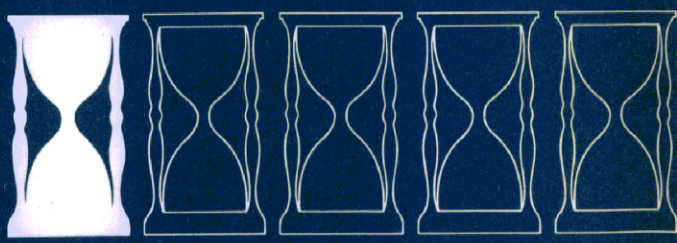
TIME DEPOSITS IN NEW ENGLAND

FEDERAL RESERVE BANK OF BOSTON

1962 ANNUAL REPORT



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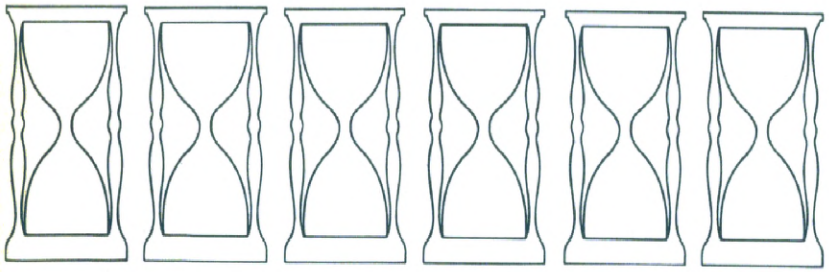

Time Deposits in New England

To the Member Banks of the Federal Reserve Bank of Boston:

It is a pleasure to send you the 1962 Annual Report of the Federal Reserve Bank of Boston.

This year, as in the past, we devote much of our Report to an analysis of an important phase of the New England economy.

One of the most significant developments in the nation's recent banking history is the phenomenal growth of the savings and time deposits held by the commercial banking system. This growth has provided the additional funds that banks need to serve their customers and assist in the continuing expansion of the national and New England economies. But the growth has radically altered the deposit structure of commercial banking and confronted the banks with difficult policy problems in the field of loans and investments.

The following pages show how time and savings deposits have evolved historically, and how competitive forces have molded the characteristics of these deposits in New England. The case for time deposits at commercial banks is presented, along with a detailed description of time deposit banking in each of the region's major banking areas. The appendix outlines the component instruments of the time and savings function, and shows how a functional cost program can clarify the profitability of these deposits.

During 1962 the Reserve Bank continued its efforts to increase the efficiency of its operations while broadening its services to the region. The final pages present a measure of our success. Our Directors join me in extending gratitude to our officers and staff for their continued dedication, and to New England's bankers and other business leaders for their generous cooperation.

February 15, 1963

George H. Ellis
President

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Foreword

During 1962 total time deposits in the nation's commercial banks increased by some $15 billion. This gain of more than 18 percent over 1961 was the greatest growth recorded for any year since the end of World War II. The increase followed several years of controversy and action in a continuing competition for time deposits between commercial banks on the one hand and savings banks and a variety of nonbank financial institutions on the other.

The 1962 expansion of time deposits became possible when, on the first of the year, the Federal Reserve System and the Federal Deposit Insurance Corporation jointly raised the ceilings on the interest rates which commercial banks may pay on time deposits. It was somewhat assisted later in the year when the Reserve System's Board of Governors lowered the reserve requirement on time deposits held in member banks, and an act of Congress exempted certain foreign time deposits from Regulation Q. And even certain of the nation's economic circumstances contributed to the time deposit gain—the sluggishness of the business advance, the relative position and stability of rates of competing investment opportunities, the broadening of the market for negotiable certificates of deposit.

At the end of 1962 the commercial banking system held $97 billion of time deposits. New England's share of the national total approximated $3 billion. For both the nation and the region, these figures set all time highs.

The drive for time deposits so successfully conducted during 1962 began nearly a decade earlier. It grew out of a persistent dilemma which first became apparent in the early 1950's — the commercial banks' steadily increasing need for loanable funds with which to service their customers, and their inability to secure these funds by significantly expanding their demand deposits. Next to demand deposits, time deposits are the largest sources of funds for commercial banks.

The banks' counterbalancing campaign for time deposits accelerated throughout the second half of the 1950's. It was given a special assist at the end of 1956 when the Reserve System and the FDIC granted the first upward revision in 20 years in the ceilings established on time deposit interest rates.

In 1957 time deposits in the nation's commercial banks were more than triple their 1940 levels. Over that period the proportion of time to total deposits rose from 24 to 28 percent. Time deposit growth continued to gather speed during the next five years, ending with the above-mentioned sprint of 1962. In these five years the volume of deposits doubled and the ratio of time to total deposits rose to about 38 percent. The performance of New England's banks paralleled that of the nation.

Today's competition for time deposits is probably more intense than in any past period. The direct competitors include more than 13,000 commercial banks, 500 mutual savings banks, 6,000 savings and loan and cooperative banks, and 21,000 credit unions. The interbank competition follows a generally common pattern throughout most of the country. In New England and the Middle Atlantic seaboard, however, — traditional "mutual territory" — commercial banks must reckon with the special competitive pressures exerted by savings banks. Furthermore, competition among banks has greatly expanded geographically, sometimes becoming nationwide. For certain kinds of time deposits it even comes from abroad, where rates on time deposits have frequently exceeded those of the United States. Thus no hard and fast lines can be drawn around geographic markets.

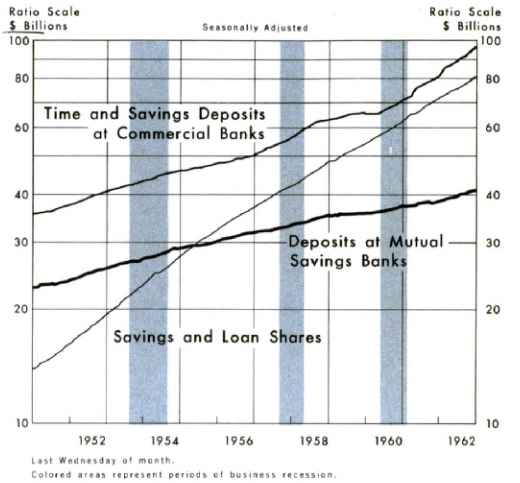
In addition to the direct competition which the above financial institutions carry on among themselves, centralized and integrated investment markets offer further competition with a variety of attractive investment forms such as U.S. government securities, mutual funds, equity shares, life insurance and pension funds.

Time deposits at commercial banks have experienced periods of rapid growth in the past, particularly in the 1920's; but in those days the competition was confined chiefly to a much larger number of commercial banks and, in some areas, between them and mutuals. It did not cross regional lines to an appreciable extent. Another similarity between the 1920's and the 1950's is that in both periods time deposits grew much more rapidly than demand deposits — three times as fast in the 1920's and twice as fast in the 1950's.

The structure of the time deposit total has also undergone change. Around the turn of the century these deposits were said to be largely the simple investment accounts of small savers and possessed a relatively permanent character. During the 1920's however, an increasing portion of the deposits were the liquidity or contingency reserves of individuals and the funds of corporations and other large holders, which were available for short or medium term investment. This characteristic was carried still further during the 1950's.

These elements of change and growth, and particularly the sharply altered ratio of time to total deposits, confront comercial banks with difficult problems in the fields of loans and investments. To cover the accelerated inflow of interest-bearing time deposits, commercial banks are seeking higher-yielding long term investments such as mortgages and state and local government securities. The volume of mortgages acquired by the

Public Holdings of Selected Liquid Assets



banks reached a postwar high in 1962, and the year also set a new record for the addition of state and local government securities to the banks' portfolios. In order to equalize competitive positions with mutual savings banks and savings and loan associations, commercial banks are pressing for reform of federal tax laws. They also argue for further reduction in or removal of time deposit reserve requirements, or the imposition of similar requirements on their competitors.

As the controversy continues over the relationships and regulation of commercial and savings banks and nonbank financial institutions, assorted study groups are offering a broad range of suggested changes in laws relating to time deposits. These groups include the President's Committee on Financial Institutions (the Heller Committee), the Commission on Money and Credit, and the Advisory Committee on Banking (the Saxon Committee). Their recommendations range from the removal of interest rate ceilings and reserve requirements on time deposits in commercial banks

to the imposition of both on savings accounts in other thrift institutions. Among more radical suggestions offered by others is one which would prohibit acceptance of time deposits by commercial banks, leaving all forms of savings to specialized savings institutions.

The following pages examine the matter of time deposits from a number of viewpoints — their historical development, their current situation and profitability — with special emphasis on conditions in New England. The regional picture varies considerably from state to state, and even within states, according to such factors as the size and location of banks, the nature, number and proximity of other thrift institutions, the extent of branch banking and the reliance placed upon features other than rates.

The advantages and disadvantages accruing to banks from time deposits are also studied. It is demonstrated that these are high-cost funds and that careful consideration needs to be given in each specific situation as to whether, and how, to compete for this type of business. Some of the more technical aspects of the profitability of time deposits are discussed in the appendix.

In describing the development, nature, and behavior of time and savings deposits the term "time deposits" will generally be used to include all non-demand deposits and will correspond to the caption shown on the Call Report. Where the discussion refers to "savings deposits" proper qualification will be made and the term will generally be limited to deposits of individuals and non-profit corporations as defined in Regulation Q. In the detailed analysis of the current situation in New England in part two of this study, the references are to "savings deposits" only unless otherwise indicated. Further discussion of definitions will be found on page 50.

The Story of Time Deposits

Although commercial banks had become accepted institutions in the United States soon after 1800, they differed markedly from the commercial banks of our time. They were not, in the beginning, essentially banks of deposit but rather banks of note issue. Their liabilities consisted largely of bank notes and their assets of discounted customers' notes. Their limited deposits were mainly the accounts of a few large merchants and commercial enterprises.

The attitude of the early commercial bank toward deposits is perhaps typified by the Massachusetts Bank, which was chartered in Boston in 1784 and was the first independent joint stock bank established in the new nation. When it began operations the bank accepted deposits "free of charge." Within 18 months, however, its stockholders voted a change of policy which established a charge of .1 percent on all deposits. Five years later this ruling was repealed and once again the bank accepted deposits without charge. Along with this change it was voted that only "large" deposits would be accepted and only "large" checks would be paid. Although this latter regulation was soon rescinded, it is obvious from the records that in the beginning the Massachusetts Bank attached much less importance to deposits than to its own capital and its bank note issue.

This general attitude toward deposits continued until after 1850 when deposit banking clearly began to supersede note issue in importance. According to available records, in 1820 the nation's commercial banks had outstanding $40.6 million of circulating notes and $31.2 million of deposits; in 1829 the figures were $48.2 million in notes and $40.7 million in deposits. These deposits, to a large extent, were governmental deposits, the deposits of country banks in city correspondents, those of such other financial institutions as savings

banks and life insurance companies and of large merchants and other businessmen. Most banks were not interested in and refused to accept deposits of relatively small size.

Early Savings Institutions

In such a scheme of things there was no provision for wage earners and others of modest means who wished to save for emergencies, for the purchase of homes and other costly goods, for old age security, and similar purposes. The nonprofit mutual savings bank was created to meet this need, and savings deposits in the United States originated with this institution. Its creation was delayed, however, until there developed a distinct and substantial number of wage earners who had no adequate means of protecting and investing their savings.

By the early 1800's such a group of wage earners had grown up in New England. Shipyards, sail lofts, ropewalks and other manufacturing enterprises had become common along the region's waterfront. The importance of these coastal industries to the early development of mutual savings banks is evident from the fact that the first such banks in Massachusetts were founded at important ports — Boston, Salem and Newburyport.

In 1816 a group of Bostonians incorporated the first mutual savings bank in the United States — The Provident Institution for Savings in the Town of Boston — although a similar bank began operations as a voluntary association without a charter earlier in the year in Philadelphia. Both these institutions, and others which followed, were patterned on the "Parish Bank" established in Scotland in 1810 by the Reverend Henry Duncan.

These early savings banks were philanthropic in purpose, aimed at helping improve the welfare of the common man by encouraging frugality and thrift and providing safe depositories for small savings. Their creation was brought about by civic leaders willing to assume the responsibilities of protecting and investing workers' savings.

The Provident bank, which at first was open only on Wednesdays, accepted deposits as low as $1 and agreed to pay interest of 4 percent on deposit totals of $5 or more. Total deposits were limited to $1,000 per person. So successful was the Provident that less than two years after its opening the trustees, who served without "emolument" and only "to promote the interest of the town," sought to fix a limit of $300 thousand as the maximum of its deposits. They voted that no deposits should be received from any corporate bodies and appointed a committee to determine if the bank's rapid growth had resulted from deposits by others than the "frugal poor" for whom the institution was designed.

The case of the Provident illustrates a mutuality of interest between commercial and savings banks which still persists in New England. The Provident's first president was also president of the Massachusetts Bank. And on the Provident's first board of trustees, in addition to the president, were a founder and three current directors of the Massachusetts Bank.

By the middle of the 19th century several hundred mutual savings banks had been established throughout the industrial Northeast, and some of their names suggest the humble character of their early depositors — Penny, Five Cent, Dime, Home, Seamans, Mechanics, Peoples. From 1816 to 1890 mutuals grew greatly both in number and resources. The 10 banks in existence in 1820 had

deposits of little more than $1 million; the 637 institutions of 1890 held deposits of $1.3 billion. Although deposits continued to expand steadily until 1930 the number of mutual banks increased very little after 1890. Mutuals made no significant progress outside New England and the Middle Atlantic seaboard for reasons to be discussed later. Meanwhile, the guaranty bank — a hybrid of mutual and stock savings forms — was developed in New Hampshire. Such institutions accept both regular and "special" deposits: the latter are, in reality, capital stock, and excess of earnings above the amount required for savings depositors is available to the special depositors. Of the 514 mutuals in 1961 only 26 are found in states outside the Northeast. The 19th century was decidedly a "clear field" for mutuals, and competition for savings deposits was largely confined within their ranks.

In the public and legislative minds mutual savings banks still retain much of their benevolent aspect. They continue to be favored by tax exemptions and other special considerations despite their operation today as straightforward business establishments with dividends going to depositors rather than stockholders.

The investments permitted to savings banks are restricted to the "legal list" and guided by the old investment maxim of safety, yield and liquidity. Massachusetts was the first of the states to restrict by law the field of savings bank investments. The statute of 1834 limited such investments to public funds of the United States, of Massachusetts and of counties, cities and towns therein; to stocks of any bank incorporated under a law of Massachusetts or the United States; to loans with a pledge of security of any of the foregoing investments; and to loans on real estate and personal security. Over the years, however, the Massachusetts "list" and those of other states have been broadened to include selected corporate bonds and bank and insurance stocks. After World War II most states sanctioned the acquisition of federally-aided (FHA and VA) mortgages on out-of-state property. In the mid-50's some states legalized lending against lease and mortgage collateral, thus allowing more flexibility in making investments in a wide range of commercial and industrial properties.

The mutuality of interest first shown in the relationship of the Massachusetts Bank and the Provident Institution for Savings was broadened by banking laws enacted after 1834 not only in Massachusetts but other states as well. The effect of these laws encouraged mutual savings banks to acquire substantial amounts of the common stock of commercial banks, thus supplying in many instances part of the capital needed for commercial bank expansion. In a 1958 Boston Reserve Bank survey of Massachusetts commercial banks, 78.5 percent of the responding banks reported a portion of their stock owned by competing mutuals. While the average portion of stock owned was 16 percent, eight commercial banks reported mutual banks owned 30 percent or more of the stock, 24 banks reported mutual ownership of 20 to 30 percent of their stock, and 19 banks reported that 10 to 20 percent of their stock was owned by mutuals. Evidence is lacking that this ownership limits competition for time deposits either among commercial banks or between commercial and savings banks.

In 1831 a second form of thrift institution, the building and loan association, was organized in Frankford, Pennsylvania. Like the mutual savings bank, the association was patterned upon a British model which pooled the savings of members who took turns in borrowing funds for homebuilding

purposes. The early associations were all voluntary and unincorporated, and there was no public supervision of their activities. In later years these institutions became known as savings and loan associations and opened membership to non-borrowers who participated in earnings in proportion to the accumulated value of their "accounts" or shares. New York was the first state to enact specific measures regulating associations, requiring annual reports of condition beginning in 1875. Two years later Massachusetts permitted the incorporation of similar thrift institutions which are now called cooperative banks. There were 168 such banks in Massachusetts in 1963.

Savings and Loan Growth

There are no adequate statistics covering the first 60 years of the savings and loan business. The first comprehensive government survey was made in 1893 and reported 5,838 associations with a total membership of some 1.75 million and assets of $529 million. These figures include perhaps 250 associations organized on a national rather than a local basis. Most of the "nationals" were liquidated during the depression of 1893-97, "victims of their own immoderate expenses, questionable loans and poorly controlled operations." Their failures engendered a public distrust of associations that lasted into the early 1900's.

As public confidence was rebuilt in the years before and after World War I, the number of associations expanded steadily. Growth was particularly rapid during the 1920's and 1950's, as indicated in Table I.

Federal savings and loan associations were authorized as part of the Home Owners Loan Act of 1933 and today about 30 percent of the associations and more than 50 percent of total assets are under federal charter.

