioux City	1.00	31.9	46.40	44.10
Waterloo	1.50	18.0	62.20	64.20

	(1) Spread Between Interest Rates on Share Capital and Savings Deposits December 31, 1955	(2) Increase In Share Capital 1955	(3) Inflow of Savings Deposits (per \$100 Balances) 1955	(4) Outflow of Savings Deposits (per \$100 Balances) 1955
<u>Metropolitan Area</u>				
a	1.50%	18.9%	\$57.10	\$54.00
a	.50	13.6	67.40	61.50
a	1.00	19.0	80.30	67.50
a	.50	28.9	75.50	65.60
a	1.00	10.2	57.80	51.50
a	1.50	12.8	56.70	54.00
a	1.50	21.5	55.10	54.10
a	.52	9.0	68.50	60.20
a	.81	17.4	66.20	60.80
a	1.27	11.4	72.50	68.20

a Metropolitan area is not names in order to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago
Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.

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TABLE 31

VARIABLES RELATING TO THE OUTFLOW OF SAVINGS DEPOSITS
1956

Metropolitan Area	(1) Spread Between Interest Rates on Savings Deposits and Share Capital Dec. 31, 1956	(2) Increase in Share Capital, 1956	(3) Inflow of Savings Deposits (per \$100 balances), 1956	(4) Outflow of Savings Deposits (per \$100 balances), 1956
Champaign-Urbana. .	2.38%	13.1%	\$85.20	\$77.80
Decatur.	1.89	35.1	94.50	82.60
Peoria.	.96	10.8	59.90	52.70
Rockford.	1.00	21.7	61.50	56.50
Springfield	1.00	12.1	63.00	46.70
Quad Cities	1.79	14.4	52.70	54.70
Green Bay	1.18	24.0	52.60	49.40
Madison	2.00	15.8	60.00	63.80
Racine.	1.56	17.3	59.80	54.00
Milwaukee	2.01	12.3	68.40	68.30
Fort Wayne.	.84	7.5	49.20	44.10
South Bend.	.55	9.5	56.50	51.90
Indianapolis. . . .	1.01	9.6	55.50	49.10
Terre Haute	.84	7.3	41.10	33.00
Detroit	1.52	21.3	65.20	68.80
Kalamazoo	1.14	13.2	74.50	68.30
Cedar Rapids. . . .	1.00	11.6	59.60	56.20
Des Moines.	.97	11.9	58.40	58.20
Dubuque	1.05	13.2	40.00	37.80
Sioux City.	1.00	23.9	40.80	40.00
Waterloo.	1.50	13.1	61.50	66.60
a	.82	14.7	63.60	57.40
a	1.00	6.7	51.90	48.70
a	1.00	12.9	64.50	58.90
a	.51	9.5	80.40	58.80
a	1.50	17.5	51.00	51.50
a	.50	13.0	58.30	54.10
a	.50	8.7	72.90	56.70
a	.50	18.6	70.70	61.40
a	.90	17.6	73.80	64.00
a	.50	14.5	59.10	54.70

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on a survey of metropolitan area savings deposits. Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 32

VARIABLES RELATING TO THE OUTFLOW OF SAVINGS DEPOSITS
1957

<u>Metropolitan Area</u>	<u>Spread Between Interest Rates on Savings Deposits and Share Capital Dec. 31, 1957</u>	<u>Increase in Share Capital, 1957</u>	<u>Inflow of Savings Deposits (per \$100 balances), 1957</u>	<u>Outflow of Savings Deposits (per \$100 balances), 1957</u>
Champaign-Urbana. .	1.48%	26.7%	\$88.12	\$63.16
Decatur.	1.89	27.0	81.79	77.48
Peoria.	1.11	17.1	56.49	52.17
Rockford.	1.50	22.0	58.75	54.33
Springfield	.04	10.6	62.19	43.87
Quad Cities	1.04	5.1	58.03	58.34
Chicago	1.49	19.2	51.39	46.94
Green Bay	1.14	15.9	53.21	51.49
Madison	1.55	17.9	62.96	58.44
Racine.	2.06	6.6	56.49	50.17
Milwaukee	1.32	14.4	68.12	56.48
Fort Wayne.	1.00	29.4	47.15	46.33
South Bend.	1.03	14.6	53.48	47.65
Indianapolis.	1.06	10.3	52.32	48.21
Terre Haute	.95	8.2	37.57	32.91
Detroit	1.76	24.6	63.86	66.14
Kalamazoo	.77	11.1	69.10	63.04
Cedar Rapids.	1.00	6.1	56.36	50.42
Des Moines.	.56	10.0	75.27	54.87
Dubuque	1.10	9.4	43.05	44.17
Sioux City.	.50	13.7	49.22	36.93
Waterloo.	1.72	14.0	62.72	66.12
a	1.00	15.7	51.95	48.12
a	.50	12.8	75.68	50.15
a	.24	7.9	75.54	51.15
a	.50	11.8	64.22	50.22
a	1.00	14.5	54.70	54.05
a	1.50	6.1	49.36	47.51
a	.35	15.8	65.52	56.90
a	.99	7.4	69.19	58.78
a	1.00	22.4	50.05	46.19
a	1.00	10.4	60.51	57.07

^a Metropolitan area is not named to preserve the identify of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based on a survey of metropolitan area savings deposits. Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 33

THE INTEREST RATE ON SAVINGS DEPOSITS
AND THE GROWTH IN SAVINGS DEPOSITS
1955

<u>Metropolitan Area</u>	(1) Interest Rate on Savings Deposits Dec. 31, 1955	(2) Growth of Savings Deposits (per \$100 Balances)
Champaign-Urbana	.94%	\$19.70
Decatur	1.50	3.90
Peoria	1.58	5.00
Rockford	1.00	5.00
Springfield	2.00	9.60
Quad Cities	1.19	1.00
Green Bay	1.40	.20
Madison	1.00	-4.80
Racine	.90	-.20
Milwaukee	1.38	-.70
Fort Wayne	1.50	3.30
South Bend	1.32	4.50
Indianapolis	1.00	.50
Terre Haute	1.34	.30
Detroit	1.01	4.10
Kalamazoo	1.00	.90
Cedar Rapids	1.00	-1.90
Des Moines	2.00	3.10
Dubuque	1.50	2.60
Sioux City	2.00	2.30
Waterloo	1.50	-2.00
a	1.00	3.10
a	2.00	5.90
a	2.00	12.80
a	2.00	9.90
a	2.00	6.30
a	1.00	2.70
a	1.00	1.00
a	2.00	8.30
a	1.69	5.40
a	1.29	4.30