During the 1950's association assets increased more rapidly than those of any other type of saving institution. This was the result of aggressive campaigns for new accounts and increased dividends derived from mortgages associated with the high level of real estate construction in the post-war period. Today, the primary areas of association activity are the Middle and South Atlantic, the East North Central and Pacific states.

It is important to note again that both mutual savings banks and savings and loan associations were nonprofit in origin and were owned not by stockholders but by the savers themselves. Savings bank policies were devised and their operations supervised by public-spirited directors or trustees who served in the interest of the savers either without pay or on a modest fee basis. Savings and loan directors were elected from among members themselves.

During the first three-quarters of the 19th century there was virtually no need for the establishment of mutual savings banks in the South and West. It was not until after the Civil War that the Middle West turned strongly toward industrialization. The South was still largely without industry at the turn of the century. In predominantly agricultural areas savings are usually invested in land, stock and equipment.

When the West and South eventually accumulated surplus funds, their already established commercial banks were available for receiving deposits. In common with the commercial banks in New England, whose early business had been to discount commercial paper and issue circulating currency, the banks in the West and South in the post Civil War period saw their note issue function

steadily decline in importance in comparison with deposit banking. It was natural, therefore, that southern and western commercial banks were prepared to receive savings as soon as they appeared. In addition, there arose in these sections a type of institution called the stock savings bank. It differed from commercial banks in name only since it usually received checking as well as savings accounts.

By 1896 mutual savings banks held about 70 percent of the nation's time and savings deposits as against only about 27 percent in state banks and trust companies and just under 3 percent in national banks. It was not until after 1900 that commercial banks began seriously challenging savings banks for the savings of individuals and nonprofit organizations.

Time Deposits at Commercial Banks

The records of time deposits in commercial banks, however, date back almost to the beginning of the nation's commercial bank history. Early commercial banking statistics do not distinguish deposits by type — that is, demand as contrasted with time — but it is certain that early banks accepted both types from merchants and other businessmen. But until the latter part of the 1800's time deposits at commercial banks were seldom "pure" savings in the mutual savings sense — they somewhat resembled that portion of today's time deposits made by businessmen or large investors with temporarily surplus funds.

As has been indicated, time deposits constituted but a small proportion of total commercial bank deposits until the closing years of the 19th century. Up to the time of the Civil War, bank notes rather than checks were the chief means of payment. As a result deposits in banks outside commercial and money centers were generally stable and there was no necessity for distinguishing between the two classes of deposits. The practice of paying interest on both demand deposits and demand certificates of deposit made the distinction far less significant than it is today. And banking legislation, by failing to grant express powers, also made it difficult for some groups of banks to develop time deposit business.

The passage in 1863 of the National Bank Act marked the beginning of the dual banking system in the United States and established a national as well as the state regulatory bodies, with each supervising its own group of banks. The Act made no distinction between demand and time deposits with regard to the new national banks. Although doubt existed about the right of national banks to receive time deposits, the banks came to accept them as the years passed.

New Hampshire was the first state to draw legal distinction between time and demand deposits. In 1874 the legislature imposed reserve requirements of 5 percent on time deposits and 15 percent on demand deposits. Other states followed but so slowly that by 1914 only 11 states had such laws.

Meanwhile, periodic inquiries were made of the Comptroller regarding the legality of time deposits. In 1903 he ruled that there appeared to be nothing in the National Bank Act which either authorized or prohibited the operation of a savings department by a national bank. Many banks paid interest on deposits, in competition with mutuals and state banks, as evidenced by entries in depositors' pass books or by issue of certificates of deposit. Certificates were particularly popular in the Middle West and some parts of the South.

By 1913, when the Federal Reserve Act was passed, competition for these deposits was common among national banks as well as state banks and trust companies.

The Federal Reserve Act

Passage of the Federal Reserve Act greatly clarified a number of issues related to time deposits in commercial banks and stimulated time deposit growth. For the more than 7,500 national banks for which Reserve System membership was mandatory, the Act defined for the first time the nature of both demand and time deposits; it explicitly authorized the banks to receive time deposits; it ordered national banks throughout the 48 states to maintain separate classifications of demand and time deposits and it stipulated a lower level of required reserves on time than on demand deposits. It was silent regarding the payment of interest on both time and demand deposits. The act also granted limited power to national banks outside the three Central Reserve Cities to invest time deposits in farm, and subsequently residential, mortgages.

Considerable discussion and debate in the Congress had preceded the final enactment of the lower reserve requirement on time deposits. Early drafts of the Act had required the same reserve level for both classes of deposits, but eventually the lower level on time was agreed on as necessary in order to place national banks on a competitive footing with state banks operating under more liberal state legislation.

The Federal Reserve Act thus recognized the increasing importance of time deposits and provided a strong stimulus to national banks to expand service and compete in this area of banking. As noted elsewhere, those state legislatures which had made no specific provisions regarding time deposits soon at least matched the powers of state banks with those given to nationals. As a result the expansion of time deposits at commercial banks rapidly exceeded the growth of savings deposits at mutuals. By 1930 the percentage held by mutuals dropped to 31 from the 70 percent of 1896, while state banks held 40 and nationals 29 percent. And in 1930 savings and loan association accounts amounted to almost two-thirds the dollar volume of savings in mutual banks.

A broader question than that of the relative displacement of one form of savings institution by another involves the growth of commercial bank time deposits in the years following passage of the Reserve Act. To many observers that growth is not so remarkable as statistics at first suggest when prices or increases in national income are considered. After 1920 some savings which might have been expected to flow into banks were diverted by the expansion of instalment selling, by real estate development, by employee and other stock ownership plans, by the stock market and, more closely related, life insurance and savings and loan associations.

Despite this intense competition, the period from 1900 to 1930, particularly after 1914, saw a vast "institutionalization" of savings, with the savings dollars of individuals poured into banks, savings and loan associations and life insurance companies rather than into direct business ownership or ownership of mortgages. The ratio of the liquid savings of individuals to gross national product rose from 29 to 51 percent during these three decades.

In the first decade of the 1900's time deposits at commercial banks became the largest com-

ponent of total liquid savings. And in the period 1913 to 1930 they grew faster than total liquid savings, quadrupling over those years while mutual savings deposits little more than doubled. Savings and loan shares, however, expanded tremendously, much as they have in recent years. From 1913 to 1930 they showed a sevenfold rise. But even in 1930 they totaled less than $7 billion as compared to $20 billion for commercial time deposits and $9 billion for mutual savings deposits.

The relative growth of commercial bank time deposits was more rapid in New England than in the nation. It should be noted, however, that New England started from a smaller base because of the existence of so many mutual savings banks. In New England in 1913 time deposits were 5 percent of the nation's total, close to the region's 7 percent of the nation's population. By 1930 they had increased to 8 percent of the national aggregate. During this period commercial time deposits grew most rapidly in Connecticut, Massachusetts and New Hampshire, but despite this growth, by 1930 they had still failed to overtake mutual saving deposits in those states.

At the end of 1914 time deposits in the nation's commercial banks were 27 percent of total deposits. In the succeeding 16 years the expansion of time deposits was practically the same as demand deposits — $15.4 billion for demand and $15.5 billion for time — but by 1930 the ratio of time to total deposits had climbed to 40 percent.

Time Deposits, 1913-1930

The causes of the rapid growth in time deposits at commercial banks in the period 1913-1930, the rising proportion of these deposits to total deposits, and the failure of demand deposits to grow as rapidly during the 1920's have been widely debated by bankers, supervisory authorities and financial historians. There is no agreement as to a single cause, and different weights are assigned to the differing causes advanced by varying groups.

To a substantial degree, the increase in time deposits seems a genuine expansion of savings brought about through aggressive solicitation by an increasing number of commercial banks. These banks introduced new methods of soliciting savings and offered a variety of new services such as vacation clubs, Christmas savings, special investment accounts and other programs. Convenience of facilities — one stop banking — was also important, and the receipt of time deposits served as a feeder for other types of business.

Changes in definition of deposits also contributed to time deposit growth. Until 1914, legislation and bank practice in most states did not differentiate between time and demand deposits, but after the Federal Reserve Act the banking laws of many states were amended to distinguish between and carefully define these deposits.

A third stimulant was the growing practice of both corporations and individuals during the 1920's of shifting from demand to time such funds as were not immediately needed. Despite the higher interest costs, which were not wholly offset by lower reserve requirements, many banks accepted these deposit shifts as a means of holding accounts in the face of aggressive competition. Of course, the higher interest rate paid on time appealed to the depositor. Certain time deposits, open accounts and certificates of deposit thus really reflected non-savings, although they swelled total time accounts. In New England certificates of deposit were used almost exclusively by busi-

TABLE I | **TIME DEPOSITS IN ALL COMMERCIAL BANKS, MUTUAL SAVINGS BANK DEPOSITS AND SHARE ACCOUNTS OF SAVINGS AND LOAN ASSOCIATIONS, 1900-1962**

(Dollar amounts in millions, proportions in percent)

	1900	1913	1930	1933	1940	1951	1962
Commercial bank time deposits							
New England	$ 49	$ 246	$ 1,470	$ 1,073	$ 1,016	$ 1,897	$ 2,994
United States	$1,087	$4,925	$20,192	$11,734	$15,608	$36,801	$ 89,551
New England proportion	4.5	5.0	7.3	9.1	6.5	5.2	3.3
Mutual savings bank deposits							
New England	$ 932	$1,481	$ 3,303	$ 3,229	$ 3,438	$ 5,597	$ 11,116
United States	$2,129	$3,712	$ 9,088	$ 9,603	$10,605	$20,383	$ 39,573
New England proportion	43.8	39.9	36.3	33.6	32.4	27.5	28.1
Savings and loan share accounts							
New England	$ 33	$ 84	$ 552	$ 515	$ 593	$ 1,261	$ 3,415
United States	$ 422	$ 904	$ 6,583	$ 5,926	$ 4,862	$16,073	$ 74,790
New England proportion	7.8	9.3	8.4	8.7	12.2	7.8	4.6
Totals of above							
New England	$1,014	$1,811	$ 5,325	$ 4,816	$ 5,047	$ 8,755	$ 17,525
United States	$3,638	$9,541	$35,863	$27,263	$31,075	$73,257	$203,914
New England proportion	27.9	19.0	14.8	17.7	16.2	12.0	8.6
New England proportion of U. S. population	7.3	7.1	6.6	6.5	6.4	6.2	5.7

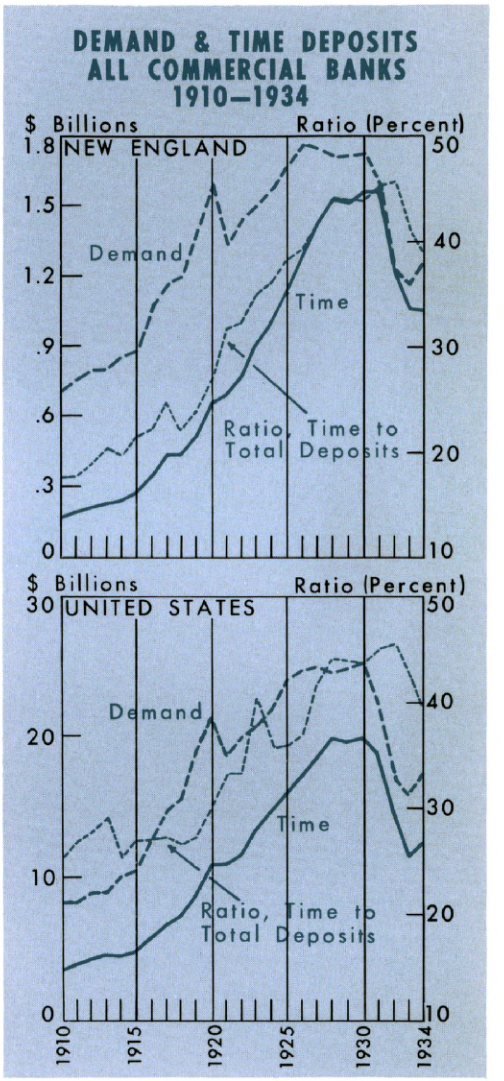
Note — Most of the above data is for June dates. Commercial bank time deposits exclude interbank and U.S. government deposits. Share accounts of savings and loan associations for New England partly estimated from 1900 to 1940.

ness firms and large investors as temporary investment havens. In certain areas of the West, however, the certificate of deposit was a preferred form of genuine savings.

The growth of time deposits was also fostered in some banks during the 1920's by permitting depositors to write checks against their time deposits as though they were demand accounts, a practice which had prevailed earlier in a limited form. The changing habits of individuals as they increasingly "institutionalized" their savings contributed to still further growth, as did corporate enterprises intent on shrinking idle demand balances. During the 1920's time deposits thus took on a kind of "intermediate quality" — intermediate between the orthodox, interest-bearing deposits of the mutual banks of the early period and the older, non-interest-bearing checking accounts. This intermediate quality was discussed by Frederic H. Curtiss, Federal Reserve Agent at the Boston Reserve Bank at the Fifth Annual Meeting of the Stockholders of the Federal Reserve Bank of Boston in 1927. He stated:

"I see evidence of a large amount of this increase in savings deposits coming from conversion of accounts which would ordinarily go into demand or commercial departments of banks. I refer especially to the large sums of money that are put either into savings deposits or certificates of deposits without definite maturity — deposits that are really subject to immediate demand and represent unemployed working capital.

"Of course all these deposits and certificates are supposedly subject to 30 days notice but you and I know that no bank would take advantage of this provision except under very unusual circumstances. This conversion has come about in order that the banks may have advantage of the 3 percent



reserve provision for time deposits instead of the higher reserve called for against demand deposits. These large deposits are competed for even more keenly than the smaller ones, and the fact that

such deposits may constitute a demand liability should be given most careful consideration by the management of every bank. I am led to believe that competition in this District, for this class of account, is fully as keen as, if not keener than, in other sections of the country. The only exception perhaps is the San Francisco District where, through rather unusual circumstances, there have been large increases in such accounts."

The forces affecting time deposits from 1913 to 1930 are obviously complex. In addition to those noted above, deposit growth was also influenced by such factors as employment levels, decisions to save or consume, the differing opportunities for investing savings, and the confidence of savers in banks. The increasing presence of commercial and investment funds in time accounts, however, makes generalizations about individual savings decidedly questionable.

The Interest Rate Controversy

The wisdom of paying interest on commercial bank deposits was vigorously debated in the United States for over a century. From the 1830's to the 1930's sporadic attempts were made to limit or to prohibit such payments. As the banking system developed, the practice of paying interest gradually became more widespread and included both demand and time deposits. But interest was paid on "deposits" before there were distinctions in the statutes between classes of deposits.

The earliest payments of interest on deposits was recorded in 1804 by the Farmers Bank of Maryland. Boston's Suffolk Bank in 1819 was willing to pay 6 percent on a $10 thousand deposit from the Provident Institution for Savings, and in 1820 the Union Bank in Boston agreed to pay 5 percent on a $50 thousand two-year deposit from the Provident. While the Massachusetts Bank seems generally to have opposed the payment of interest as a means of stimulating deposit growth, in 1825 it accepted from a life insurance company a $100 thousand deposit that was subject to 30 days notice of withdrawal and earned 4.5 percent.

Most observers couple the development of interest payment with the growth in bankers' balances kept in money centers like Boston and New York. Such payment appears to have been used by the more aggressive banks to meet competition rather than as a routine device. It was not always offered to all depositors, either bank or individual, but was used rather as an inducement to obtain new accounts or to attract an account from a rival. Interest payments were made more frequently to out-of-town depositors than to local customers, and trust companies and private banks seem to have followed the practice more often than incorporated banks. Some banks, however, refused to pay interest even before widespread opposition to interest payments developed.

By the early 1830's payment of interest by commercial banks was sufficiently common to provoke criticism and disapproval by some state regulatory authorities. This disapproval was based in part on the view that interest-bearing deposits were, in effect, "borrowed" funds, that banks ought rather to be operating with their own capital and note issues, and that payment of interest might force banks into lending on high risk assets in order to meet interest payments due their depositors. The bank commissioner of New York state criticized interest payments in his first report in 1831, and in 1834 Massachusetts enacted a law curtailing interest payments by commercial banks. Interpreting the law, Massachusetts banks argued

that it prohibited interest payments only on the time deposits of individuals and corporate enterprises other than banks, since it specifically permitted interest on deposits of the Commonwealth, on those of any Massachusetts savings institution, and on "all debts due to any bank from any other bank." After the crisis of 1837 the bank commissioners held that the law prohibited interest payments on all commercial bank deposits except for those specifically exempted. In 1842 the law was revised to add deposits by the city of Boston to the exemptions. In contrast, New Jersey in 1834 enacted a law allowing payment of 3 percent on deposits not withdrawn for 60 days. In 1854 Connecticut limited interest payments by commercial banks to a rate of 4 percent, but the law was soon repealed.

Prohibition and limitation of interest payments did not result in elimination of the practice, but it did reduce the intensity of competition substantially in some areas. By 1844 only 6 percent of commercial deposits in Massachusetts bore interest as against some 60 percent 10 years earlier. While the Massachusetts law was not formally discarded until after 1900, it was increasingly ignored after the 1850's. And of course its provisions did not apply to the national banks created in and after 1863 by the National Banking Act.

Nevertheless, the controversy over the payment of interest on deposits in commercial banks continued, both within the banking industry and among bank regulatory authorities. An early version of the National Banking Act would have forbidden interest payments by national banks, but this proposal was deleted from the Act as finally passed because of the belief that it would handicap national banks in their competition with state chartered banks. Subsequently a number of southern and western states set maximum interest rates by administrative ruling, the general objective being "to avoid ruinous competition between individual institutions such as to lead them to offer rates not justified by the regular yields on investments they can make."

In 1918 Governor W. P. G. Harding commented: "The Federal Reserve Board regrets exceedingly to learn of the disposition evidenced by banks in various sections of the country to increase rates of interest allowed on deposits. It is unfortunate that any bank or group of banks should undertake, especially at the present time, to increase deposits by offering unusual inducements in the way of interest, and it follows that any aggressive steps which may be taken by any bank to increase its deposits at the expense of other banks will doubtless be met by protective measures on the part of banks whose business is subjected to attack."

The arguments over interest payments usually intensified after financial crises, with such payments frequently cited as helping provoke the crises because they drained funds from country banks and encouraged concentration of balances in banks in the larger cities. Interest payments, in the opinion of many observers, also added to the investment problem of the banks since they were spurred to seek returns — frequently in an increased proportion of investments and collateral loans — sufficient to cover a growing interest burden. When a bank paid interest on both demand and time deposits the payments made increasingly large claims on gross operating income.

As commercial banks expanded their time deposit business, obviously their total interest payments also increased. During the 1920's such payments became the largest single expense item of most banks. This largely reflected the simple dollar

expansion of time deposits and their increased proportion of total deposits. But mounting interest costs also reflected higher rates paid on both demand and time deposits as well as some widening of the practice of paying interest on demand balances.

Interest Rates and Bank Costs in the 1920's

In New England in 1921 interest payments on deposits at System member banks consumed about one-third of gross operating earnings. This rose to 36 percent in 1926 and 39 percent in 1927 before leveling off at about 40 percent in 1929 and 1930. Time deposits during the late 1920's comprised about 45 percent of total deposits as compared with 33 percent at the beginning of the decade.

Keen competition among some of the largest banks for demand balances rather than for larger time deposit components resulted in a higher rate paid for demand deposits and consequently a heavier interest expense burden at those banks. In the late 1920's the larger Boston banks paid out about one-third of their gross operating income in the form of interest on demand balances — due to other banks and individual depositors — exclusive of additional interest on time deposits.

It was also generally true that the banks in the region which carried a large volume of time deposits had the lowest capitalizations. The proportion of capital funds to gross deposits fell steadily during the 1920's at heavy time deposit banks, and toward the end of the period amounted to between 10 and 12 percent for many banks in the District. The percentage of capital funds to deposits tended to rise as the proportion of time deposits declined at various groups of banks when classified by proportion of time deposits.

In general, banks with a large ratio of time to demand deposits held bonds in portfolio which yielded an average of 5.2 percent. In contrast, banks doing mainly commercial business received only 4.5 percent on their portfolio of securities investments. This suggests the possibility that the banks paying heavy interest on deposits needed higher yielding securities than the strictly commercial banks deemed desirable. Table II, which is based on Boston Reserve Bank income and expense studies for representative groups of its member banks, classified by ratio of time to demand deposits, clearly shows these developments.

Bank profit ratios during this period declined from their post-World War I highs and the spread between deposit rates paid by the banks and returns on loans and investments narrowed considerably before leveling off in the late 1920's — indicative of both "defensive" competition to hold position and "aggressive" competition to improve position. Rather than reduce interest rates, with the accompanying risk of deposit losses, some banks sought higher yields and risk assets such as mortgage loans and lower-rated corporate bonds; others raised rates and at the same time reached out for higher yielding assets. The experience of New England commercial banks in the 1920's was paralleled elsewhere in the nation.

There is no evidence that a high ratio of time to demand deposits and a heavy interest burden were primary factors in the commercial bank failures which characterized the 1920's. But certainly the combination of commercial and savings business in a single institution considerably complicated the problems of banks in periods of economic uncertainty and difficulty. In the late 1920's

TABLE II | **INTEREST RATES PAID ON DEPOSITS AT REPRESENTATIVE GROUPS OF MEMBER BANKS IN NEW ENGLAND 1927 and 1930**

(Banks Grouped According to Percentages of Time Deposits)

1927

	Boston Banks	Country Banks			
% Time to total deposits Typical bank in group	14% (7 banks)	under 25.1% 6% (38 banks)	25.1% to 50% 43% (38 banks)	over 50% 65% (43 banks)	Country totals Common figures (119 banks)
Rate of interest paid					
A. Balances due to domestic banks	2.0	1.5	1.5	1.1	1.4
B. Other demand balances	1.7	1.1	1.4	1.0	1.2
C. Time deposits	3.3	3.0	3.7	3.8	3.7
Total Interest paid on deposits as % of current income					
A. Balances due to domestic banks	5.7	1.4	1.1	.2	.7
B. Other demand balances	26.3	18.5	11.9	5.0	9.4
C. Time deposits	8.0	5.5	27.9	42.5	30.5
Total	40.0	25.4	40.9	47.7	40.6

1930

	Boston Banks	Country Banks			
% Time deposits to gross deposits typical bank in group	20% (8 banks)	under 25.1% 3% (57 banks)	25.1% to 50% 41% (61 banks)	over 50% 68% (106 banks)	Country totals Common figures (224 banks)
Rate of interest paid					
A. Balances due to domestic banks	1.7	2.0	2.0	1.9	2.0
B. Other demand balances	1.5	.9	1.1	.7	.9
C. On savings deposits	3.7	No Dept.	3.8	3.9	3.8
D. Other time deposits	3.3	2.9	2.6	1.8	2.3
Total Interest paid on deposits as % of current income					
A. Balances due to domestic banks	2.0	1.9	1.2	.2	.7
B. Individual demand deposits	20.1	13.9	10.7	4.6	8.7
C. Time deposits	11.6	2.0	25.3	43.4	30.5
Total	33.7	17.8	37.2	48.2	39.9

and early 1930's such a combination of business undoubtedly accentuated weaknesses — for example, high loan ratios, investment in mortgages and lower quality bonds, and inability to bring high interest expenses under control. Of course, a number of factors other than those associated with time deposit business contributed to the banking difficulties of the time. But when time deposits proved as volatile as demand deposits, it was difficult to liquidate readily the "slower" assets held against them. And as the general economic climate deteriorated, efforts at liquidation depressed asset prices and intensified price declines, thus diffusing the effects over wider and wider areas.

Protecting the Depositor

Between 1919 and 1929 time deposits in commercial banks increased by more than $10 billion while demand deposits increased by half that amount. This growth was accompanied by a rapid acceleration in the rate of bank failures, which worked a particular hardship on the savings depositor. Protests on his behalf claimed that he was entitled to preferential treatment over the demand depositor. It was argued that he usually had no knowledge as to the soundness of his bank and was unlikely to be aware of danger until it was too late for effective action. In crises the demand depositor frequently withdrew his funds by check through the clearing house while the time depositor stood in line at the teller's window or waited uneasily for 30 to 60 days. In case of liquidation the time depositor generally received less proportionately than the demand depositor, although his account was considered relatively more important to him than a demand account was to his business counterpart. This situation provoked the question of providing legal protection for the time depositor.

Methods of handling savings deposits in the commercial banking system had not become standardized at the close of the 19th century. In general, only the more progressive banks recorded time accounts in separate ledgers and grouped time open accounts and time certificates of deposits so that they could be readily distinguished from other classes of accounts if carried in the same ledger with checking accounts. No legal limit existed as to the amount the bank might receive from any one person. Complete departmentalization was generally absent and time funds were not segregated nor were they invested in special ways. General co-mingling of deposits and assets at commercial banks left savings open to all the risks of commercial banking.

The movement to provide special protection for savings depositors began in the 1890's. In 1891 New Hampshire required segregation of time deposits and investments. In 1893 Michigan prescribed separate investments for savings accounts. Further action followed the panic of 1907. Connecticut in 1907, Rhode Island and Massachusetts in 1908, and California and Texas in 1909 passed laws calling either for segregation of deposits and investments or for restrictions on investments similar to those required of mutual savings banks. California was the most stringent, requiring the bank to be completely departmentalized with assets segregated in each department and a separate capital and surplus assigned to each department. A somewhat similar plan was proposed to the National Monetary Commission in 1908 to be applied to national banks. A bill along these lines was introduced in Congress in 1909. And some of the early drafts of the Federal Reserve Act would have required segregation of assets and empowered the Reserve Board to prescribe investments for time deposits, but these provisions were eliminated from the Reserve Act as finally passed.

The need and means of protecting the savings depositor at commercial banks were debated intermittently between the end of World War I and the close of the 1920's. Discussion was stimulated by opinions expressed by the Comptroller of the Currency and by others at meetings of the savings bank section of the American Bankers Association. Views were also developed during Congressional hearings on legislation that would affect the investment powers of Reserve System member banks. In general, however, there was only passive interest in the matter. Country bankers as a whole opposed any change in regulations, and other commercial banking groups were divided in their opinion. Mutual savings bankers, as would be expected, usually favored restrictive action.

Bank Failures and New Legislation - The 1930's

As the depression became acute in the years immediately following 1929, the already high rate of commercial bank failures soared still more sharply. Over 5,000 banks had closed their doors in the nine years from 1921 to 1929. More than 9,000 others failed in the next four years alone. Time deposits of commercial banks fell by $8.2 billion or 41 percent from June 1929 to June 1933. In the same period demand deposits diminished by $9.7 billion or 33 percent, while deposits in mutual savings banks actually registered an increase. Failures were especially high in some parts of the nation among banks with a heavy proportion of time deposits. It is estimated that the loss to all depositors in banks suspended from 1921 to 1933 was in excess of $2 billion.

The fact that commercial bank time deposits proved more volatile than demand deposits in the banking crisis of the early 1930's shocked the banking community and provoked a nation-wide demand for bank regulation reform, especially with regard to protecting the small savings depositor. Legislative amendments to the Federal Reserve Act considered by the Congress in 1933 called for setting higher reserve requirements for time deposits, prohibiting time deposits in member banks, and investment of time deposits in specified segregated assets.

Opponents of these proposals argued that the adoption of any of them would seriously handicap member banks in competition with nonmember banks and other financial institutions. The Congress accordingly rejected all of them, and in the Banking Acts of 1933 and 1935 required the Board of Governors to:

1. Define savings, other time and demand deposits for regulatory purposes.
2. Limit and regulate the interest rates payable by member banks on savings and other time deposits, and prescribe rates on time deposits which would differ according to differing maturity dates.
3. Prohibit interest payments by member banks on demand deposits.
4. Regulate within specified limits the reserves required against both time and demand deposits in member banks.

The intent of Congress in limiting interest payments, according to Senator Carter Glass, was to prevent banks from competing for deposits so aggressively as to lead to unsound banking.

In 1933 the Congress created the Federal Deposit Insurance Corporation temporarily to protect both time and demand deposits. The insurance system thus established was made permanent by the Banking Act of 1935. The Act also gave the

TABLE III | **INTEREST RATE CEILINGS AUTHORIZED BY REGULATION Q**

Type of deposit	Oct. 31, 1933	Feb. 1, 1935	Jan. 1, 1936
Savings deposits	3%	2½ %	2½ %
Other time deposits payable in:			
6 months-1 year or more	3	2½	2½
90 days-6 months			2
Less than 90 days			1

FDIC the power to establish a parallel regulation of interest rates paid by insured commercial banks that were not members of the Reserve System. The rates set by the FDIC parallel those of the Reserve System, placing both member and nonmember insured banks on the same competitive footing. The powers given the FDIC obviated the need for measures earlier proposed for protecting savings depositors. These acts also significantly strengthened the ability of monetary authorities to control credit.

The constant publicity given to deposit insurance by the FDIC has greatly reduced the likelihood of a recurrence of bank runs like those of the early 1930's. Other stabilizing influences include broad adoption of real estate amortization, improved bank examination procedures and liberalization of discounting practices by Federal Reserve banks. These and other measures and policies make highly improbable another banking crisis of the magnitude of 1929-1933.

In accordance with the Banking Act of 1933 the Reserve System's Board of Governors in that year issued Regulation Q, which set a blanket 3 percent interest ceiling on time deposits in member banks. As general interest rates subsequently declined, together with the average rate paid on time deposits, the Board in 1935 reduced the blanket ceiling to 2.5 percent.

The shifting of funds from country banks to large city banks in the form of interbank balances had long been of concern to some members of the Congress. In the 1935 revision of the Federal Reserve Act, the Congress directed the Board of Governors to provide differential regulation of interest on savings and other time deposits and to establish maximum rates on time deposits in terms of maturities. Such a schedule became effective at the beginning of 1936, as is shown in Table III above. At the same time the FDIC issued a parallel schedule of rates applying to insured banks which were not members of the Reserve System.

Regulating interest payments had little practical effect until well after World War II because market rate levels were low and rates paid by commercial banks were generally under the maximum prescribed by the regulation.

As competition sharpened among an increased variety of savings institutions in the 1950's, the rate regulation altered to a considerable degree the terms of competition both among banks themselves and among banks and other savings outlets not subject to regulation. To some extent, the

prohibition of payment of interest on demand deposits may be said to have emphasized the distinction between time and demand deposits. Many banks were thus reluctant to raise rates on savings to meet competition as market rates rose.

The Quiet Years, 1933-1951

After the banking holiday of March 1933 the banking system gradually returned to an operating basis. In the depths of the depression time deposits in commercial banks fell to $21.3 billion. In mutual banks deposits remained stationary at $9.5 billion, which reflected the excellent record of mutuals during the crisis. The decade of the 1930's was unique in that savers placed first emphasis on security, with rates of return playing a secondary role. Throughout this period commercial and mutual savings banks continued to be the dominant savings institutions and the limited competition was chiefly among the banks.

During the last half of the 1930's demand deposits grew rapidly, rising by almost 40 percent from 1935 to 1939. Time deposits rose only 15 percent. But an increasing proportion of these demand deposits were idle and could have been transferred to time deposits. Demand depositors, however, did not seem anxious to put their funds to work, nor were they encouraged to do so by the banks. Average rates on time deposits, less than 2 percent annually during the last half of the decade, were not sufficiently attractive to warrant the switch.

For their part, banks were not anxiously seeking deposits. They had ample funds for any use. Demand deposits, almost costless because of their slow turnover, were growing rapidly. As a result some banks refused time deposits entirely while others paid a nominal 1 percent rate and limited deposit amounts.

During the war and the early postwar years the time deposit situation remained largely unchanged. Effective rates paid on time deposits continued the decline which began in 1931, eventually dropping to below 1 percent during the war and remaining there until 1947, adjusting with a slight lag to a falling earning ratio. The very large rise in demand deposits resulting from war financing by commercial banks was accompanied by a smaller growth in time deposits. But this reflected the general improvement in economic conditions rather than any special interest in time deposits by either savers or banks.

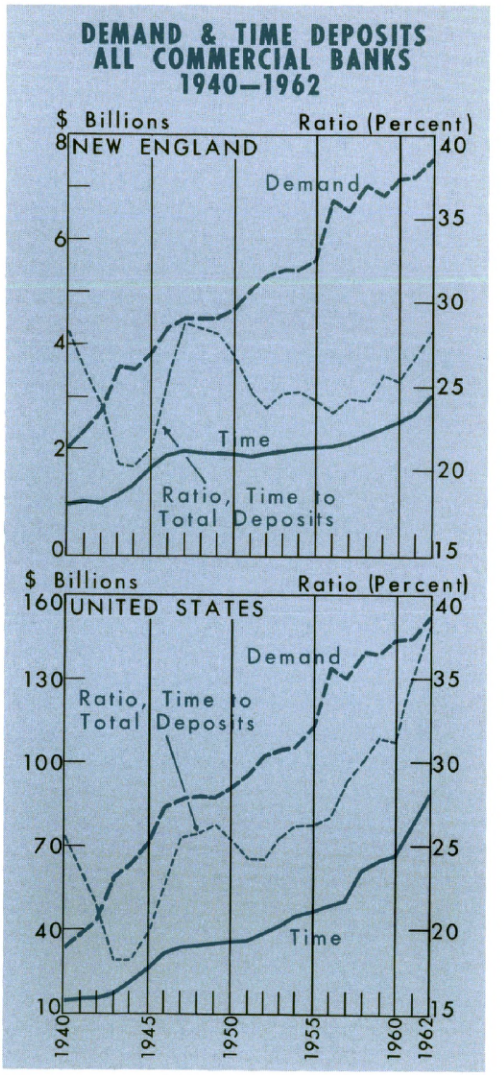
From 1941 through 1945, competition within the private sector for savings continued to lack vigor. With only a limited supply of mortgages available, the traditional outlet for savings and loan associations and mutuals, these organizations curtailed their promotional activities. Savings institutions helped to promote the sale of the Treasury's savings bonds and increased their own holdings of U.S. government securities.

From these years emerged a new pattern of savings habits. Commercial banks lost the dominant position which they had achieved by 1920. At that time they held 61.1 percent of liquid savings. At the end of 1940 total liquid savings aggregated $34.8 billion. The share of commercial banks dropped to 44.3 percent; mutuals held 30.5 percent; savings and loan associations held 12.4 percent; and postal savings, credit unions and savings bonds accounted for 12.4 percent. The war vigorously spurred a relative newcomer in the national savings race. By the end of 1947, savings bonds accounted for 41 percent of the nation's $112 billion liquid savings pool.