^aMetropolitan area is not named in order to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based upon an unpublished survey of metropolitan area savings deposits.
Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 34

THE INTEREST RATE ON SAVINGS DEPOSITS
AND THE GROWTH IN SAVINGS DEPOSITS
1956

<u>Metropolitan Area</u>	(1) Interest Rate on Savings Deposits Dec. 31, 1956	(2) Increase in Savings Deposits (per \$100 balance) 1956)
Champaign-Urbana	1.00%	\$ 7.4
Decatur	1.50	11.9
Peoria	2.09	7.2
Rockford	1.50	5.0
Springfield	2.00	16.3
Quad Cities	1.21	- 2.0
Green Bay	1.91	3.2
Madison	1.00	- 3.8
Racine	1.44	5.8
Milwaukee	1.58	.1
Fort Wayne	2.00	5.1
South Bend	2.00	4.6
Indianapolis	2.00	6.4
Terre Haute	2.00	8.1
Detroit	1.05	- 3.7
Kalamazoo	1.86	6.2
Cedar Rapids	2.00	3.4
Des Moines	2.05	.2
Dubuque	1.70	2.2
Sioux City	2.00	.8
Waterloo	1.50	- 5.1
a	2.18	6.3
a	2.00	3.2
a	2.00	8.1
a	2.49	21.6
a	2.50	- .5
a	2.00	4.2
a	2.50	16.2
a	2.50	9.3
a	2.10	9.8
a	2.00	4.4

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based upon an unpublished survey of metropolitan area savings deposits.

TABLE 35

THE INTEREST RATE ON SAVINGS DEPOSITS
AND THE GROWTH IN SAVINGS DEPOSITS
1957

<u>Metropolitan Area</u>	(1) Interest Rate on Savings Deposits Dec. 31, 1957	(2) Increase in Savings Deposits (per \$100 balances) 1957
Champaign-Urbana	2.00%	\$24.96
Decatur	1.30	4.31
Peoria	2.40	4.32
Rockford	1.50	4.43
Springfield	3.00	18.32
Quad Cities	1.96	- .31
Chicago	1.92	4.45
Green Bay	1.95	1.72
Madison	3.48	4.52
Racine	1.44	6.02
Milwaukee	2.65	11.64
Fort Wayne	2.00	.82
South Bend	1.97	5.83
Indianapolis	2.00	4.11
Terre Haute	2.00	4.66
Detroit	1.24	-2.28
Kalamazoo	2.23	6.06
Cedar Rapids	2.00	5.94
Des Moines	2.94	20.40
Dubuque	1.90	-1.12
Sioux City	2.75	12.29
Waterloo	1.78	-3.40
a	2.00	3.83
a	3.00	25.53
a	3.00	24.34
a	3.00	14.00
a	2.00	.65
a	2.00	1.85
a	2.78	8.62
a	2.26	10.41
a	2.00	3.86
a	2.00	3.44

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based upon an unpublished survey of metropolitan area savings deposits.

VARIABLES WHICH RELATE TO CHANGES IN
THE RATE OF SAVINGS DEPOSIT GROWTH
1956

	(1)	(2)	(3)
Metropolitan Area	Interest Rate on Savings Deposits Dec. 31, 1956	Increase in Interest Rate on Savings Deposits Dec. 31, 1956	Change in Rate of Savings Deposit Growth 1955-1956 (per \$100 balances)
Champaign-			
Urbana	1.00%	.06%	-\$12.30
Decatur	1.50	.00	8.00
Peoria	2.09	.51	2.30
Rockford	1.50	.50	.00
Springfield	2.00	.00	6.70
Quad Cities	1.21	.02	-3.00
Green Bay	1.91	.51	3.20
Madison	1.00	.00	1.00
Racine	1.44	.54	6.00
Milwaukee	1.58	.20	.80
Fort Wayne	2.00	.50	1.80
South Bend	2.00	.68	.10
Indianapolis ...	2.00	1.00	5.90
Terre Haute	2.00	.66	7.80
Detroit	1.05	.04	-7.70
Kalamazoo	1.86	.86	5.30
Cedar Rapids ...	2.00	1.00	5.30
Des Moines	2.05	.05	-2.90
Dubuque	1.70	.20	-.40
Sioux City	2.00	.00	-1.50
Waterloo	1.50	.00	-3.10
a	2.18	.49	.80
a	2.00	.00	-3.20
a	2.00	.00	-.30
a	2.49	.49	8.80
a	2.50	.00	-3.60
a	2.00	1.00	3.30
a	2.50	.50	7.80
a	2.50	.50	▼.60
a	2.10	.81	-5.50
a	2.00	1.00	1.50

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago

TABLE 37
VARIABLES WHICH RELATE TO
CHANGES IN THE RATE OF SAVINGS DEPOSIT GROWTH, 1957

	(1) Interest Rate on Savings Deposits December 31, 1956	(2) Increase in Interest Rate on Savings Deposits December 31, 1956- December 31, 1957	(3) Change in Rate of Savings Deposit Growth 1956-1957 (per \$100 balances)
<u>Metropolitan Area</u>			
Champaign-Urbana	2.00%	1.00%	\$17.40
Decatur	1.50	0	-7.60
Peoria	2.40	.31	-2.90
Rockford	1.50	0	-.60
Springfield	3.00	1.00	2.00
Quad Cities	1.96	.75	1.70
Chicago	1.92	-.07	1.20
Fort Wayne	2.00	0	-4.30
South Bend	1.97	-.03	1.20
Indianapolis	2.00	0	-2.30
Terre Haute	2.00	0	-3.40
Cedar Rapids	2.00	0	2.50
Des Moines	2.94	.89	20.20
Dubuque	1.90	.20	-3.30
Sioux City	2.75	.75	11.50
Waterloo	1.78	.28	1.70

TABLE 37

VARIABLES WHICH RELATE TO
CHANGES IN THE RATE OF SAVINGS DEPOSIT GROWTH, 1957

	(1) Interest Rate on Savings Deposits December 31, 1956	(2) Increase in Interest Rate on Savings Deposits December 31, 1956- December 31, 1957	(3) Change in Rate of Savings Deposit Growth 1956-1957 (per \$100 balances)
<u>Metropolitan Area</u>			
Kalamazoo	2.23%	.37	\$ -.10
Detroit	1.24	.19	1.40
Green Bay	1.95	.04	-1.50
Madison	1.93	.93	8.30
Racine	1.44	0	.20
Milwaukee	2.65	1.07	11.50
a	2.00	0	-1.30
a	3.00	.51	3.90
a	3.00	.50	8.10
a	3.00	.82	7.70
a	2.00	0	-3.70
a	2.00	0	-.40
a	2.78	.25	-.70
a	2.26	.16	.60
a	2.00	1.00	4.30
a	2.00	0	-2.10