Time Deposit Resurgence, 1951-1962

The nation's monetary environment was changed from the wartime pattern of ease and pegged rates to more normal conditions as a result of the Federal Reserve-Treasury "Accord" of 1951, which discontinued the support program for government securities. Some signs of changes were visible, however, even before the "Accord." While time deposits, demand deposits, and currency had each more than doubled from 1941 to 1946, they increased by only small percentages during the next five years. This contrast in growth rates was mainly the result of differences in monetary expansion. The slow-down accompanied the cessation of massive deficit financing through commercial bank purchases of U. S. securities. It was not until the end of 1956 that the growth of time deposits began to accelerate significantly.

Although market rates moved up slightly in the early postwar period, strong pressure on the Regulation Q ceiling did not develop until 1955 and 1956, when rising demands for credit resulted in rate increases at a number of savings institutions. Strongly expanding business activity brought a widely diffused demand for funds by private borrowers. Home purchasers became the largest borrowing group and the institutions most closely related to the home mortgage market — savings and loan associations — began to seek funds aggressively. Their share accounts had grown more rapidly from 1946 to 1955 than during the war years, in contrast to the much slower growth of time and savings deposits at commercial and mutual savings banks. Along with the general rise in interest rates, time depositors became increasingly conscious of dividend rates and began to switch deposits from one institution to another or from banks to the investment markets. The rivalry for time deposits was no longer confined largely to banks but became more and more a competition of banks with other financial institutions. Credit demands and rates of return on loans



and investments made it more profitable for banks to seek time deposits than at any other period in the last quarter century.

In 1956, although most commercial banks were not paying the 2.5 percent maximum rate permitted by Regulation Q, a number of bankers were convinced that an increase in the ceiling was necessary. At the Thirty-seventh Annual Meeting of Stockholders of the Boston Reserve Bank held in October, 1956, the question of a higher maximum rate was discussed and a majority of the member bank representatives present voted in favor of a resolution requesting a higher maximum. Similar opinions were expressed elsewhere in the nation. It was under these conditions that the ceilings authorized by Regulation Q were raised for the first time in 20 years. The details of the changes, effective on January 1, 1957, are shown in Table IV.

In commenting on the ceiling changes the Board stated in its Annual Report for 1956: "After extended consideration of this matter, during which the views of the Federal Reserve Banks and the Federal Advisory Council were obtained, the Board concluded that in a period of heavy demands for funds and a relatively high structure of interest rates generally, it would be desirable to permit individual member banks greater flexibility than was available under the existing maximum permissible rates. It also appeared to the Board that there was insufficient reason to prevent banks, in the exercise of management discretion, from competing actively for time and savings balances by offering rates more nearly in line with other market rates. By increasing the rate limitations only on savings deposits and on time deposits with maturities longer than 90 days, the Board continued to recognize the special thrift character of savings accounts and to preserve a differential between longer term time deposits and short-term time deposits representing essentially liquid balances."

During 1957 expanding investment opportunities and a number of other factors provoked greater sales efforts by almost every institution seeking time and savings deposits. The new maximum rate gave the commercial banks added leeway in competing for savings. Posted rates were increased and supplementary sales devices were adopted such as merchandise premiums and more liberal computation of interest on new accounts. In the year 1957 time deposits at commercial banks in the nation rose about 11 percent, reaching a total of $56.1 billion.

Time deposits continued to rise sharply — about 12.5 percent — in the recession year of 1958, when the 3 percent rate compared favorably with most market rates.

Member banks in the Boston Federal Reserve district paid effective rates on time deposits only slightly below the national average. Despite the substantially higher rates of interest paid by mutual savings banks the region's member bank time deposits grew at the same rate as the nation's from 1955 to 1958.

With the recovery from the 1958 recession, market rates again began rising. And once again commercial banks argued that they were hampered in competing for savings by the ceiling imposed by Regulation Q. While monetary authorities conceded that a further increase in the rate would attract additional deposits, they had serious doubts that a 3.5 or 4 percent rate could be adequately covered by asset yields.

The maximum was not raised in 1959 and time deposits of commercial banks rose only 4 percent

TABLE IV | INTEREST RATE CEILINGS AUTHORIZED BY REGULATION Q

Type of deposit	Jan. 1, 1936	Jan. 1, 1957	Jan. 1, 1962
Savings deposits held for:			
1 year or more	2½ %	3 %	4 %
Less than 1 year			3½ %
Other time deposits payable in:			
1 year or more	2½	3	4
6 months-1 year			3½
90 days-6 months	2	2½	2½
Less than 90 days	1	1	1

during the year. In contrast, share accounts at savings and loan associations rose by 14 percent. Mutual savings, like commercial banks, did not fare well either, showing only a 3 percent rise in savings deposits.

During 1960 business activity slowed and interest rates declined. Time deposits quickly began to show the growth which characterizes recession periods. Several factors contributed to the sustained rise which occurred after the February, 1961, low point in the business cycle. Open market rates showed relatively little increase as recovery progressed, whereas in comparable postwar recoveries they had risen rather sharply. And a substantial volume of deposits resulted from offerings early in the year of negotiable certificates of deposit by the large metropolitan banks. Total time deposit growth at commercial banks for 1961 was 13 percent.

Early in December, 1961, the Federal Reserve Board and the Federal Deposit Insurance Corporation took action which significantly stimulated further growth. They announced, effective January 1, 1962, that member and insured commercial banks would be permitted to pay a maximum of 3.5 percent on all savings deposits; and 4 percent on all savings and time deposits held for a term of one year or more. See Table IV.

In announcing the increase, the Board of Governors commented:

"The 6,100 member banks of the Federal Reserve System have approximately 50 million savings and time deposit accounts, amounting at present to some $67 billion. More than three-fourths of the total amount is in savings accounts owned by individuals. The time deposits and certificates are owned by business concerns and other private or public institutions as well as by individuals.

"For some time, a number of commercial banks have contended that the 3 percent maximum rate has restricted them in their efforts to compete for savings and time deposits. One effect of the action will be to increase freedom of competition and to enable each member bank to determine the rates of interest which it will pay in the light of the economic conditions prevailing in its area, the type of competition it must meet, and its ability to pay.

"Another effect of immediate significance will

be to enable member banks so desiring to compete more vigorously to retain foreign deposits that might otherwise move abroad in search of higher returns and thereby intensify an outflow of capital or gold to other countries. Thus, today's action is in line with previous steps taken to moderate pressures on this country's international balance of payments.

"A further, long range effect should be to give member banks all the scope that may be needed for a considerable period ahead to provide an added incentive for the savings that will be required in financing the future economic growth that will be essential to expanding job opportunities for a growing population."

The results of this action were described in the opening pages of this study. In 1962 about 50 percent of the nation's commercial banks raised interest rates on savings deposits, and more than two-thirds of the banks on other time accounts. Total time deposits increased by more than 18 percent to a record high of $97 billion.

The expansion of time deposits was especially rapid during the first quarter of 1962, when net inflows were 25 percent at an annual rate. After that it slowed to a rate a little above 1961, but rose again toward the end of the year.

A part of the increase in time deposits represented additional regular savings accounts. And this portion of time deposits rose steadily throughout the year. Much of the increased inflow during the first quarter resulted from changes in preference by individuals, partnerships and corporations for other time deposit accounts, with business funds accounting for a substantial portion of the total. Such funds might otherwise have been left in demand accounts or invested in short term money market instruments. Directly competing institutions — mutual savings banks and savings and loan associations — also experienced substantial increases. Savings and loan association shares rose by $9.5 billion, about 9 percent more than in 1961. Mutual savings deposits increased by $3 billion — a 43 percent rise over the increase of the previous year. Indirect competitors such as life insurance and pension plans also continued their upward trend. This evidence suggests that little if any of the increase at commercial banks represented diversion of funds from these other institutions. To the extent that individuals shifted time deposits from one asset to another it would appear to have been a movement away from marketable securities and possibly some demand deposits.

Savings Deposits in New England 1962

At the close of 1961, national regulatory authorities announced an increase in the maximum permissible interest rate for time deposits at commercial banks. Throughout the country, bank managements faced the need to reassess interest rate policies in the light of several factors which, taken together, would markedly affect their growth and profits.

The ability to absorb increased costs is certainly a key determinant of interest rate decisions. Banks must cover their interest expense by loan and investment income. In New England, however, rates on all three major types of loans — business, mortgage and consumer — are lower than the national average. Rates on tax exempt obligations of state and local governments — an important source of bank income — are also lower on the average than in most other regions of the nation. Lower investment returns tend to discourage rate increases and produce generally lower rates on time deposits in New England.

Another factor contributing heavily to interest rate decisions at New England commercial banks is the large number and widespread distribution of mutual savings banks and, in some areas, of savings and loan associations and cooperative banks. Savings banks and savings and loan associations are generally able to pay higher rates than commercial banks because of their concentration on high-yield mortgage loans, because they are not subject to legal reserve requirements, and because they receive favorable treatment under federal income tax laws. Most mutuals in New England are paying 4 percent, a higher rate than many commercial banks feel they can profitably offer. Savings and loan associations generally meet or exceed this rate. This situation tends to discourage rate competition by commercial banks.

Among factors which often precipitate rate competition by commercial banks is the extension of branching. The opening of a new branch in a community or the merger of an old unit bank into a branch system disturbs old patterns of operations, and one of the results is likely to be increased rates paid on time deposits. In the nation, the lead in these rate rises is usually taken by branching systems seeking new business. But in New England, the initiative is often taken by unit banks to discourage branch entry or, once the branch is established, to retain its old customers and to attract customers away from the branch.

There is some evidence that suggests New Englanders in general are financially better informed than residents of some other regions. As a rule, New Englanders are more rate conscious and more flexible in the investment of their liquid funds. For example, there was less currency hoarding in New England during World War II than elsewhere, indicating that more savings here were put into savings institutions and savings bonds in order to earn interest. Since the war, however, New Englanders have been liquidating their savings bonds and transferring their funds into other forms at a faster rate than the national average. Thus New England commercial banks can expect their customers to react strongly to rate differentials.

Another factor influencing rate decisions is the hard-to-define characteristic of general competitive zeal. If bank management possesses it, rates are likely to be raised as a competitive move despite the possibility of some decline in profits. The factor may be the only explanation when, for example, two cities that are generally similar with respect to branching and mutual savings bank competition diverge on rate decisions, with one going up and the other standing firm.

All these factors seem to be involved in New England's reaction to the higher allowable rates on time deposits. In 1962 a slightly lower proportion of New England banks raised rates than did banks throughout the nation — about 40 percent here versus 50 percent in the country as a whole. Only 25 percent of the Bay State commercial banks raised their rates in 1962. The chief deterrent seems to be mutual savings bank competition, especially in Massachusetts, which has the heaviest concentration of mutual savings banks of any state in the nation.

The incidence of rate increase is markedly lower among large banks in the region than it is among the region's smaller banks. This is a locational phenomenon that can also be traced primarily to the presence of mutual savings banks. As noted above, commercial banks are frequently not able to engage in a rate competition with mutuals and savings and loan associations with any degree of financial success. Since mutuals and associations tend to be prevalent in large cities, the natural habitat of large commercial banks, rate increases have been more frequent among smaller banks in outlying cities and towns. In the nation, the reverse was true.

Although proportionately fewer New England commercial banks raised rates on time deposits in 1962, a larger share went to the 4 percent maximum (26 percent here as opposed to about 20 percent in the nation). A much larger proportion of banks in the nation stopped at 3.5 percent. New England's action probably reflects the competition of other savings institutions. If the region's commercial banks were to engage in rate competition, they felt that it was necessary to go to 4 rather than 3.5 percent.

Considered in terms of the proportion of time

TABLE V | **DISTRIBUTION OF SAVINGS HELD IN SELECTED TYPES OF FINANCIAL INSTITUTIONS IN NEW ENGLAND, DECEMBER 31, 1945, 1959 AND JUNE, 1962**

(In percent)

	1945			1959			1962		
	Mutual savings banks	Savings and loan associations	Commercial banks	Mutual savings banks	Savings and loan associations	Commercial banks	Mutual savings banks	Savings and loan associations	Commercial banks
Maine	53.6	0.8	45.6	53.4	10.4	36.2	52.7	12.5	34.7
New Hampshire	76.9	3.8	19.2	66.1	16.4	17.5	65.2	17.3	17.3
Vermont	36.5	2.9	60.6	28.7	9.4	61.9	33.2	10.8	55.9
Massachusetts	76.4	4.3	19.4	70.1	20.8	9.1	67.8	21.6	10.5
Rhode Island	55.1	1.1	43.7	45.0	20.8	34.2	46.1	20.7	33.1
Connecticut	73.5	4.0	22.4	67.8	15.8	16.4	68.0	15.6	16.3
Total New England	70.2	5.8	24.0	65.5	18.5	16.0	64.5	19.2	16.2
All Mutual Savings Banks States	47.8	5.4	46.8	40.7	26.2	33.2	36.9	28.1	34.9

Data includes total deposits of mutual savings banks, savings shares (excluding mortgage pledged shares) of member savings and loan associations of the Federal Home Loan Bank Board and time deposits of individuals, partnerships, and corporations of insured banks.

Source: National Association of Mutual Savings Banks, Federal Deposit Insurance Corporation, and Federal Home Loan Bank Board.

to total deposits, the difference between New England and the nation is again significant. In the nation, increases in interest rates were almost evenly balanced between banks with more than 25 percent of total deposits in time departments and those with less than 25 percent in time departments — slightly more than 50 percent of the "heavy time" banks raised interest rates, and slightly less than 50 percent of the "light time" banks did so. In New England, however, only 10 percent of the commercial banks with less than 25 percent of their deposits in time departments raised interest rates, while almost 50 percent of the region's "heavy time" banks did so. A rate rise is more costly, of course, for "heavy time" banks so they understandably are more reluctant to take such action. The fact that a much greater proportion of these banks in New England did so seems to reflect the region's financial sophistication. New Englanders are sensitive to rates and flexible in choosing their savings institutions. A "heavy time" bank often could not afford to stand pat when rate rises were occurring. Greater rate sensitivity in New England probably also explains why a smaller proportion of "heavy time" banks currently pay rates below 3 percent. Of banks with over a quarter of their total deposits in time, over 15 percent in the nation pay rates below 3 percent, while less than 10 percent of New England banks in this category do so.

The advance in the maximum permissible rate gave commercial banks more room for maneuvering. In December of 1961, 85 percent of District I commercial banks (and 90 percent of banking offices) were at the old maximum of 3 percent. In October of 1962, only 26 percent of all commercial banks (and only 18 percent of all banking offices) were at the new maximum of 4 percent.

In January and February of 1962, and again in October of the same year, the Federal Reserve Bank of Boston surveyed the reactions of New England's commercial bankers to the increase of maximum rates. During the course of the year, the comments of bankers changed in emphasis. In February a large number expressed strong concern about the future of banking. Many feared the higher rates would lead to deterioration of bank assets, with the subsequent danger of widespread failures. But by October, time, experience and more considered judgment modified initial fears. After 10 months' operating experience with the new regulations, coupled with careful observation, many fewer bankers felt compelled to comment on the topic at all — and those who did saw the problem as one involving bank profitability, rather than national catastrophe. Among the comments reflecting strong feelings were the following:

"Competition is acute. It is fortunate that a 4 percent limit is in effect."

"As long as mutuals and associations are not taxed at the same rate, competition is unfair."

"This higher rate is one more example of the economies of large operations which squeeze small banks and make mergers almost inevitable."

"In our judgment competition has become excessive. Both commercial and mutual savings banks are paying higher rates than justified. We will be satisfied if we can maintain our approximate position until the present cycle has run its course."

There was considerable opinion expressed early in 1962 that the spotlight of publicity thrown on interest rates pressured many banks into raising rates against their better judgment. It is too early as yet to tell whether this body of opinion is correct, but some preliminary indications seem to suggest that it is not. From February to October, 9 percent of the commercial banking offices in the First District raised their rates (in addition to the 28 percent that had already raised their rates by February), while only two banks, each with one office, were recorded as having reduced rates (after previously having raised them). This appears to indicate that even after the initial excitement there was competitive pressure to raise rates.

Similarly, it might have been expected that as 1962 progressed, increased competition would force more of the banks paying below 3 percent to raise their rates. This has not been evident, however. Among the banks that raised their rates after February, only one out of six had been paying below 3 percent. In the earlier surge of increases, the proportion was one out of seven.

One of the interesting features revealed by these surveys is the rapid growth rate of savings at those banks which had a relatively small proportion of time deposits. Most of these banks either opened a time department recently or reinvigorated it after having kept it simply as an accommodation to depositors.

Among banks with less than 10 percent of their December, 1961, deposits in savings, the average growth rate of savings deposits from December, 1961, to September, 1962, was 17 percent. This

Maximum rate paid on savings deposits September 1962	Average change in savings deposits December 1961 — September 1962	Number of surveyed banks paying rate
1, 1½ %	− 8.6%	17
2	− 1.8	16
2½	− 0.1	7
3	7.0	102
3½ *	8.5	54
4	13.0	72

*Includes one bank paying 3¾ percent.

markedly exceeded the average over-all rise of 8 percent. However, most of these banks were in greater Boston where the over-all average growth of 13 percent was higher than for New England as a whole. But even within the Boston area the "light time" banks did relatively well — their gain averaged 18 percent as compared to an 11 percent average increase for all other banks in the region.