^a Metropolitan area is not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

TABLE 38

INFLOW AND OUTFLOW OF SHARE CAPITAL
(per \$100 of the average monthly share savings)

Metropolitan Area or Center	July - December 1955		July - December 1956	
	<u>inflow</u>	<u>outflow</u>	<u>inflow</u>	<u>outflow</u>
Adrian	\$22.92	\$16.71	\$22.38	\$18.48
Battle Creek	22.18	19.59	24.27	19.02
Bay City	22.15	15.55	20.37	16.02
Detroit	32.10	19.91	27.00	20.50
Flint	23.37	22.76	26.24	17.36
Grand Rapids	16.81	11.86	16.81	11.55
Jackson	17.36	13.46	19.52	12.70
Kalamazoo	23.33	17.13	21.51	16.65
Lansing	23.35	14.45	21.62	19.89
Muskegon	27.26	20.82	27.15	26.29
Port Huron	24.14	18.02	26.36	18.11
Saginaw	17.89	13.25	18.75	12.20
Fort Wayne	17.49	12.00	18.26	14.23
Lafayette	16.61	11.17	14.72	10.74
Muncie	13.89	11.04	13.90	11.42
South Bend	19.23	15.06	19.38	16.30
Terre Haute	11.63	8.00	11.48	9.15
Indianapolis	16.49	11.83	16.12	11.86
Des Moines	19.10	12.70	17.70	13.70
Milwaukee	18.30	10.49	17.69	13.62
Chicago	30.60	18.49	25.20	18.50

SOURCE: Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.

TABLE 39

INCREASE OR DECREASE IN SHARE CAPITAL INFLOW
(July-December 1956 compared with July-December 1955)

Metropolitan area or center	(1)	(2)
	Increase in Interest Rate On Share Capital December 1955-December 1956	Change in Rate of In- flow of Share Capital July-December 1955 to July-December 1956
Fort Wayne	.34%	.77%
Lafayette	.01	-1.89
Muncie	0	.01
South Bend	.04	1.24
Indianapolis	.31	-.37
Terre Haute	.14	-.15
Adrian	.50	-.55
Bay City	0	-1.78
Detroit	.08	-5.10
Flint	.50	2.87
Grand Rapids	.44	0
Jackson	.50	2.16
Kalamazoo	-.26	-1.82
Lansing	0	-1.73
Muskegon	0	-.11
Port Huron	.50	2.22
Battle Creek	.48	2.09
Saginaw	.50	.86
Des Moines	.02	-1.40
Milwaukee	.05	-.60

SOURCE: Federal Home Loan Bank of Indianapolis.

TABLE 40

SAVINGS AND LOAN ASSOCIATION SHARE ACCOUNTS GREATER THAN \$10,000

Metropolitan Area or Center ^a	Highest Dividend Paid In Area or Center	Per Cent of Accts.Greater Than \$10,000 Deposited In Highest Paying Associations	Lowest Dividend Paid In Area or Center	Per Cent of Accts.Greater Than \$10,000 Deposited In Lowest Paying Associations	Other Dividend Rates Paid	Per Cent of Accts.Greater Than \$10,000 Deposited In Other Associations
1	(1) ^b 4.0%	2.4%	(12) 3.0%	94.3%	(1) 3.5%	3.3%
2	(4) 3.0	12.7	(17) 2.5	86.2	(1) 2.75	1.1
3	(1) 3.5	.5	(15) 3.0	99.5		
4	(1) 3.0	87.5	(1) 2.5	12.5		
5	(1) 3.0	12.2	(1) 2.5	87.8		
6	(2) 3.0	9.8	(6) 2.5	90.2		
7	(3) 3.0	45.2	(1) 2.5	16.8	(2) 2.75	38.0

^aThe areas or centers are not named to preserve the identity of individual associations.

^bFigure in () denotes the number of associations which pay the indicated rate.

SOURCE: Federal Home Loan Bank of Indianapolis.

TABLE 41

SELECTED SAVINGS AND LOAN ASSOCIATION DATA

Metropolitan Area or Center	Weighted Average Dividend on Share Capital Dec. 1956	Weighted Advtg. Expense to Share Capital 1956 ^b	Net Increase in Share Capital 1956	Average Account Size Dec. 1956	Accounts Greater than \$10,000 (% of Total Share Capital) Dec. 1956
South Bend	2.56%	.21%	9.5%	\$1,696	17.3%
Indianapolis	3.01	.23	9.6	2,196	20.3
Terre Haute	2.84	.08	7.3	2,476	20.9
Detroit	2.57	.23	21.3	1,759	18.8
a	2.84	.09	7.5	2,381	20.1
a	2.60	.15	11.0	1,943	27.1
a	3.00	.10	6.7	2,302	32.8
a	3.00	.19	12.7	1,771	27.6
a	2.50	.07	13.0	2,148	33.2
a	3.00	.30 ^c	18.6	2,124	29.8
a	3.00	.08	17.6	2,990	29.2
a	3.00	.18	12.9	1,740	23.6
a	2.50	.13	14.5	1,845	26.6
a	3.00	.40	16.3	905	13.7
a	3.00	.19	9.7	1,883	25.8
a	3.00	.30	8.7	1,436	20.7
a	3.00	.16	14.7	2,172	32.8

^aThe area or center is not named to preserve the identity of individual associations.

^bMichigan State Chartered Associations reported advertising expense from July 1, 1955-June 30, 1956.

^cData on one major association were not available.

SOURCE: Unpublished annual reports of member associations submitted to the Federal Home Loan Bank of Indianapolis.