The relation between rates paid and changes in the volume of savings deposits at the district's commercial banks during the first nine months of 1962 is shown in the table above.

The average relation between rates paid and deposit growth percentage is about what might have been expected. Perhaps a somewhat greater decline might have been anticipated for banks paying below 3 percent, but these banks may already have lost most of the savings money that was subject to transfer. The banks paying 3.5 percent had only slightly more of an inflow than banks paying 3 percent. But many 3.5 percent banks either raised their rates late in 1962 or were in areas where rates of 4 percent were paid by other commercial banks.

There is considerable variation among the growth rates of individual banks at the different rate levels. The largest percentage increases were shown by banks paying a 3 percent rate. No bank paying less than 3 percent showed substantial growth. One technique to attract savings deposits is the payment of daily, "instant," "full," portal-to-portal," or "exact days" interest. This appears to have been successful, as indicated below.

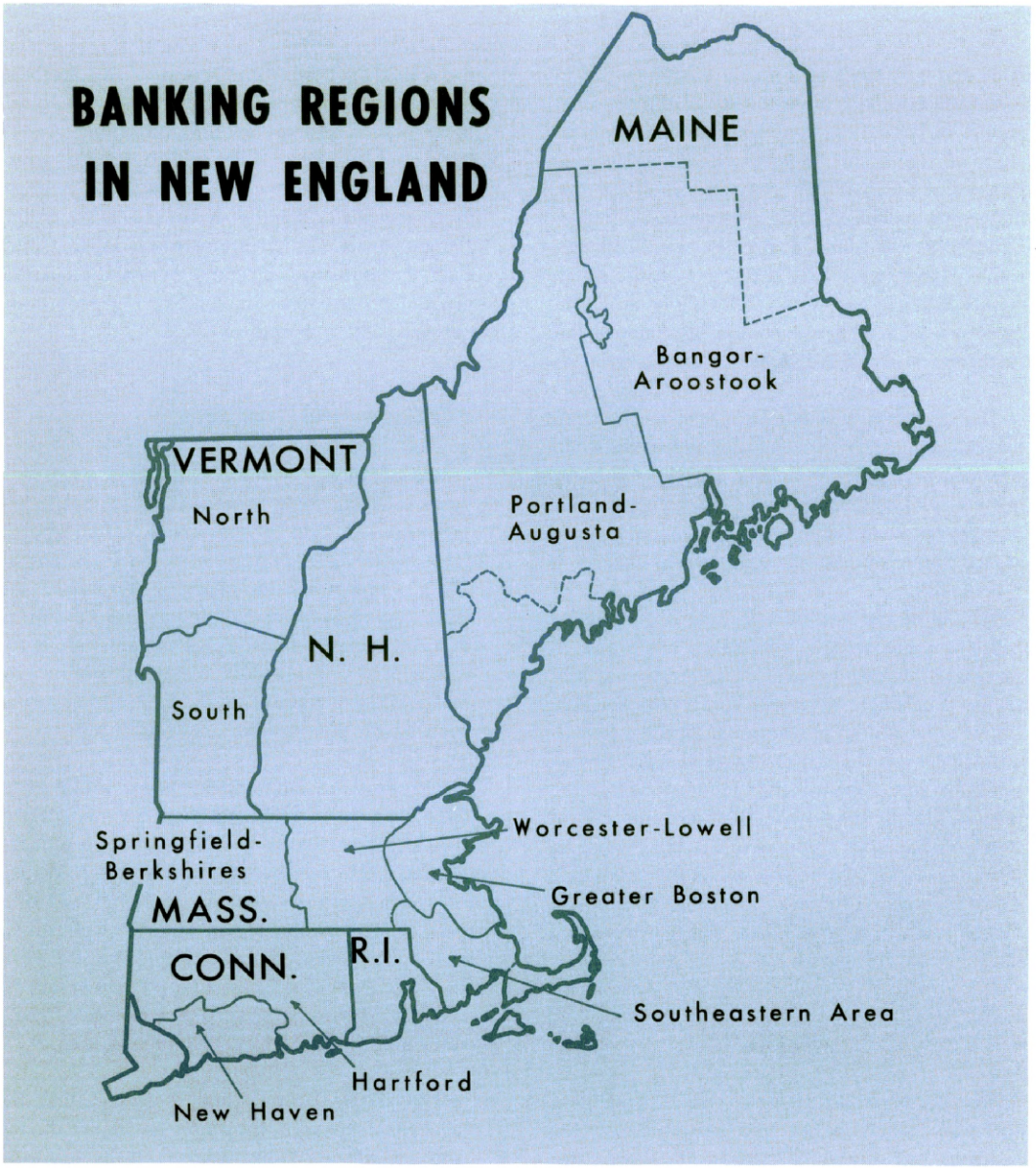
Banks paying a maximum of:	Average increase in savings, December 1961 — September 1962 Banks paying semi-annual interest	(Number of banks)	Banks paying daily interest	(Number of banks)
3 %	6.5%	(130)	7.4%	(13)
3½	5.8	(47)	10.8	(6)
4	11.2	(73)	28.6	(5)

Instant interest adds almost .25 percent to interest costs. For example, a bank paying 3 percent semi-annually generally has effective interest costs of between 2.75 and 2.80 percent, because deposits withdrawn before the semi-annual date earn no interest for the time that has elapsed during the current interest period. Daily interest brings the effective rate up to the stated rate. While the comparison of savings growth suggests that daily interest is effective in attracting deposits, it may be a little misleading. The daily interest banks generally offer several other favorable factors, including location in areas where over-all deposit growth is high. Many of them also have reinvigorated time departments.

There is some question concerning the relative amounts of different types of deposits attracted by daily interest. It would not seem to be important to the depositor who is not thinking of withdrawing his money within a year or two. But it would be an attraction for the saver planning to purchase an automobile or household appliance. It is also a definite inducement to the depositor of large amounts of temporary investment funds.

These investment funds played an important role in the growth of commercial bank savings in 1962. They often go to commercial banks for several reasons. There are deposit size limits in other institutions (as there are also in state-chartered commercial banks in Massachusetts and, to a lesser extent, in Connecticut). Instant interest is also an attraction to the depositor who will shift his funds the moment a more advantageous investment opportunity arises.

New England's commercial banks showed good growth in savings deposits in 1962. Over the first nine months, the period covered in the following analysis, these savings deposits grew by 8 percent. This exceeded the New England mutual savings bank deposit growth of 7 percent over the same period, and was close to the 9 percent growth of the region's savings and loan associations. The growth at commercial banks was the more remarkable in view of the fact that their most common rate paid was only 3 percent, while the other two major types of savings institutions paid an average of 4 percent.



Regional Rate Changes and Deposit Growth

Although New England enjoys a greater degree of social and economic homogeneity than most other regions of the nation, there still remain prominent areas of significant diversity. Banking law and practice differ markedly among the six states. State-wide banking systems, for example, are sanctioned in Rhode Island, Connecticut and Vermont, while Massachusetts' bankers are restricted to county boundaries. Maine allows the establishment of bank branches in contiguous counties, but branching is prohibited in New Hampshire.

The competitive climate in each state spreads the gap still wider. In Massachusetts, there are six dollars of mutual savings deposits for every one dollar of commercial bank time deposits. But in Vermont, time deposits at commercial banks exceed mutual savings deposits, two-to-one.

Such legal and institutional diversity, combined with varying competitive pressures, has produced strikingly different patterns of interest rates and savings deposit growth among the six New England states. The following pages examine these patterns and, with the aid of charts and graphs, attempt to assess the effect of interest rates upon deposit growth during the first nine months of 1962. The analysis is limited to "savings" deposits, which compose about 85 percent of total time deposits in New England. "Other time" deposits, owned mainly by businesses and governmental units, are not included.

Maine

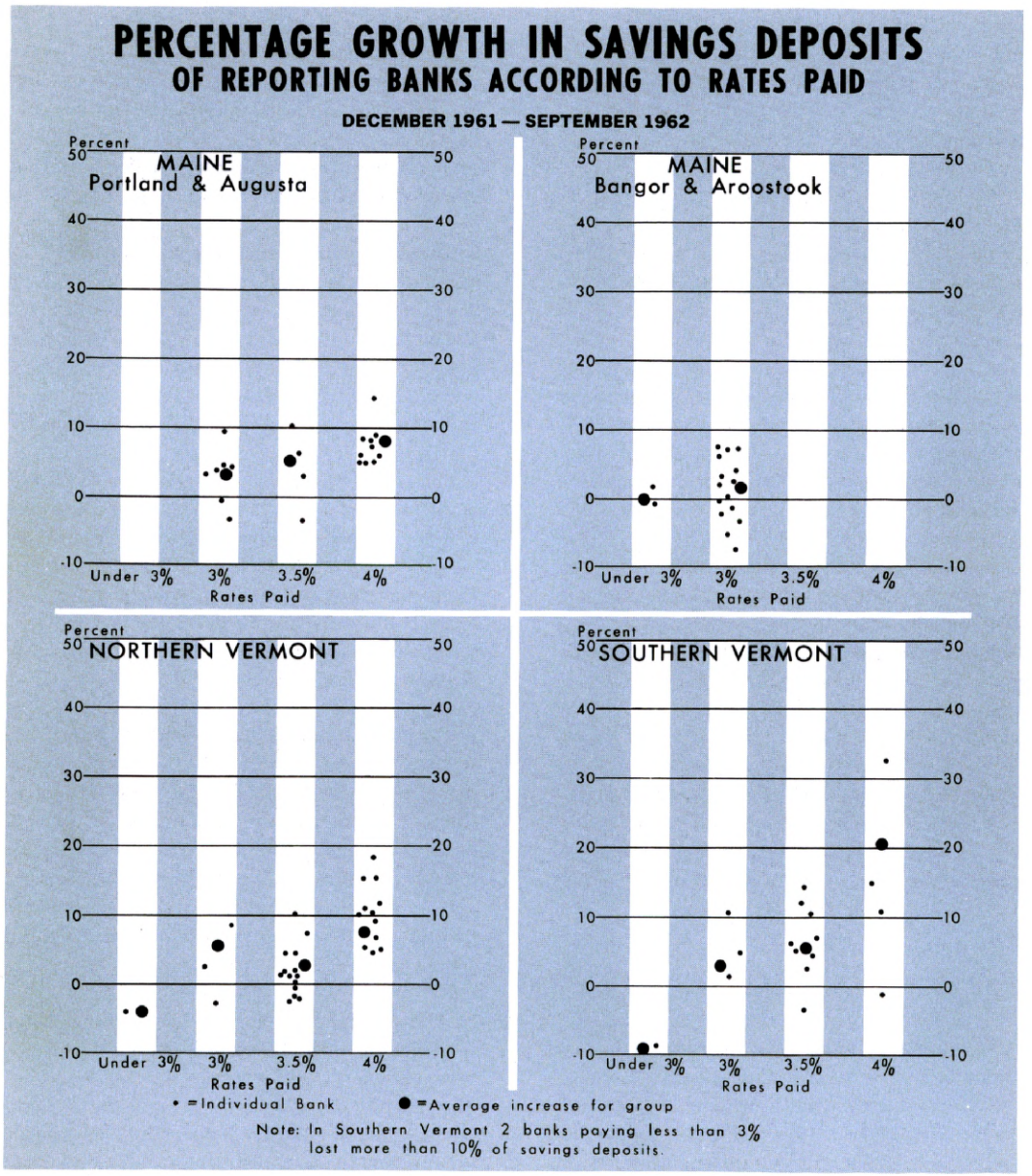
The northernmost state of New England has four well-defined business and banking areas. The southern area surrounds Portland, the central surrounds Augusta, and the eastern reaches from the Bangor area to the Atlantic on the south and to the Canadian border on the east. The northern area is composed principally of Aroostook County. Most branch systems are located within one of these four economic units, although some overlapping of branches occurs between the Augusta area and the adjoining areas of Portland and Bangor. Because there are relatively few banks in each, the southern and central areas and the northern and eastern areas are combined in the accompanying scatter charts.

Portland and Augusta

Among New England's 19 banking areas, Augusta is second only to northern Vermont in the proportion of banking offices that raised interest rates higher than 3 percent at the beginning of 1962. Competition for savings in the area is intense. As in northern Vermont, the expansion of branch banking from Augusta has intensified competition. But unlike Vermont, where unit banks initiated rate increases, the lead here came from within the branching systems.

The Portland area usually behaves like other large metropolitan areas in New England. Here, mutual savings banks and other thrift institutions abound, and commercial banks generally do not engage in aggressive rate competition. Only one-third of the commercial banking offices offer rates higher than 3 percent. But despite this, the Portland area showed a 7 percent growth in savings at commercial banks in the first nine months of 1962, compared to 6 percent in the Augusta area.

The scatter chart shows, however, that the higher the rate paid, the uniformly higher the average growth in savings deposits in the region as a whole. Portland area banks generally ranked highest in each rate category. One Portland area



bank which paid 3 percent experienced a particularly high growth rate since it was located in a one-bank town, fairly distant from towns where higher rates were paid. And the bank provided special inducements for new customers.

Bangor and Aroostook County

The striking feature of the scatter chart for eastern and northern Maine is the relatively small amount of variation in the level of interest rates paid for savings accounts. Of the responding banks, fifteen pay 3 percent and the remaining two pay a rate of 2 percent. There are not many other thrift institutions in these two areas, since most towns are small, but most of those that exist pay 4 or 4.5 percent.

The two banks paying a 2 percent rate are in the Bangor area and have been able to hold on to their savings deposits fairly well. Most of these deposits are small savings accounts of individuals, and convenience is a factor that helps to keep them where they are.

All Aroostook County commercial banks pay a rate of 3 percent. Savings deposits at commercial banks in this area showed a slight drop during the study period, probably due to the low prices of potatoes (the region's principal crop) prevailing over the past several years.

New Hampshire

Since branch banking is prohibited in New Hampshire, competition among commercial banks tends to be localized. Considerable state-wide competition, however, is provided by several mutual savings banks which advertise extensively for deposits and pay rates above the savings bank average. Even on the local level there is greater competition between commercial and mutual savings banks than is common elsewhere in New England. As a result, New Hampshire has the highest proportion of commercial banks in New England paying the maximum rate of 4 percent.

There are six guaranty savings banks in the state which are, in effect, stock savings banks. They hold about $55 million of savings deposits as compared to about $45 million in trust companies (state-chartered commercial banks) and about $70 million in national banks. Mutual savings banks hold about $600 million in deposits.

Guaranty savings banks are frequently classified as commercial banks, but they are treated like mutual savings banks by the Federal Deposit Insurance Corporation in its administration of maximum interest rates. Their payments on savings deposits are considered dividends rather than interest payments, and are exempt from regulation. Guaranty savings banks pay the same rates, in general, as do mutual savings banks. Because they are included in the insured commercial bank tabulations of the Federal Deposit Insurance Corporation, the effective rate paid by New Hampshire insured commercial banks on time and savings deposits amounted to 3 percent in 1961, an average equal to the maximum allowable rate and substantially higher than the average effective rate of insured commercial banks in any other state in the nation.

Although New Hampshire law does not allow branching, it does allow joint operation of commercial and savings banks by the same management in the same building. Some 14 of New Hampshire's 31 guaranty and mutual savings banks are involved in these joint ventures. The commer-

cial bank partner maintains no time department, accounting for the fact that almost half of New Hampshire's commercial banks report no savings deposits. But most commercial banks that do maintain time departments compete aggressively for deposits, as indicated by the high proportion paying 4 percent.

As the scatter diagram on page 43 indicates, banks paying a rate of 4 percent averaged 12 percent savings growth in the first nine months of 1962. Banks paying 3 or 3.5 percent enjoyed only small increases. Some individual banks in the 3 percent category did receive large inflows, but these banks usually faced no local competition.

Vermont

Among the New England states, Vermont ranks highest in commercial bank time deposits per capita, and lowest in per capita mutual savings deposits. It is the only state in the region in which commercial bank time deposits exceed mutual savings deposits. As in New Hampshire, several mutual savings banks compete statewide through aggressive advertising and also attract funds from bordering states.

Almost all the commercial banks in the state have a high proportion of time deposits to total deposits, and competition for the savings dollar is generally keen. Competition is increased by the continued expansion of branching. While statewide branching is allowed, up to now there has been a clear split between northern and southern systems. Two systems exist in each portion of the state, with the northern systems headquartered at Burlington and the southern systems at Brattleboro. None is large in terms of number of branches — the maximum is nine — but all have been expanding. Merger possibilities are widely discussed by almost every commercial banker in the state, and savings deposit interest rates are one of the weapons used by unit banks to discourage entry of branches into their area.