TABLE 42

VARIABLES WHICH RELATE WITH THE SAVINGS AND LOAN
ASSOCIATION'S SHARE OF AREA NET SAVING IN BANKS
AND SAVINGS ASSOCIATIONS 1955

	(1) Interest rate on Savings Deposits December 1955	(2) Spread Between Rates on Share Capital and Savings Deposits December 1955	(3) Savings Association's Share of Net Saving in Banks and Savings Associations, 1955
<u>Metropolitan Area</u>			
Champaign-Urbana	.94%	2.34%	83.5%
Decatur	1.50	1.92	87.4
Peoria	1.58	1.39	80.2
Rockford	1.00	1.50	40.2
Springfield	2.00	.60	53.9
Quad Cities	1.19	1.79	88.3
Green Bay	1.40	1.52	98.2
Madison	1.00	1.98	100.0
Racine	.90	2.10	100.0
Milwaukee	1.38	2.16	98.0
Fort Wayne	1.50	1.00	46.3
South Bend	1.32	1.19	45.0
Indianapolis	1.00	1.70	95.0

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VARIABLES WHICH RELATE WITH THE SAVINGS AND LOAN
ASSOCIATION'S SHARE OF AREA NET SAVING IN BANKS
AND SAVINGS ASSOCIATIONS 1955

	(1) Interest Rate on Savings Deposits December 1955	(2) Spread Between Rates on Share Capital and Savings Deposits December 1955	(3) Savings Association's Share of Net Saving in Banks and Savings Associations, 1955
<u>Metropolitan Area</u>			
Terre Haute	1.34%	1.36%	95.6%
Detroit	1.01	1.48	58.3
Kalamazoo	1.00	2.26	95.9
Cedar Rapids	1.00	2.00	100.0
Des Moines	2.00	1.00	90.9
Dubuque	1.50	1.25	61.2
Sioux City	2.00	1.00	86.6
Waterloo	1.50	1.50	100.0
a	1.00	1.50	55.9
a	2.00	.50	59.7
a	2.00	1.00	13.2
a	2.00	.50	17.5
a	2.00	1.00	83.3
			245

VARIABLES WHICH RELATE WITH THE SAVINGS AND LOAN
ASSOCIATION'S SHARE OF AREA NET SAVING IN BANKS
AND SAVINGS ASSOCIATIONS 1955

	(1) Interest rate on Savings Deposits December 1955	(2) Spread Between Rates on Share Capital and Savings Deposits December 1955	(3) Savings Association's Share of Net Saving in Banks and Savings Associations, 1955
<u>Metropolitan Area</u>			
a	1.00%	1.50%	70.2%
a	1.00	1.50	86.3
a	2.00	.52	34.4
a	1.69	.81	66.3
a	1.29	1.27	46.8
Correlation coefficient of column variable with column 3	-.39	.65	

^a Metropolitan areas are not named to preserve the identity of individual banks.

Sources: Federal Reserve Bank of Chicago, the data are based on an unpublished survey of metropolitan area savings deposits.
Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 43

VARIABLES WHICH RELATE TO THE SAVINGS AND LOAN
ASSOCIATIONS' SHARE OF AREA NET SAVINGS IN
BANKS AND SAVINGS ASSOCIATIONS
1956

	(1)	(2)	(3)
	Interest Rate on Savings Deposits Dec. 31, 1956	Spread Between Interest Rates on Savings Deposits and Share Capital Dec. 31, 1956	Savings Associations Share of Net Savings in Banks and Savings Associations 1956
<u>Metropolitan Area</u>			
Champaign-Urbana	1.00%	2.38%	74.5%
Decatur	1.50	1.89	75.2
Peoria	2.09	0.96	73.9
Rockford	1.50	1.00	42.4
Springfield	2.00	1.00	38.8
Quad Cities	1.21	1.79	100.0
Green Bay	1.91	1.18	69.3
Madison	1.00	2.00	100.0
Racine	1.44	1.56	76.8
Milwaukee	1.58	2.01	76.4
Fort Wayne	2.00	.84	25.6
South Bend	2.00	.55	56.4
Indianapolis	2.00	1.01	56.6
Terre Haute	2.00	.84	44.6
Detroit	1.05	1.52	100.0
Kalamazoo	1.86	1.14	77.0
Cedar Rapids	2.00	1.00	49.7
Des Moines	2.05	.97	94.6
Dubuque	1.70	1.05	58.3
Sioux City	2.00	1.00	94.9
Waterloo	1.50	1.50	100.0
Chicago	1.99	1.10	79.1

-continued-

TABLE 43

VARIABLES WHICH RELATE TO THE SAVINGS AND LOAN
ASSOCIATIONS' SHARE OF AREA NET SAVINGS IN
BANKS AND SAVINGS ASSOCIATIONS
1956

	(1)	(2)	(3)
		Spread Between Interest Rates on Savings Deposits and Share Capital	Savings Associations Share of Net Savings in Banks and Savings Associations
<u>Metropolitan Area</u>	<u>Interest Rate on Savings Deposits Dec. 31, 1956</u>	<u>Dec. 31, 1956</u>	<u>1956</u>
a	2.18%	.82%	61.6%
a	2.00	1.00	86.7
a	2.00	1.00	61.6
a	2.49	.51	4.7
a	2.50	1.50	100.0
a	2.00	.50	65.2
a	2.50	.50	31.8
a	2.50	.50	24.3
a	2.10	.90	38.2
a	2.00	.50	54.2

^aMetropolitan area not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 44

VARIABLES WHICH RELATE TO THE SAVINGS AND LOAN
ASSOCIATIONS' SHARE OF AREA NET SAVING IN
BANKS AND SAVINGS ASSOCIATIONS
1957

	(1)	(2)	(3)
	Interest Rate on Savings Deposits Dec. 31, 1957	Spread Between Interest Rates on Share Capital and Savings Deposits Dec. 31, 1957	Savings Associations' Share of Net Saving in Banks and Savings Associations, 1957
<u>Metropolitan Area</u>			
Champaign-Urbana	2.00%	1.48%	66.4%
Decatur	1.50	1.89	88.7
Peoria	2.40	1.11	88.8
Rockford	1.50	1.50	60.6
Springfield	3.00	.04	33.8
Quad Cities	1.96	1.04	100.0
Chicago	1.92	1.49	78.5
Green Bay	1.95	1.14	79.5
Madison	1.93	1.55	89.0
Racine	1.44	2.06	39.3
Milwaukee	2.65	1.32	64.7
Fort Wayne	2.00	1.00	90.6
South Bend	1.97	1.03	60.1
Indianapolis	2.00	1.06	69.6
Terre Haute	2.00	.95	59.8
Detroit	1.24	1.76	100.0
Kalamazoo	2.23	.77	75.5
Cedar Rapids	2.00	1.00	23.4
Des Moines	2.94	.56	55.0
Dubuque	1.90	1.10	100.0
Sioux City	2.75	.50	44.2
Waterloo	1.78	1.72	100.0

-continued-

TABLE 44

VARIABLES WHICH RELATE TO THE SAVINGS AND LOAN
ASSOCIATIONS' SHARE OF AREA NET SAVINGS IN
BANKS AND SAVINGS ASSOCIATIONS
1957