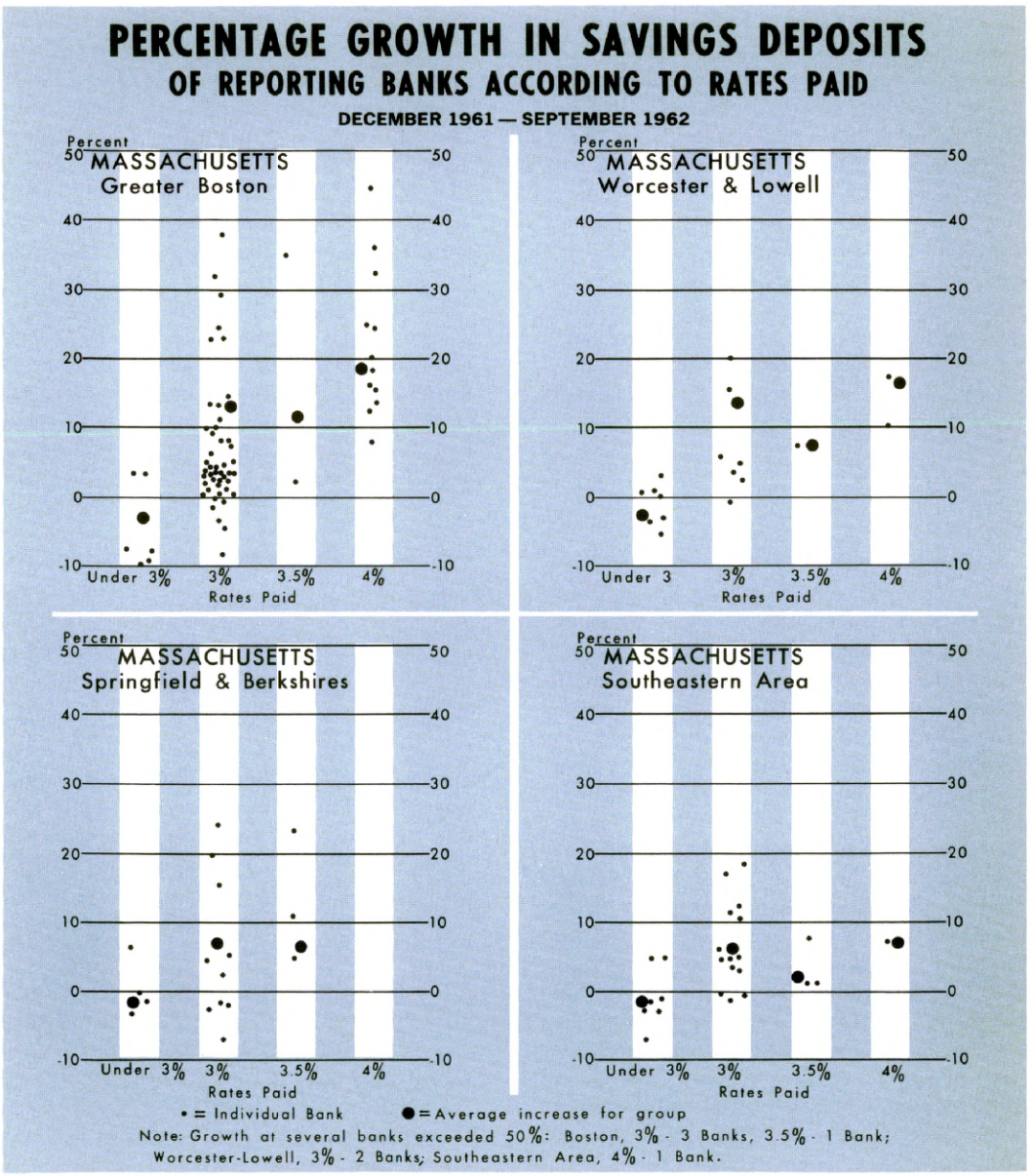
The branching systems are faced with a problem in meeting high interest rates offered by unit banks in some of their branch cities and towns. Vermont law requires a bank to pay the same rate at all offices on the same kinds of savings deposits. Thus, if these systems raise their rates to meet competition in one location, they must do so at all branch offices. And since there is little or no competition in many branch towns, raising interest rates in such places brings higher costs without much compensating gain.

Northern Vermont

Both of the large branching systems in northern Vermont pay a rate of 3.5 percent. Competing unit banks in some cases have met this rate, and in other cases have raised their rates to 4 percent. As the scatter chart shows, most banks are paying rates of 3.5 or 4 percent, giving this area the highest percentage of banking offices offering more than 3 percent in all New England. But despite this, aggregate savings growth at commercial banks in this area was only 5 percent, appreciably below the New England average of 8 percent. Conceivably, banks in this area have already exploited most of the time deposit potential. Mutual savings banks here had a somewhat larger percentage growth, however.

Southern Vermont

The two large branching systems in southern Vermont pay a rate of 3 percent on a daily interest



basis for savings deposits, while most of their unit competitors pay 3.5 percent semi-annually. The banking climate here is similar to that in northern Vermont, where the branching systems pay a rate of 3.5 percent while many competitors pay .5 percent more.

Only six banking offices in southern Vermont pay a 4 percent rate. With most other banks paying either 3 or 3.5 percent, the 4 percent rate has proved effectively attractive. These banks showed an average growth of 20 percent in savings deposits from January to September, 1962. In contrast to greater Boston, daily interest does not seem to be as effective in attracting savings to 3 percent banks, perhaps reflecting a relative lack of the investment funds which are plentiful in the Boston area.

Massachusetts

An outstanding feature of the banking environment in the Bay State is the strong influence of mutual savings banks. Two-thirds of all liquid savings assets in the state are held in mutual savings banks, a share far greater than in any other state. Because of the number and widespread distribution of mutual savings banks, commercial banks do not usually compete actively for deposits — outside the South, the state ranks lowest in the nation in commercial bank time deposits per capita.

In recent years, however, commercial banks have become more interested in time deposits. As a rule, they engage in little direct rate competition, but by capitalizing on the convenience of multiple banking services they are able to attract savings even when the rate differential is as high as 1 percent.

Branching in Massachusetts is allowed only within county boundaries. This has limited the large Boston banks to Suffolk county — little more than municipal Boston. Branching systems are located in other counties, but do not have the aggregate deposit size of the large city banks.

Greater Boston

This region includes an area somewhat larger than metropolitan Boston — it extends all the way to the northern border of the Commonwealth and thus takes in Lawrence, Haverhill and Newburyport. It has an especially heavy concentration of such competing thrift institutions as mutual savings banks and savings and loan associations. Cooperative banks — similar in asset structure to savings and loan associations — are also prevalent. Commercial banks did not aggressively seek time deposits in the past, and many had no time departments at all. Even today, only 45 percent of greater Boston commercial banks have more than 25 percent of total deposits in time departments, compared with 80 percent of New England commercial banks outside the area showing a time to total deposits ratio of more than 25 percent.

Most competing institutions pay a rate of 4 percent, while only 15 percent of the commercial bank offices in the area pay more than 3 percent. Under these circumstances it might have been expected that greater Boston's commercial banks would rank low in savings deposit growth. But commercial bank savings deposits in this area grew by 13 percent in the first nine months of 1962 — an expansion surpassed in New England only by the New Haven area.

There have been two sources of this substantial savings growth in greater Boston — small savers

and individuals with large amounts of investment funds. Small savers have been attracted to commercial banks because of their convenience despite higher rates paid by competing institutions. Commercial bank offices are numerous and well-located, and one-stop banking saves both time and trouble. And within the last year or so, many of the banks, especially the larger ones, have added the attraction of daily interest. Finally, there are many new or reestablished time departments in this area and at these banks demand depositors are to some extent a captive market, generating savings deposits if offered even a minimum of inducement.

Depositors with substantial investment funds are numerous in the Boston area. They provided a large deposit inflow during the first nine months of 1962. If market yields on Treasury bills were to rise above the general commercial bank rate of 3 percent, however, a substantial amount of these investment funds might leave.

Most banks in the Boston area — 49 out of 70 — pay a rate of 3 percent, as the scatter diagram shows. Twenty banks are above the 3 percent level, while six banks are below. Those paying less than 3 percent lost savings deposits on the average from December 1961 to September 1962.

Banks paying a rate of 3 percent gained an average of 13 percent during the first nine months of 1962, while banks paying 3.5 percent gained an average of only 12 percent. Of the three responding banks which pay a rate of 3.5 percent, two only recently raised the rate from 3 to 3.5 percent. In these cases, the full impact of the higher rate cannot yet be accurately assessed. All banks offering daily interest experienced savings increases which were well above average even though most of them paid only 3 percent.

Of the 49 banks paying a rate of 3 percent, 27 experienced savings growth of less than 5 percent during the period analyzed. The considerably higher group average gain — 13 percent — is due to unusually heavy increases at a few banks.

In contrast, no responding bank that pays a 4 percent rate increased time deposits by less than 8 percent during the survey period. While a few banks paying a rate of 3 percent did indeed exceed in growth all banks paying a rate of 4 percent, the 4 percent rate was more uniformly effective in attracting new deposits. For the most part, the 3 percent banks with extraordinary deposit growth had new time departments or had recently begun to promote these departments aggressively.

The bulk of the banks paying 4 percent are located in the western and northern suburbs of Boston, and in the Lawrence-Haverhill area. This clustering of banks paying 4 percent suggests that competition among commercial banks is more effective in raising rates than is competition from thrift institutions paying the same rate in these localities as elsewhere in greater Boston.

Southeastern Massachusetts

This section of the Commonwealth has two distinct areas, one including the old industrial cities of Fall River, New Bedford and Brockton, the other embracing all of Cape Cod. Quite early in American history, Fall River and New Bedford became textile manufacturing centers, while Brockton specialized in shoe manufacture. Mutual savings banks were established in such centers early in the last century, and even today, commercial banks in this area are greatly outnumbered by other thrift institutions.

Of the 37 commercial bank offices in the Fall River-New Bedford-Brockton area, only three — all unit banks — pay rates higher than 3 percent. One-third of the group pays interest rates of less than 3 percent. There is little active competition for savings deposits; but despite this, and the presence of other savings institutions which pay rates of 3.75 or 4 percent, commercial banks in the area experienced savings growth of 3 percent from December 1961 to September 1962.

Mutual savings deposits in the area increased about 5 percent, only slightly more than commercial bank deposits. The greatest commercial savings growth was at banks that had raised rates at the beginning of the year from 2.5 to 3 percent. Most of these, however, had begun with only small amounts of savings. Several banks paying less than 3 percent indicated an intent to raise their interest rate on savings.

On Cape Cod, commercial banks averaged a 10 percent savings growth during the first nine months of 1962. This is a relatively high rate of growth, since only four banking offices out of a total of 20 in the area were paying more than 3 percent, and five were paying less than 3 percent. Seasonal influences may explain this growth, however. Bank deposits on Cape Cod, especially demand deposits, are at their annual low point in May. Growth begins in June, continues into September, and then subsides in a gradual decline through the winter. December, then, would ordinarily be a month of relatively low deposit levels, while September would be high.

Largely because of the Cape Cod influence, the scatter chart shows high growth rates for many banks paying a rate of 3 percent in southeastern Massachusetts, and growth rates well above the average for banks paying 3.5 percent. Even so, growth at banks paying 4 percent was highest.

Worcester-Lowell

Both Worcester and Lowell are on the periphery of greater Boston, and the two are more closely related to this economic complex than to each other. But since greater Boston has so many banks, the larger outlying areas are here treated separately for the purposes of analysis.

Both Worcester and Lowell are the headquarters of branch systems. Two of these systems account for most of the offices paying more than 3 percent. This area and central Maine are the only areas in New England where branch systems pay above-average rates. In each case, they are making an aggressive drive for deposits.

Among Massachusetts areas, Worcester-Lowell has the highest proportion of commercial banking offices paying rates higher than 3 percent. Nevertheless, banks paying only 3 percent averaged a high growth rate during the first nine months of 1962. Several of the latter have new time departments, while others offer daily interest. Even banks paying rates of 2 and 2.5 percent were holding deposit levels almost unchanged. Only the banks paying below 2 saw any sizeable deposit decline.

Overall, savings deposits in this area grew 11 percent from December 1961 to September 1962 — an amount equal to the state average. Mutual savings banks saw growth of only 5 percent.

One bank in the Worcester-Lowell area raised its interest rate from 1 to 2 percent early in the year, then returned to 1 percent during the summer. According to the bank's management, the early increase did not stimulate significant deposit growth. However, another bank that increased its rate on savings deposits plans still another raise.

Springfield and Western Massachusetts

In western Massachusetts, the city of Springfield serves as the main business center of Hampshire and Hampden counties, while Pittsfield performs a similar function for Berkshire and western Franklin counties. Generally, commercial banks do not compete actively for savings deposits in either area.

In the Pittsfield area, several banks are paying interest rates of 3.5 percent. These banks gained savings deposits during the period of the study, while all but one bank paying less experienced losses. Savings in this area as a whole declined slightly over the period — one of only two areas in New England to do so. This is probably due to active competition by competing thrift institutions which have more branches than do the commercial banks. But merger activity seems to be intensifying, and may bring more aggressive rate behavior by some commercial banks.

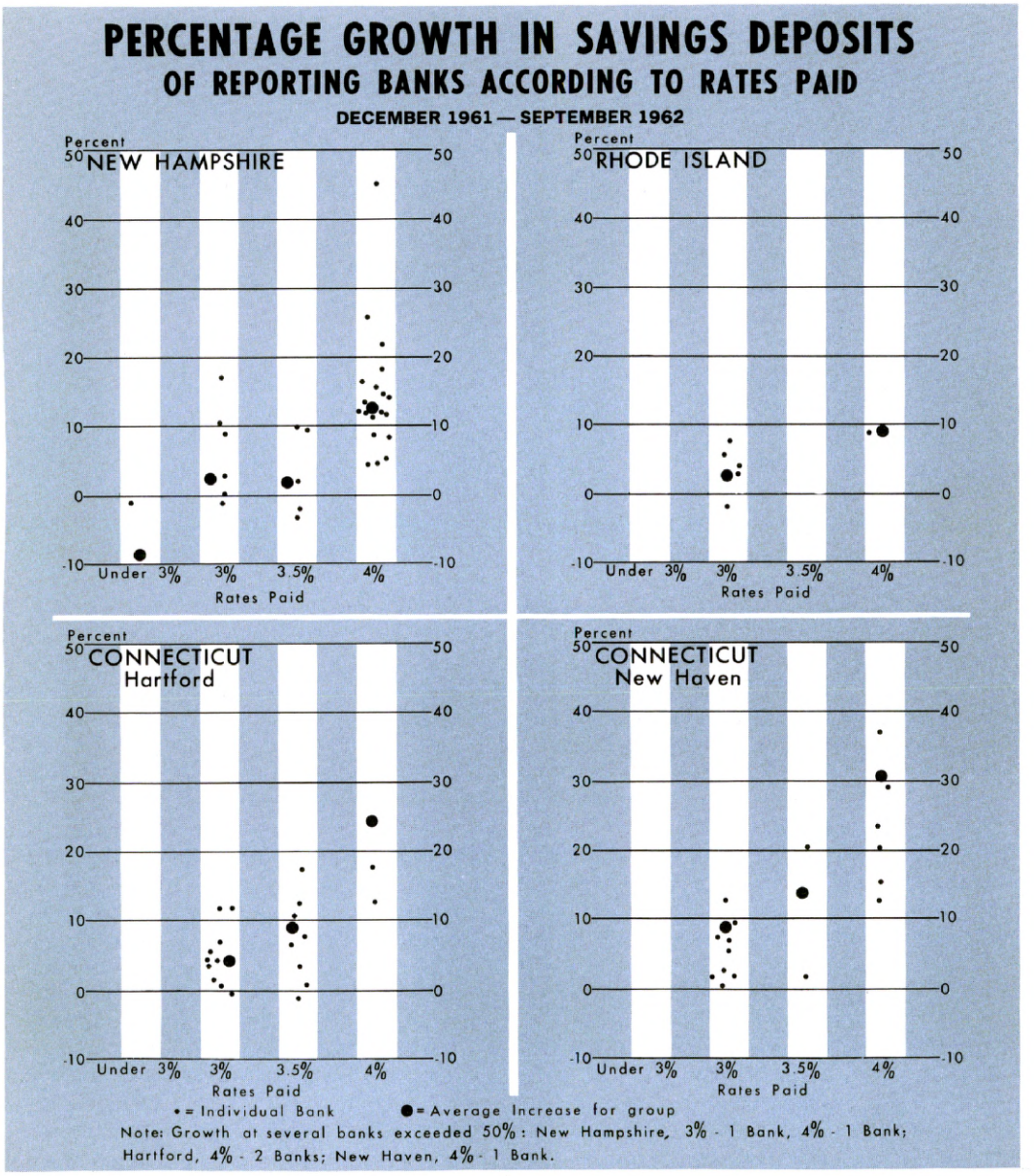
Commercial banks in the Springfield area showed a 6 percent gain in savings deposits during the study. But since only one bank pays a rate of more than 3 percent, rates alone cannot explain this growth. Other factors include the payment of daily interest, which appeared to be fairly effective in attracting substantial amounts of investment funds, and the establishment of additional branch offices. As in the Pittsfield area, banks paying less than 3 percent frequently lost deposits.

Rhode Island

There are two large branch systems in Rhode Island and seven small banks, several of which have a few branches. Three of the smaller banks have no savings deposits, but are instead operated under joint management with mutual savings banks, as are many New Hampshire commercial and savings banks. Commercial banks hold slightly less than one-half of the state's savings deposits, while mutual savings banks hold slightly more than one-half. Despite the fact that the average commercial bank in the area has almost 40 percent of total deposits in time departments, most of them do not choose to engage in rate competition. They resemble the average Massachusetts bank in rate policies, although they are closer to New Hampshire and Vermont banks in proportion of time deposits to total deposits.

Only one Rhode Island bank reported a rate on savings above 3 percent. Paying interest at 4 percent, it showed markedly larger deposit growth than the 3 percent banks. In contrast to the experience of banks in greater Boston, the payment of daily interest did not stimulate above-average growth — but it may have prevented deposit loss.