(continued)

	(1)	(2)	(3)
	Interest Rate on Savings Deposits Dec. 31, 1957	Spread Between Interest Rates on Share Capital and Savings Deposits Dec. 31, 1957	Savings Associations' Share of Net Saving in Banks and Savings Associations, 1957
<u>Metropolitan Area</u>			
a	2.00%	1.50%	91.4%
a	3.00	.50	4.7
a	3.00	.24	19.9
a	3.00	.50	37.6
a	2.00	1.00	90.4
a	2.00	1.00	70.8
a	2.78	.35	21.3
a	2.26	.99	20.8
a	2.00	1.00	62.9
a	2.00	1.00	75.0

^aMetropolitan areas are not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 45

CHANGES IN THE INTEREST RATES ON SAVINGS DEPOSITS AND
CHANGES IN THE SHARE OF NET SAVING FLOWING INTO
SAVINGS AND LOAN ASSOCIATIONS
1955 - 1956

<u>Metropolitan Area</u>	(1) Increase in Interest Paid on Savings Deposits Dec. 31, 1955- Dec. 31, 1956	(2) Change in Savings Association's Share of Net Saving in Banks and Savings Associations 1955 - 1956
Champaign-Urbana	.06%	- 9.0%
Decatur	.00	-12.2
Peoria	.51	- 6.3
Rockford	.50	2.2
Springfield	.00	-15.1
Quad Cities	.02	11.7
Green Bay	.51	-28.9
Madison	.00	0
Racine	.54	-23.2
Milwaukee	.20	-21.6
Fort Wayne	.50	-20.7
South Bend	.68	11.4
Indianapolis	1.00	38.4
Terre Haute	.66	-51.0
Detroit	.04	41.7
Kalamazoo	.86	-18.9
Cedar Rapids	1.00	-50.3
Des Moines	.05	3.7
Dubuque	.20	- 2.9
Sioux City	0	8.3
Waterloo	0	0
a	.49	- 4.7
a	0	3.4
a	0	1.9
a	.49	- 8.5
a	0	44.0
a	1.00	- 5.0
a	.50	- 2.6
a	.50	6.8
a	.81	- 8.6
a	1.00	-32.1

^aMetropolitan areas are not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.
Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

CHANGES IN THE INTEREST RATE PAID ON SAVINGS DEPOSITS AND
CHANGES IN THE SHARE OF NET SAVING FLOWING INTO
SAVINGS AND LOAN ASSOCIATIONS
1956 - 1957

<u>Metropolitan Area</u>	(1)	(2)
	Increase in Interest Paid on Savings Deposits Dec. 31, 1956- Dec. 31, 1957	Change in Savings Association's Share of Net Saving in Banks and Savings Associations 1956 - 1957
Champaign-Urbana	1.00%	-10.1%
Decatur	0	13.5
Peoria	.31	11.9
Rockford	0	18.2
Springfield	1.00	- 5.0
Quad Cities	.75	0
Chicago	- .07	- .6
Green Bay	.04	10.2
Madison	.93	-11.0
Racine	0	-37.5
Milwaukee	1.07	-11.7
Fort Wayne	0	65.0
South Bend	- .03	3.7
Indianapolis	0	13.1
Terre Haute	0	15.2
Detroit	.19	0
Kalamazoo	.37	- 1.5
Cedar Rapids	0	-26.3
Des Moines	.89	-39.6
Dubuque	.20	47.1
Sioux City	.75	-50.7
Waterloo	.28	0
a	0	4.7
a	.51	0
a	.50	-19.9
a	.82	-24.1
a	0	13.4
a	0	5.6
a	.28	- 3.0
a	.16	-17.4
a	1.00	-37.1
a	0	13.4

^aMetropolitan area not named to preserve the identity of individual banks.

SOURCE: Federal Reserve Bank of Chicago, the data are based on an unpublished survey of metropolitan area savings deposits. Federal Home Loan Bank of Chicago, Des Moines, and Indianapolis.

TABLE 47

VARIABLES WHICH RELATE TO THE RELATIVE INCREASE IN IMPORTANCE
OF SAVINGS ASSOCIATIONS AS AREA THRIFT INSTITUTIONS

1955

Metropolitan Area	(1) Interest Rate on Savings Deposits December 1955	(2)	(3)
		Spread Between Rates on Share Capital and Sav- ings Deposits December 1955	Change In Share Capital as a Per Cent of Savings In Banks and Sav- ings Associations
Champaign-Urbana	.94%	2.34%	1.9%
Decatur	1.50	1.92	5.7
Peoria	1.58	1.39	.9
Rockford	1.00	1.50	1.2
Springfield	2.00	.60	0
Quad Cities	1.19	1.79	3.1
Fort Wayne	1.50	1.00	1.3
South Bend	1.32	1.19	.6
Indianapolis	1.00	1.70	2.7
Terre Haute	1.34	1.36	1.8
Cedar Rapids	1.00	2.00	2.5
Des Moines	2.00	1.00	1.7
Dubuque	1.50	1.25	2.2
Sioux City	2.00	1.00	5.7
Waterloo	1.50	1.50	4.1
Kalamazoo	1.00	2.26	2.8
Detroit	1.01	1.48	2.5
Green Bay	1.40	1.52	3.0
Madison	1.00	1.98	5.9
Racine	.90	2.10	3.0
Milwaukee	1.38	2.16	5.0
a	1.00	1.50	2.1
a	2.00	.50	1.7
a	2.00	1.00	.3
a	2.00	.50	.5
a	2.00	1.00	.7
a	1.00	1.50	2.2
a	1.00	1.50	3.5
a	2.00	.52	0
a	1.69	.81	2.5
a	1.29	1.27	.8

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits. Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.