Savings deposits at Rhode Island commercial banks rose by only 3 percent from December, 1961, to September, 1962 — a much smaller increase than in any other New England state. Since deposits in the state's mutual savings banks rose at a slightly greater rate than in the other states, it is obvious that commercial banks in Rhode Island have not been able to compete as effectively as commercial banks elsewhere in New England. The explanation probably lies in the lower level of rates paid by Rhode Island commercial banks, compounded by the absence of any new or re-established time departments.



Connecticut

In the First Federal Reserve District, Hartford and New Haven are Connecticut's principal business and financial centers. State-wide branching is allowed, and the two most extensive branch systems have headquarters at Hartford. Branches of these two systems are established in almost every part of the state in the First District. New Haven and Waterbury contain the main offices of several smaller branching systems that cover the New Haven County area. As in Rhode Island, no responding Connecticut bank pays a rate of interest lower than 3 percent on time deposits.

Hartford

For the purposes of this study, the Hartford area includes all of Connecticut outside the New Haven area and Fairfield County.

Rate levels in specific localities seem to depend largely on the presence or absence of branches of the large systems. One of the systems is currently paying 3.5 percent interest, the other pays 3.75 percent. Both compute interest on a daily basis.

The tabulation at the top of the next column lists the rates paid by unit banks or small branching systems that compete with branches of the large systems, and compares these with the rates paid by similar banks in towns and cities that do not contain branches of the large systems.

The presence of a large-system branch appears to insure that high rates will be paid. But interestingly, in large-system branch towns the smaller local banks were usually the leaders in raising rates. The large systems were obliged to follow. If the large branching systems were entirely governed by the situation in Hartford, where mutual

Rate (percent)	Local banks in branch towns	Local banks in non-branch towns
3	0	7
3½	5	5
3-3¾	2	2
4	6	4

savings banks and savings and loan associations are numerous, they probably would have remained — as did Boston banks — at the 3 percent level.

New Haven

During the study period, New Haven enjoyed the greatest percentage gain in commercial bank savings of any New England area. As the chart indicates, not a single responding bank showed a decline in deposits. Banks paying 3 percent averaged 9 percent growth, banks paying 3.5 percent averaged 14 percent, and banks paying 4 percent averaged growth of 31 percent. For the entire New Haven area, growth during the study period averaged 15 percent.

This striking increase was encouraged by all the factors that are usually associated with savings deposit growth. Several banks have re-established time departments, several pay daily interest, branch locations are convenient, and the personal income level of the area's residents has been steadily rising. In addition, banks in the area are employing wide advertising and promotion.

Mutual savings banks and other thrift institutions are plentiful in New Haven, and the prevailing interest rate at these banks is 4 percent or higher. But despite this, mutual savings in the area grew by only about 7 percent during the same period. The difference seems to be explained by the convenience of one-stop commercial banking.

TABLE VI | **SELECTED SAVINGS DEPOSIT DATA SURVEYED COMMERCIAL BANKS, DISTRICT 1, 1962**

	Percent of Banking Offices Raising Rate Paid in 1962	Percent of Banking Offices Paying Various Maximum Rates, September 1962				Percentage Growth in Savings Deposits Dec. 1961-Sept. 1962	Percent of reporting banks with over ¼ of total deposits in time
		Below 3%	3%	3½%	4%		
Connecticut	66.0	0	34.8	48.9	16.3	12.7	56
Hartford	78.6	0	22.5	67.5	10.1	11.3	65
New Haven	44.2	0	55.7	17.3	26.9	15.0	42
Maine	46.0	3.3	57.9	3.3	35.5	5.0	98
Portland-Augusta	68.7	0	40.4	5.1	54.5	6.6	96
Bangor-Aroostook	3.8	9.4	90.6	0	0	1.4	100
Massachusetts	25.7	14.0	70.0	5.3	10.6	10.6	43
Boston-Metropolitan	30.5	5.4	78.3	3.4	12.9	13.1	46
Fall River-Cape Cod	19.0	31.0	55.2	6.9	6.9	4.0	52
Worcester-Lowell	26.2	21.3	52.5	13.1	13.1	10.0	52
Springfield-Berkshires	7.1	37.5	57.2	5.4	0	4.6	17
New Hampshire	67.9	10.7	21.4	3.6	64.3	8.9	81
Rhode Island	3.2	0	96.8	0	3.2	3.3	100
Vermont	74.4	2.6	25.6	47.4	24.4	5.6	100
North	93.5	2.2	8.7	60.9	28.3	5.0	100
South	46.9	3.1	50.0	28.1	18.8	6.5	100
Total District 1	38.9	9.0	59.1	14.1	17.8	8.0	66

Why Commercial Banks Seek Time Deposits

"Mixed banking," or the acceptance and the investment of both time and demand deposits by commercial banks has been a common practice in commercial banking for well over a century. Nevertheless, because this "mixed banking" continues to be challenged, a review of the practice seems desirable. The challenge has two facets: (1) is it in the public interest for commercial banks to seek time deposits, and (2) are time deposits desirable for commercial banks?

As far as the public is concerned, a balanced answer must almost certainly be affirmative.

Management of commercial banks is at least on a par with that of mutual institutions. With present strict standards of bank supervision, it would be hard indeed to argue that time deposits would be less safe in commercial banks than they would be in strictly savings institutions.

Many supervisory authorities agree that, far from having an adverse influence upon commercial banks, time deposits have a stabilizing effect. They are less volatile than demand deposits, which are often drawn down unexpectedly and in large amounts. They are less seasonal in nature and are less subject to contraction in a period of economic adjustment or business pause. Thus, commercial banks can better and more safely serve the needs of the community if, in addition to demand deposits, they can lend from a pool of funds that includes a stable floor of time deposits.

In addition, because the offices of commercial banks in the United States outnumber the offices of all major thrift institutions combined, the convenience of the depositor is frequently increased significantly if his savings deposit can be made at the same office where he makes his checking account deposit. This convenience is real. So much so that depositors are usually willing to accept a lower rate of interest on their savings deposits at commercial banks.

If, then, one can accept the thesis that time deposits at commercial banks are in the public interest, what is to be said about the desirability of time deposits from the viewpoint of bank management? Surely, profitability of time deposits ought to be a major consideration.

Functional Cost Analysis

For more than 30 years the Federal Reserve Bank of Boston has sponsored a program of income and expense analysis for member banks in the First Federal Reserve District. Participating banks are grouped by percentage of time deposits. In a report covering the 1924 operations of 415 New England member banks, the Federal Reserve Agent commented as follows: ". . . net earnings decline as the proportion of time deposits rise on account of the greater cost of handling time deposits in banks equipped to do a commercial banking business. Chief among these is interest paid on deposits. Such charges are negligible in banks doing exclusively a commercial business but consume two-thirds of all current expenses in banks handling primarily savings accounts. The clerical cost of an organization intended to handle commercial deposits is so heavy that, when added to the interest costs incident to handling savings deposits, little balance is left for profits."

Such an analysis of over-all bank income and expense has value in a general way but is not as precise as an analysis of income and expense for each operating function. The latter furnishes information on the profitability of the time deposit function.

Unfortunately, functional cost accounting is not as common as would be desirable among small- and medium-sized banks. To complicate the problem further, functional cost accounting is an inexact procedure and the resulting data depends heavily upon the assumptions used. Because these assumptions can vary widely among various cost accountants, cost comparisons between banks or groups of banks lack validity to the degree that assumptions and procedures differ. Thus, no large body of comparative data is available.

Primarily to help banks obtain basic cost data, the Federal Reserve Bank of Boston has cooperated with those of its member banks whose total deposits range from $3.5 million to $50 million in developing a simplified functional cost study. The project started in 1958 and borrowed freely from a pioneer project in this field previously undertaken by the Federal Reserve Bank of New York. Maximum participation has been a primary goal, and for the study of 1961 operations, 80 banks supplied functional cost data which the Reserve Bank analyzed. About half of the banks in the eligible deposit range participated. The project has some recognized limitations but is, nevertheless, the only source of data that covers as many as 80 banks and uses identical assumptions for all. Although intended primarily for the internal use of the member banks themselves, the data has collateral research values for a paper such as this. Those students of the field who are interested will find in the appendix descriptions of the assumptions and procedures used.

Of the 80 banks which completed the study, 20 either had no time deposits or only small amounts. The remaining 60 banks, which provide the basis for the following discussion, averaged $6.3 million in time deposits — this amounted to about a third of total deposits on the average in the group. These banks paid an average effective rate of 2.55 percent on time deposits in 1961. Earnings on capital assigned to time deposits averaged 5.5 percent.

Had the posted rate been 3.5 percent with a presumed effective rate of 3.25 percent, the after-tax return on capital would have been 1.9 percent. With a 4 percent posted rate and a presumed effective rate of 3.7 percent, the return on capital would have been a minus .6 percent.

Proponents of time deposits for commercial banks would probably concede that the average bank which paid more than 3 percent on time deposits did so at the expense of an acceptable return on the capital assigned to the function. But, they ask, why rest the case on the performance of an average bank? What can banks expect to earn if they do a top job of generating high portfolio income and if they do an equally fine job of controlling expenses? Although such a favorable combination of factors is rarely present it represents a desirable goal, or an ideal.

Assume, then, that the total income of this ideal bank is the actual average total income of the 10 banks with the highest income, and that its expenses are those of the 10 banks with the lowest expenses, both in processing time deposits and in making each type of loan. Under these ideal circumstances, the net earnings after federal taxes would pay a return on capital assigned to time deposits of 8.6 percent, assuming a posted rate of 3 percent and an effective rate of 2.8 percent. With a 3.5 percent posted rate and an effective rate of 3.25 percent, the return on capital would have been 6.2 percent. And with a 4 percent posted rate and a 3.7 effective rate, the return on capital would have been 3.9 percent.

The disparity between the capital earnings from time and demand deposits is best indicated by comparing the foregoing data with the earnings on the capital allocated to demand deposits in the composite bank of the 60 included in the findings of the study. While the composite bank earned 5.5 percent on capital assigned to time deposits, it earned 8.5 percent on capital assigned to demand deposits.

With a 4 percent rate of interest, the return on capital is obviously unsatisfactory. The conclusion must be drawn that high rates are such a depressant on earnings that even under ideal conditions a satisfactory rate of return on capital is unlikely when rates exceed 3.5 percent. The overall desirability of time deposits for commercial banks cannot be established, however, without reference to several other aspects of the problem.

The first aspect relates to the differing effects upon banks when high time deposit rates are paid, depending upon the percentage of time deposits to total deposits. Banks with a small percentage of time deposits can attract new deposits by paying a maximum interest rate and can probably invest these new funds to advantage. Banks with a high percentage of time deposits already in existence feel themselves maneuvered into paying high rates at least as much to hold old deposits as to gain new ones. These old deposits have usually been invested at lower interest rates. Until the portfolio can be recast into higher earning assets, the effect of increased rates on time deposits is to depress earnings. How long this would continue would depend on loan demand, on the degree to which the maturities of low-earning assets permit liquidation and reinvestment at higher rates, and on the determination with which management pursues the recasting program.

Some banks accept low returns on time deposits as being part of what they regard as a temporary "holding" operation. Perhaps they anticipate a rise in loan rates, or a shift of low-earning assets into higher-earnings assets in the near future. They may be building a deposit base from which they soon expect to make loans when demand picks up. Other banks recognize that demand deposits would earn more money than time deposits but that there is a limit to what presently can be developed in the way of additional demand deposits. This low-return philosophy reflects something akin to the "loss leader" approach of the supermarkets. And, finally, some banks welcome more time deposits, even at high interest rates, because they believe that local competition or a present opportunity to invest in high-yielding consumer loans justifies such a course.

A willingness to accept lower returns on time deposits than on demand deposits seems justified unless the effort and the floor space devoted to time deposits can yield significantly greater returns if applied to another function.

The factors which argue in favor of seeking time deposits even at the cost of below-average profitability include these:

1. *Time deposits generate other business.* It is almost axiomatic that savings deposits help to develop consumer loans, mortgage loans, checking accounts, rental of safe deposit boxes, and the like. Customers respond to comprehensive service.

2. *"He profits most who serves best."* Commercial banks are uniquely able to offer broad and inclusive services. However, their growth depends as much upon meeting community needs as the growth of the community depends upon avail-

ability of all types of bank credit. To meet the needs of a growing economy banks must increase their capacity to lend. Time deposit departments are a means of acquiring funds to meet that need.

3. *Capitalizing on convenience.* One-stop banking is an advantage which commercial banks possess over their noncommercial competitors. Many bankers feel that this convenience is sufficient to overcome at least a one-half percent higher rate paid by competitors. Advocates for commercial banks argue that this factor of convenience is a distinct competitive advantage.

4. *Absorption of overhead.* The time deposit function itself absorbs part of the overhead otherwise attributable to demand deposits. More importantly, the loans and investments arising out of the time deposits absorb additional overhead. Earnings on capital and on demand deposits are increased to the degree that they are relieved of this overhead.

Implicit in all of these favorable considerations is the cost to the bank in terms of reduced rate of earnings associated with time deposits. A compromise must be reached in the selection of a rate that will hold old deposits, will attract new deposits to the degree these are needed to meet present and near-future loan demand, and which will still be within the capacity of the bank to meet, all factors being considered. In sound long-term planning it is difficult indeed to distinguish between unimaginative conservatism and imprudent expansion. But in a competitive and changing economy the need to make such decisions is the reality constantly facing the management of banks and other businesses.

In conclusion, commercial banks seek time deposits either because they see present or near-future opportunity to employ them profitably or because management is content to accept a moderate return on time deposits in the hope that this will be offset by certain favorable factors.

Appendix

A Comparative Analysis of Time Deposit Components

Since the end of World War II the increased detail in the published tabulations of time and savings deposits at Federal Reserve System member commercial banks has revealed the diverse nature of these accounts and has pointed up the continuing shifts in deposit structure.

The accompanying table shows the various classes of time and savings accounts at member banks for selected dates between 1940 and 1962. These accounts range in nature from temporary deposits to stable and long-term investment deposits. The low level of activity in most savings and time accounts suggests that they are principally used as liquidity or contingency reserves, as investments, or as accumulations of funds for lump-sum expenditures for durable consumer goods. Inevitably, these shades of difference in time and savings accounts complicate any explanations of growth in the total.

Regular Savings Accounts

Only individuals and nonprofit institutions are permitted to hold regular savings deposits, and notice may be required prior to withdrawal. These accounts have been traditionally, and are now, the largest component of total time deposits. They are held almost entirely by individuals. During much of the postwar period they constituted roughly 80 percent of the nation's total, but declined after 1960 as the time deposit component rose. At the end of 1962, regular savings accounts constituted about 72 percent of total savings and time deposits. About 47 million savings depositors at member banks held regular accounts amounting to $58.3 billion. It is estimated that these accounts

TABLE VII | TIME DEPOSITS AT ALL MEMBER BANKS (U. S.)

Selected Dates (Millions of Dollars)

Holder, or type of deposit	June 29 1940	June 30 1945	June 30 1950	June 6 1957	June 15 1960	June 30 1962	Dec. 28 1962
Individuals, partnerships and corporations:							
Savings	9,985	20,190	—	35,737	44,402	55,213	58,302
Accumulated for payment of personal loans	52	35	—	434	521	570	581
Christmas savings and similar accounts	113	159	—	498	557	580**	085**
Certificates of deposit	671	483	—	1,961	2,674	6,679**	7,745**
Open accounts of banks' own trust departments*	—	—	—	1,221	1,397	1,500**	1,570**
Other open accounts	637	388	—	1,033	983	3,094**	3,631**
Total	11,459	21,254	28,328	40,883	50,534	67,636	71,914
U. S. government and postal savings	59	102	182	302	234	274	243
States and political subdivisions	410	392	1,115	2,128	2,768	5,096	5,135
Domestic banks	134	44	26	46	98	223	235
Foreign banks	8	16	178	1,323	1,207	128	123
Foreign central banks and governments	—	—	—	—	—	2,156	2,424
Total	611	554	1,501	3,799	4,307	7,877	8,160
TOTAL	12,070	21,809	29,829	44,682	54,841	75,513	80,074
Time deposits as a percentage of total deposits	23.3	18.4	24.3	28.4	30.5	36.6	36.5

* Prior to 1949 these accounts were included in demand deposits.

** Data for Christmas savings, etc., certificates of deposit, open account trust departments and other open accounts for the dates in 1962 is estimated. At June 30 and December 28 the total for these accounts were shown in the call reports as "other time deposits of individuals, corporations, and partnerships." They aggregated $11.853 billion and $13.031 billion on these dates respectively.

Note: Details may not add to totals because of rounding.

TABLE VIII | TIME DEPOSITS AT MEMBER BANKS IN NEW ENGLAND

Selected Dates (Millions of Dollars)

Holder, or type of deposit	June 29 1940	June 30 1945	June 30 1950	June 6 1957	June 15 1960	June 30 1962	Dec. 28 1962
Individuals, partnerships and corporations:							
Savings	601	1,042	—	1,243	1,455	1,693	1,772
Accumulated for payment of personal loans	—	—	—	4	3	4	4
Christmas savings and similar accounts	9	10	—	27	31	37**	3**
Certificates of deposit	21	6	—	20	18	128**	134**
Open accounts of banks' own trust departments*	—	—	—	42	44	45**	47**
Other open accounts	9	4	—	34	19	57**	59**
Total	640	1,062	1,241	1,370	1,571	1,964	2,019**
U. S. government and postal savings	3	5	9	14	8	9	8
States and political subdivisions	4	1	5	11	17	54	72
Domestic banks	1	—***	—***	6	—***	4	5
Foreign banks	—	—	—	8	14	7	4
Foreign central banks and governments	—	—	—	—	—	48	54
Total	7	6	14	39	39	122	143
TOTAL	647	1,069	1,255	1,409	1,610	2,086	2,163
Time deposits as a percentage of total deposits	22.4	17.1	21.7	20.3	21.2	25.0	24.2

* Prior to 1949 these accounts were included in demand deposits.