TABLE 48

VARIABLES WHICH RELATE TO
THE RELATIVE INCREASE IN IMPORTANCE OF SAVINGS ASSOCIATIONS
AS AREA THRIFT INSTITUTIONS

	(1) Interest Rate on Savings Deposits December 1956	(2) Spread Between Interest Rates on Savings Deposits and Share Capital December 1956	(3) Change in Share Capital as a per cent of Savings in Banks and Savings Associations 1956
<u>Metropolitan Area</u>			
Champaign-Urbana	1.00%	2.38%	1.1%
Decatur	1.50	1.89	4.5
Peoria	2.09	.96	.7
Rockford	1.50	1.00	2.6
Springfield	2.00	1.00	-1.5
Quad Cities	1.21	1.79	3.6
Chicago	1.99	1.10	3.3
Fort Wayne	2.00	.84	.4
South Bend	2.00	.55	1.2
Indianapolis	2.00	1.01	.7
Terre Haute	2.00	.84	-.3
Cedar Rapids	2.00	1.00	1.4
Des Moines	2.05	.97	3.0
Dubuque	1.70	1.05	1.5
Sioux City	2.00	1.00	5.0
Waterloo	1.50	1.50	3.5

TABLE 48

VARIABLES WHICH RELATE TO
THE RELATIVE INCREASE IN IMPORTANCE OF SAVINGS ASSOCIATIONS
AS AREA THRIFT INSTITUTIONS

	(1)	(2)	(3)
Metropolitan Area	Interest Rate on Savings Deposits December 1956	Spread Between Interest Rates on Savings Deposits and Share Capital December 1956	Change in Share Capital as a per cent of Savings in Banks and Savings Associations 1956
Kalamazoo	1.86%	1.14%	1.5%
Detroit	1.05	1.52	3.8
Green Bay	1.91	1.18	3.4
Madison	1.00	2.00	4.2
Racine	1.44	1.56	3.1
Milwaukee	1.58	2.01	1.0
1	2.18	.82	1.8
1	2.00	1.00	.6
1	2.00	1.00	-.3
1	2.49	.51	-1.1
1	2.50	1.50	2.6
1	2.00	.50	1.8
1	2.50	.50	-1.9
1	2.50	.50	1.0
1	2.10	.90	1.3
1	2.00	.50	1.9

¹ Metropolitan areas are not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 49

VARIABLES WHICH RELATE TO THE RELATIVE
INCREASE IN IMPORTANCE OF SAVINGS ASSOCIATIONS
AS AREA THRIFT INSTITUTIONS
1957

	(1) Interest Rate on Savings Deposits Dec. 31, 1957	(2) Spread Between Rates on Share Capital and Savings Deposits Dec. 31, 1957	(3) Change in Share Capital as a Per Cent of Savings in Banks and Savings Associations - 1957
Metropolitan Area			
Champaign- Urbana	2.00%	1.48%	-3.3%
Decatur	1.50	1.89	4.0
Peoria	2.40	1.11	2.5
Rockford	1.50	1.50	2.3
Springfield	3.00	.04	-1.7
Quad Cities	1.96	1.04	1.4
Chicago	1.92	1.49	4.0
Fort Wayne	2.00	1.00	4.2
South Bend	1.97	1.03	1.9
Indianapolis	2.00	1.06	1.4
Terre Haute	2.00	.95	.9
Cedar Rapids	2.00	1.00	1.6
Des Moines	2.94	.56	-2.1
Dubuque	1.90	1.10	1.9
Sioux City	2.75	.50	1.2
Waterloo	1.78	1.72	3.6
Kalamazoo	2.23	.77	1.0
Detroit	1.24	1.76	4.7
Green Bay	1.95	1.14	2.7
Madison	1.93	1.55	2.6

TABLE 49

VARIABLES WHICH RELATE TO THE RELATIVE
INCREASE IN IMPORTANCE OF SAVINGS ASSOCIATIONS
AS AREA THRIFT INSTITUTIONS
1957

	(1) Interest Rate on Savings Deposits Dec. 31, 1957	(2) Spread Between Rates on Share Capital and Savings Deposits Dec. 31, 1957	(3) Change in Share Capital as a Per Cent of Savings in Banks and Savings Associations - 1957
Metropolitan Area			
Racine	1.44	2.06	.1
Milwaukee	2.65	1.32	1.0
a	2.00	1.50	.7
a	3.00	.50	-1.1
a	3.00	.24	-4.2
a	3.00	.50	-.8
a	2.00	1.00	1.6
a	2.00	1.00	2.8
a	2.78	.35	.7
a	2.26	.99	-.5
a	2.00	1.00	3.1
a	2.00	1.00	1.6

^a Metropolitan area is not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago, the data are based on an unpublished survey of metropolitan area savings deposits.

Federal Home Loan Bank of Chicago, Des Moines, and Indianapolis.

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TABLE 50

WEIGHTED AVERAGE INTEREST RATES ON INSURED SAVINGS AND
INCREASES IN INSURED SAVINGS

1955

Metropolitan area	(1) Weighted Average Interest Paid on Insured Savings December 31, 1955	(2) Increase in Insured Savings 1955
Champaign-Urbana	2.52%	11.9%
Decatur	2.50	17.2
Peoria	2.50	10.0
Quad Cities	1.79	5.7
Rockford	1.23	7.4
Springfield	2.30	11.7
Fort Wayne	1.69	4.9
South Bend	1.77	8.1
Indianapolis	1.80	5.7
Terre Haute	1.99	3.7
Cedar Rapids	1.45	1.4
Des Moines	2.71	12.3
Dubuque	1.72	5.1
Sioux City	2.38	11.8
Waterloo	2.54	11.1
Kalamazoo	2.40	8.3
Detroit	1.31	6.6
Green Bay	1.76	4.0
Madison	2.25	9.8
Racine	1.62	5.5
Milwaukee	2.66	13.2
a	1.30	5.8
a	2.21	9.0
a	2.11	15.4
a	2.06	11.0
a	2.76	9.1
a	1.53	6.1
a	1.42	5.7
a	2.25	12.6
a	2.03	10.2
a	1.63	6.1

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits. Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.

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TABLE 51

WEIGHTED AVERAGE INTEREST RATES PAID ON INSURED SAVINGS
AND INCREASE IN INSURED SAVINGS
1956

<u>Metropolitan Area</u>	(1) <u>Weighted Average Interest Rate on Insured Savings December 31, 1956</u>	(2) <u>Increase in Savings in Insured Banks of Savings and Loan Associations 1956</u>
Champaign-Urbana	2.63%	11.9%
Decatur	2.57	24.3
Peoria	2.73	9.7
Quad Cities	1.87	3.5
Rockford	1.67	7.7
Springfield	2.41	15.6
Chicago	2.50	10.1
Fort Wayne	2.16	5.6
South Bend	2.21	6.3
Indianapolis	2.43	8.0
Terre Haute	2.40	7.8
Cedar Rapids	2.24	5.3
Des Moines	2.76	8.4
Dubuque	1.90	4.0
Sioux City	2.43	9.5
Waterloo	2.60	7.5
Kalamazoo	2.58	10.6
Detroit	1.42	24.3
Green Bay	2.23	8.2
Madison	2.35	8.6
Racine	2.02	7.7
Milwaukee	2.80	10.0
a	2.53	9.8
a	2.73	13.2
a	2.19	7.3
a	1.35	3.4
a	2.14	7.3
a	2.43	8.7
a	2.76	5.9
a	2.54	22.3
a	2.57	9.8
a	2.35	12.2

^a Metropolitan area is not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.
Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 52

THE INTEREST RATE PAID ON INSURED SAVINGS AND
INCREASES IN INSURED SAVINGS
1957

<u>Metropolitan Area</u>	<u>Weighted Average Interest Rate On Insured Savings December 31, 1957</u>	<u>Increase in Insured Savings^a 1957</u>
Champaign-Urbana	2.96%	24.7%
Decatur	2.65	17.3
Peoria	3.17	12.9
Quad Cities	2.36	1.6
Rockford	1.79	6.1
Springfield	3.02	17.5
Chicago	2.67	11.4
Fort Wayne	2.37	6.3
South Bend	2.38	9.3
Indianapolis	2.52	7.1
Terre Haute	2.46	6.6
Cedar Rapids	2.26	6.3
Des Moines	3.34	13.2
Dubuque	2.13	-5
Sioux City	2.97	13.3
Waterloo	3.09	10.1
Kalamazoo	2.73	9.3
Detroit	1.74	4.1
Green Bay	2.29	5.4
Madison	3.01	13.5
Racine	2.21	6.3
Milwaukee	3.46	13.5
b	2.40	8.3
b	3.04	27.1
b	3.10	18.5
b	3.21	13.5
b	2.31	4.5
b	3.15	5.1
b	2.83	9.9
b	2.53	9.9
b	2.26	8.1
b	2.44	6.0

^a Insured savings include savings deposits in insured commercial banks and share capital in insured savings and loan associations.

^b Metropolitan area is not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

Federal Home Loan Banks of Chicago, Des Moines and Indianapolis.

TABLE 53

THE INTEREST RATE PAID ON INSURED SAVINGS AND THE AVAILABILITY
OF INSURED SAVINGS OFFICES
1956

<u>Metropolitan Area</u>	(1) <u>Svgs. and Loan Assn. and Bank offices per 10,000 pop., Dec. 31, 1956</u>	(2) <u>Weighted average in- terest rate on insured svgs., Dec. 31, 1956</u>
Champaign-Urbana	1.59	2.63 %
Decatur	.81	2.57
Peoria	1.32	2.73
Quad Cities	.87	1.87
Rockford	.41	1.67
Springfield	1.18	2.41
Chicago	.76	2.50
Fort Wayne	.82	2.16
South Bend	1.23	2.21
Indianapolis	1.41	2.43
Terre Haute	1.65	2.40
Cedar Rapids	.89	2.24
Des Moines	.87	2.76
Dubuque	.68	1.90
Sioux City	1.27	2.43
Waterloo	1.11	2.60
Kalamazoo	1.57	2.58
Detroit	.89	1.42
Green Bay	1.16	2.23
Madison	1.27	2.35
Racine	1.30	2.02
Milwaukee	1.12	2.80
a	.66	2.53
a	1.00	2.73
a	1.14	2.19
a	.54	1.35
a	.69	2.14
a	1.00	2.43
a	.86	2.76
a	1.12	2.54
a	1.24	2.57
a	1.40	2.35

^aMetropolitan area is not named to preserve the identity of individual banks.

SOURCES: Federal Reserve Bank of Chicago, survey of metropolitan area savings deposits.
Federal Home Loan Banks of Chicago, Des Moines, and Indianapolis.

TABLE 54

SELECTED DATA ON CHICAGO SAVINGS
(December 31, 1956)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Areas	Share Capital Savings Deposits Per Capita	Share Capital And Savings Deposits Per Capita	Share Capital As Per Cent of Total of Column 3	Interest Rate on Share Capital	Interest Rate on Savings Deposits	Spread Between Interest Rates on Savings Deposits And Share Capital	Interest Rate on Insured ^a Savings	Savings Offices Per 10,000 Inhabi- tants
	-----	-----	-----	-----	-----	-----	-----	-----
	----- (dollars) -----	----- (dollars) -----				(per cent)		
Suburban:								
Western Cook County	479	458	51.1	3.10	1.92	1.18	2.52	1.42
Cicero-Berwyn Fox River Valley	1,940	291	87.0	3.49	1.19	2.30	3.19	1.94
Du Page County	609	390	60.9	3.32	1.94	1.38	2.78	.97
Far Southwest	285	495	36.5	3.10	1.85	1.25	2.31	2.44
Southern Cook County	393	247	61.4	3.00	1.42	1.58	2.39	.58
North-Northwest	328	295	52.6	3.03	1.18	1.85	2.15	1.16
North Shore	447	536	45.7	3.05	2.05	1.00	2.51	1.51
Southeast (Indiana)	302	626	32.5	3.00	2.00	1.00	2.33	.95
	394	303	56.6	3.06	1.24	1.82	2.27	1.04

TABLE 54 (continued)
 SELECTED DATA ON CHICAGO SAVINGS
 (December 31, 1956)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Areas	Share Capital Per	Savings Deposits Per	Share Capital And Savings Deposits Per	Share Capital As Per Cent of Total of Column 3	Interest Rate on Share Capital	Interest Rate on Savings Deposits	Spread Between Interest Rates on Savings Deposits And Share Capital	Savings Offices Per 10,000 Inhabitants
	Capita	Capita	Capita	Capita	Capita	Capita	Capita	Capita
	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)
City:								
North Side	186	517	703	26.4	2.99	1.94	1.05	2.22
Northwest Side	463	293	756	61.3	3.00	2.03	.97	2.62
South Side	180	280	460	39.2	3.04	1.77	1.27	2.27
Southwest Side	1,130	216	1,346	84.0	3.08	1.87	1.21	2.89
West Side	273	377	650	42.1	3.03	1.86	1.17	2.36
Loop	471,000	1,130,000	1,601,000	29.4	3.01	2.01	1.00	2.30
								160.00

^a Insured savings include savings deposits in insured commercial banks and share capital in insured savings and loan associations.

SOURCES: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.
 Federal Home Loan Bank of Chicago.

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TABLE 55

SELECTED DATA ON SAVINGS DEPOSITS IN THE CHICAGO METROPOLITAN AREA

	(1) Average Savings Deposit Jan. 1957	(2) Number of Accounts per 1,000 Population Jan. 1957	(3) Inflow of Savings Deposits 1956 (per \$100 bal.)	Outflow of Savings Deposits 1956 (per \$100 bal.)	Net Increase in Savings Deposits 1956 (per \$100 bal.)
Suburban:					
Western Cook Co.	\$ 947	351	\$72.09	\$66.27	\$ 5.82
Cicero-Berwyn	952	302	58.04	60.25	-2.21
Fox River Valley	876	445	61.81	52.69	9.12
Du Page County	720	610	84.65	74.26	10.39
Far Southwest	1,068	217	55.91	48.54	7.37
Southern Cook Co.	685	319	72.67	68.26	4.41
North Northwest	808	453	87.92	73.74	14.18
North Shore	1,105	518	66.41	60.49	5.92
Southeast (Indiana)	803	375	59.05	57.55	1.50
City:					
North Side	1,330	377	63.40	58.16	5.24
Northwest Side	1,235	236	65.54	57.13	8.41
South Side	1,005	226	56.05	54.91	1.14
Southwest Side	1,140	187	55.11	51.18	3.93
West Side	1,211	307	54.28	52.13	2.15
Loop	1,499	743,100	35.51	34.59	.92

SOURCE: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

TABLE 56

SELECTED DATA ON CHICAGO SAVINGS
1957

Areas	(1) Interest Rate on Savings Deposits 12/31/57	(2) Increase in Interest Rate on Savings Deposits	(3) Inflow of Savings Deposits	(4) Outflow of Savings Deposits	(5) Increase or Decrease in Savings Deposits	(6) Change in Inflow of Savings Deposits 1956-1957	(7) Change in Savings Deposit Growth 1956-1957
Suburban:							
Western Cook Co.	1.92%	0%	\$69.88	\$61.84	\$ 8.04	\$ -2.21	\$ 2.20
Cicero-Berwyn	1.23	.04	58.58	56.96	1.73	.64	3.93
Fox River Valley	1.95	.01	55.51	49.85	5.66	-6.30	-3.46
Du Page Co.	2.00	.15	79.50	66.57	12.93	-5.15	2.54
Far Southwest	2.00	.58	50.68	43.81	6.87	-5.23	- .50
Southern Cook Co.	1.86	.68	77.21	64.57	12.64	4.54	8.23
North-Northwest	2.08	.03	86.18	73.71	12.47	-1.74	-1.71
North Shore	2.00	0	63.17	57.05	6.12	-3.24	.20
Southeast (Indiana)	1.41	.17	59.06	55.31	3.75	.01	2.25
City:							
North Side	1.96	.02	58.95	53.38	5.57	-2.45	.33
Northwest Side	2.03	0	64.00	54.08	9.92	-1.54	1.51
South Side	1.93	.16	54.65	52.09	2.56	-.46	1.37
Southwest Side	1.88	.01	53.54	48.50	5.04	-1.57	1.11
West Side	1.93	.07	53.07	51.02	2.05	-1.21	-.10
Loop	2.04	.03	35.33	33.05	2.27	-.18	1.35

SOURCE: Federal Reserve Bank of Chicago. The data are based on an unpublished survey of metropolitan area savings deposits.

APPENDIX E

AMERICAN BANKERS ASSOCIATION SURVEY OF
METHODS USED TO COMPUTE INTEREST ON SAVINGS DEPOSITS

1. Used by 31.5% of banks.
Effective rate .89% (median)

Interest commences first of the month following a deposit, and on amounts withdrawn ceases at the beginning of the semi-annual period in which withdrawn, withdrawals being charged against the beginning balance of the period or first deposits.

2. Used by 20.0% of banks.
Effective rate .87% (median)

Interest is computed on lowest balance for six months' interest period. Interest commences at the beginning of the semi-annual period. Funds must be on deposit for full six months.

3. Used by 13.5% of banks.
Effective rate .90% (median)

Same as No. 1, except that withdrawals are charged against the most recent deposits of the current interest period, if any.

4. Used by 11.5% of banks.
Effective rate .89% (median)

Interest commences at the beginning of the next quarter following a deposit, and on amounts withdrawn ceases at the beginning of the quarter in which withdrawn, withdrawals being charged to most recent deposits of quarterly period, if any.

5. Used by 10.0% of banks.
Effective rate .94% (median)

Interest is computed on lowest monthly balance. Interest commences first of the month following a deposit, and on amounts withdrawn ceases on the first of the month in which withdrawn.

6. Used by 3.0% of banks.
Effective rate .85% (median)

Interest commences at the beginning of the next quarter following a deposit, and on amounts withdrawn ceases at the beginning of the semi-annual period in which withdrawn,

withdrawals being charged against most recent deposits
of period, if any.

Source: American Bankers Association, Methods and Procedures
in Computing Interest on Savings Deposits, 1953, p. 4.
Based on a 1952 survey of A.B.A. members.

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2. The second part of the document focuses on the role of internal controls and audits in ensuring the integrity of the financial system. It states that internal controls are designed to prevent errors and fraud, while audits provide an independent assessment of the system's effectiveness. The text notes that a strong internal control system is crucial for building trust and confidence among stakeholders, as it demonstrates a commitment to high standards of governance and ethical conduct.

3. The third part of the document addresses the challenges faced by organizations in implementing effective record-keeping and internal control systems. It identifies several key challenges, including limited resources, lack of training, and outdated technology. The text suggests that organizations should adopt a proactive approach to address these challenges, by investing in staff development, upgrading infrastructure, and implementing robust risk management frameworks. It also emphasizes the importance of fostering a culture of transparency and accountability, where employees are encouraged to report any irregularities or concerns without fear of retaliation.

4. The fourth part of the document provides a summary of the key findings and recommendations. It reiterates the importance of maintaining accurate records and implementing strong internal controls, and encourages organizations to take immediate action to address the identified challenges. The text concludes by stating that a commitment to transparency and accountability is not only a moral imperative but also a practical necessity for the long-term success and sustainability of any organization.

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4. The fourth part of the document discusses the application of the findings to real-world situations. It mentions how the results can be used to inform policy decisions, improve organizational performance, and address social issues. The text also notes that the findings should be communicated effectively to the relevant stakeholders to ensure their understanding and acceptance.

5. The fifth part of the document discusses the challenges and limitations of the research process. It mentions the potential for bias, the difficulty of obtaining accurate data, and the complexity of interpreting results. The text also discusses the importance of being transparent about the limitations and uncertainties of the research.

6. The sixth part of the document discusses the future directions of the research. It mentions the need for further studies to explore the issues identified in the current research and to develop more effective methods and tools for data collection and analysis. The text also discusses the importance of ongoing monitoring and evaluation to ensure the continued relevance and effectiveness of the research.

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