** Data for Christmas savings, etc., certificates of deposit, open account trust departments and other open accounts for the dates in 1962 is estimated at June 30 and December 28. The total for these accounts were shown in the call reports as "other time deposits of individuals, corporations and partnerships." They aggregated $267 million and $243 million on these dates respectively.

*** Less than $500 thousand.

Note: Details may not add to totals because of rounding.

averaged about $1,240 in 1962 — representing almost triple the average amount in 1940. The 1962 average regular account in mutual savings banks is estimated by the National Association of Mutuals Savings Banks at $2281.

In New England, regular savings deposits represent a larger percentage of total time deposits than in the nation as a whole. At the end of 1962 they comprised about 85 percent, while the number of depositors was estimated at a little over two million and the size of the average account was estimated at $824. The average savings account at New England commercial banks has characteristically been below the national average because of the competition of other savings institutions, particularly mutual savings banks.

Christmas savings and similar accounts, and deposits accumulated for the payment of personal loans, have definite savings characteristics. The part of savings represented by certificates of deposit and other open accounts held by individuals also qualify for this category. These several classes of accounts have increased in importance at commercial banks in most regions in recent years. In 1962, with the new ceiling permitted on deposits held for one year, there undoubtedly was some shifting of savings to certificates and other open accounts from regular savings deposits — the bank preferring to offer the maximum rate in this form of contract. The national total of savings in these several classes of accounts is currently estimated to amount to between $6 and $7 billion. When added to the regular savings total it significantly increases the percentage of savings to total time deposits.

Certificates of Deposit

Time certificates of deposit, redeemable only after a specified date or after 30 days' written notice is given, are often used for the same purpose as savings deposits as noted above. A substantial portion of total time certificates, however, are of quite a different nature.

In June of 1957 certificates of deposit held by individuals, partnerships and corporations represented somewhat more than 4 percent of total time deposits. At the end of 1962 it is estimated that they had increased to about 12 percent. Ownership of these certificates today differs substantially by geographical area, as has been true in earlier periods. They have traditionally been the savings form offered by many banks to individuals; and in recent years, savings plans using certificates of deposit have been adopted by additional banks. In 1957 a Federal Reserve System tabulation showed that a large proportion of savings were held in this form by individuals in the Mid-West and in some southern states. At country banks in the St. Louis and Minneapolis Federal Reserve districts, certificates of deposit accounted at that time for 15 and 25 percent, respectively, of total time deposits. A survey of a group of banks in the Mid-West, conducted by *Bank News* in April, 1962, confirms their continuing popularity. Currently, it is estimated that individuals hold somewhat over three-quarters of the total amount of all certificates at member banks in the country classification, and about half the total at city banks. Corporations, state and local governments, and institutional holders account for most of the remainder, with foreigners and noncorporate businesses holding relatively small amounts.

Negotiable Certificates of Deposit — A Money Market Instrument

Certificates of deposit may be issued in negotiable or nonnegotiable form. In 1961 when compe-

tition for deposits became intense in the major money centers, the large New York City banks announced that they would attempt to secure short-term corporate funds that would otherwise be invested in such competing money market investments as Treasury bills or prime commercial paper. For this purpose, they offered interest-bearing negotiable certificates of deposit, generally in denominations of $100 thousand and over. Large deposits are usually represented by several certificates in denominations of $1 million. Issued by well-known banks, certificates are readily marketable and competitive with other market investments. Certificates of less widely known banks do not enjoy as broad a market and trade at higher rates. The development of this secondary market in negotiable certificates, which is centered in dealers in U.S. securities, has added breadth to the money market.

The outstanding amount of negotiable certificates traded as money market instruments has grown rapidly, and was given added impetus by the liberalization of Regulation Q at the beginning of 1962. A survey made in December, 1962, by the Federal Reserve System, reported some $6 billion outstanding. Of these about $2.2 billion had been issued by New York City banks, $900 million by Chicago banks, and $2.9 billion by large banks distributed over the rest of the nation. While the use of these certificates has increased sharply since their first issue in 1961, the growth has not been proportional in all Districts. Some of the large New England banks have adopted a passive attitude toward the issue of certificates. The Boston District reported only $159 million outstanding in December, 1962.

Although these certificates of deposit are held mainly by corporations, in some Districts important fractions of the total are held by states, municipalities, foreign entities and individual investors. Certificates were issued in negotiable form for many years prior to 1961, but were not traded as money market instruments until that time. Local trades have occurred on occasion, however.

Other Open Accounts

"Other" open accounts of individuals, partnerships and corporations are subject to written contracts that limit withdrawal to a specified date or to 30 days after notice in writing is submitted. These accounts represented about 2.3 percent of total time deposits in 1957, and are currently estimated to represent about 4 percent of the total. Corporations and institutions held about 40 percent of the total in other open accounts in 1957, while foreigners held about 30 percent. Holdings of individuals are similar in purpose to regular savings deposits and amounted to between 20 and 25 percent of the total in 1957. Satisfactory estimates for holders in 1962 are not possible because of lack of detailed information about shifts in form of individual savings. The percentage held by individuals has undoubtedly increased. The number of these accounts decreased during the war, but since 1945 they have expanded more rapidly and have increased significantly as a proportion of the nation's total time deposits.

Time Deposits of States and Political Subdivisions

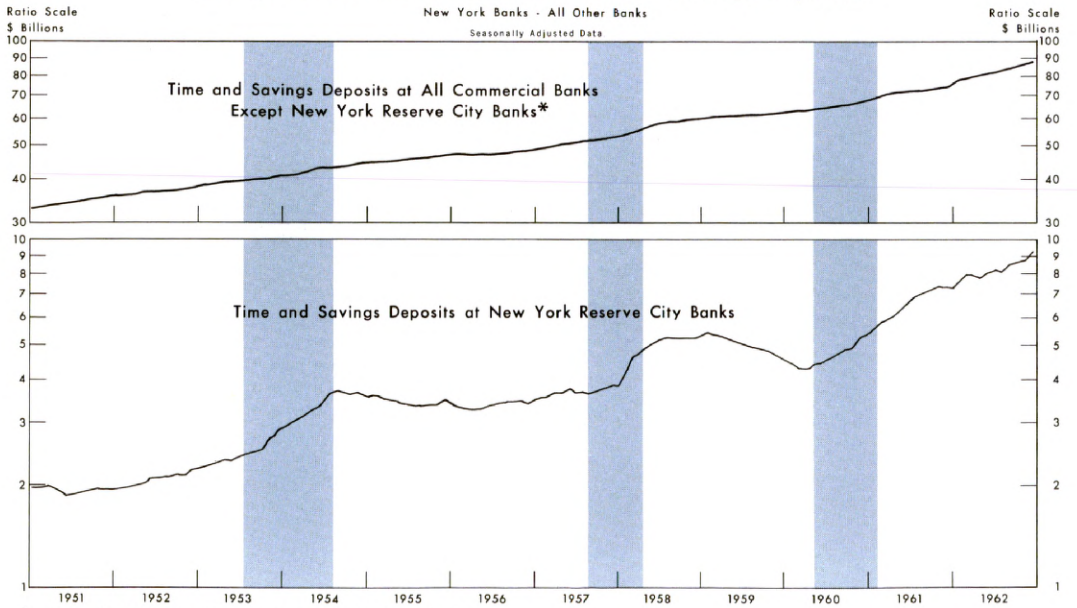
These deposits are scattered among a large number of banks. They result from the practice by governmental units of financing capital projects in advance of actual expenditure. The proceeds of borrowing in the capital markets are reinvested in time deposits or some alternative investment for the period during which the funds will be idle.

Time Deposits — Foreign Banks, Official Institutions, Governments

In a few large banks, principally in New York and San Francisco, time deposits of foreign banks constitute an important fraction of total time deposits. Boston banks, however, hold only a modest 2 percent of the total of these deposits. In the fall of 1962 the Congress passed Public Law 87-827 exempting for a period of three years the time deposits of foreign governments and financial institutions from the rate limitations of Regulation Q. Since then the amount of these deposits has shown a relatively large increase. The banks increased rates primarily on foreign deposits maturing in three months — a critically competitive category — to approximately the level of yields of short-term securities in the open market.

The time deposits of foreign banks, official institutions, governments and corporations, along with negotiable certificates of deposit, state and local government deposits and a portion of "other" open accounts, are usually held as alternatives to such short-term investments as Treasury bills, banker's acceptances or prime commercial paper. Conditions bringing about rising interest rates and pressures on time deposit positions also occur in conjunction with pressures on demand deposit positions. Rising short-term rates cause demand depositors — particularly corporations — to reappraise standards where minimum positions in de-

Comparison of Movements in Time and Savings Deposits



*Prior to July 28, 1962 these banks were designated as Central Reserve City Banks.
Last Wednesday of month.
Colored areas represent periods of business recession.

mand deposits are concerned. Marginal funds left with the commercial banks on a demand basis under these conditions are placed in time deposits or money market outlets.

In general, the bulk of these kinds of time deposits exhibits a considerable volatility and is responsive to changes in relative rates of return at banks and on liquid money market instruments. Corporate and foreign dollar balances are also subject to competition from sources abroad. The market for these balances is at times international in character. Time deposits, then, tend to show movements into and out of the commercial banks as business conditions and interest rates change within business cycles.

These movements are shown in the chart on page 55, which classifies time and savings deposits at all commercial banks outside New York City and at New York's Reserve City banks. In the latter case, time deposits are a heavy component of total time and savings deposits. Their behavior can be considered representative of this class of deposits. Savings deposits are dominant in the other group of banks.

Regular savings deposits do not show a comparable pattern of movement and tend to be somewhat less responsive than time deposits to changes in interest rates. These deposits have, however, been affected at times by external competition — that is, by the competition of other financial institutions and investment instruments, particularly those outside the scope of rate regulation.

When banks are classified by location — city or country — the banks falling into the country classification will be found to hold substantially larger proportions of savings to total time and savings deposits; currently the proportion is about 80 percent. City banks will show relatively smaller proportions, depending upon the size of the city. At principal money centers, such as New York and Chicago, the percentage is 45 and 63 percent respectively.

Time Deposit Income and Expense Relationships

Net earnings on time deposits obviously depend primarily on income and expense relationships. Nevertheless, differing assumptions made in functional cost accounting projects introduce variations in the results. Six cost accountants with six different sets of assumptions at work in the same bank would arrive at six different sets of cost figures. The over-all net earnings for the bank would be identical but the proportion of earnings assigned to capital and to time and demand deposits could vary appreciably. This fact must be understood to distinguish the cost data below from the cost data of other studies which have been made under different assumptions.

The simplified functional cost project sponsored by the Federal Reserve Bank of Boston has as a prime virtue uniformity of assumptions and procedures which increase the validity of inter-bank comparisons. It was designed for maximum participation. More than half of the banks in the $3.5 to $50 million deposit range prepared data covering 1961 operations and submitted this data to the Reserve Bank for summary and for calculation of comparative ratios. The following are some of the study's more important assumptions:

1. *Allocation of cash.* In the 1961 study, "Cash and due from other banks" was assigned to the time deposit function to the extent of 6 percent of time deposits. The remaining "cash and due" was assigned to demand deposits.

2. *Portfolio.* The remaining 94 percent of the time deposits was invested as earning assets in the portfolio, as was the balance of the demand deposits after deduction of its "cash and due." Total capital funds less fixed and "other" assets were also invested in the portfolio.

3. *Tax-exempt income.* Tax-exempt securities varied widely among the participating banks. To adjust this to a uniform basis all inter-bank comparisons in the functional cost project were made after calculation of federal taxes applicable to net earnings. In the present analysis, a 52 percent federal tax was presumed and all tax-exempt income was multiplied by 108 percent to raise its income to a pretax base. This made for before-tax comparability.

4. *Indirect costs.* Chief indirect costs were occupancy expenses and unallocable salaries and wages (34 percent and 31.9 percent, respectively, of total indirect costs). All indirect costs were allocated to functions on the basis of direct costs of each function. Time deposit interest, Federal Deposit Insurance Corporation insurance premiums, and investment counsel expense bore no indirect expense, however.

5. *Depreciation.* As listed in the federal tax reports.

6. *Capital assigned to time deposits.* It has been assumed here that there is $9 in capital funds per $100 in time deposits. The average insured commercial bank in the United States had an average capital base of $9.50 per $100 of total deposits. In actual practice banks have lower capital ratios on the average the higher their proportion of time to total deposits. Thus it has been assumed that the capital base under time deposits is slightly lower than the over-all bank average while the capital base under demand deposits is slightly higher.

To help insure that the assumptions were carried out uniformly the Reserve Bank prepared written

TABLE IX | TIME DEPOSIT PORTFOLIO COMPOSITION AND EARNINGS AVERAGE OF 60 BANKS

(All figures in percent of time deposits)

Assets required with time deposits	Distribution (1)	Yield Gross (2)	Yield Expenses (3)	Yield Net (4)	[col. (1) x col. (4)] Net return on investments (5)
Cash assets	6.00				0.0
U.S. government securities	27.18	2.99	0.16	2.83	.77
Municipal obligations	7.03	4.94*	0.16	4.78*	.34
Other investments	1.23	3.74	0.16	3.58	.05
Real estate loans	15.23	5.25	0.72	4.53	.69
Installment loans	18.59	9.08	3.58	5.50	1.02
All other loans	24.74	5.22	1.17	4.05	1.00
Total	100.00				3.87

*Yields on tax-exempt securities are adjusted to make them equivalent to before-tax yields.

instructions and sample worksheets covering a mythical bank. In one-day workshops held at the Federal Reserve Bank the procedures were discussed with those who were to be in charge of collecting the data. Particular stress was placed on allocation of the time of officers and staff because this usually represented around 40 percent of total expense for a bank.

Of the 80 banks which completed the study, 20 had either no time deposits or only small amounts. The remaining 60 banks averaged $6.33 million in time deposits, 31.23 percent of total assets. The average experience of these banks is utilized in the following analysis.

The asset allocation of the portfolio assigned to time deposits is shown in Table IX. The average yield of all earning assets was 4.12 percent, but since only 94 percent of time deposits are invested in the portfolio, time deposit funds earned an average of 3.87 percent. The same 4.12 percent rate of return was allocated to the applicable shares of demand deposits and capital funds under the "pool of funds" assumption.

Table IX shows the gross yield on each type of earning asset, expenses of acquiring the asset and the resulting net yield. The last column contains the contribution made by each type of asset to total income available to cover time deposit expenses, dividend payments and profits on capital funds.

Portfolio income of 3.87 percent from Table IX is carried to Table X, which shows the remaining income and expense items of the composite time deposit function of the 60 banks. It was assumed that there was a 9 percent base under time deposits, and that the income from these capital funds

TABLE X | 1961 TIME DEPOSIT INCOME AND EXPENSES AND RETURN ON CAPITAL

(All dollar figures are per $100 of time deposits)

	Composite of 60 Banks	Ideal Commercial Bank
Net portfolio income	$3.87	$4.48
Other time deposit income	.04	.05
Total income from time deposit function	$3.91	$4.53
Operating expenses of time department	.61	.45
TOTAL PORTFOLIO AND TIME DEPOSIT INCOME	$3.30	$4.08
Time deposit income before interest	$3.30	$4.08
Earnings on capital funds assigned to time deposits	.30	.34
Total time deposit earnings available for interest, taxes, and earnings	$3.60	$4.42
Return on capital at 3 percent posted rate:		
Total time deposit earnings available for interest, taxes, and earnings	$3.60	$4.42
Interest expense (presumed effective rate of 2.80%)	2.80	2.80
Net earnings before federal taxes	$ .80	$1.62
Presumed 52 percent federal taxes	.42	.84
Net earnings after federal taxes	$ .38	$ .78
RETURN ON CAPITAL AT 1:11 RATIO	4.2%	8.6%
Return on capital at 3½ percent posted rate:		
Total time deposit earnings available for interest, taxes, and earnings	$3.60	$4.42
Interest expense (presumed effective rate of 3.25%)	3.25	3.25
Net earnings before federal taxes	$ .35	$1.17
Presumed 52 percent federal taxes	.18	.61
Net earnings after federal taxes	$ .17	$ .56
RETURN ON CAPITAL AT 1:11 RATIO	1.9%	6.2%
Return on capital at 4 percent posted rate:		
Total time deposit earnings available for interest, taxes, and earnings	$3.60	$4.42
Interest expense (presumed effective rate of 3.70%)	3.70	3.70
Net earnings before federal taxes	−$ .10	$ .72
Presumed 52 percent federal taxes	− .05	.37
Net earnings after federal taxes	−$ .05	$ .35
RETURN ON CAPITAL AT 1:11 RATIO	− .6%	3.9%

added $.30 in earnings to each $100 of time deposits. Also shown in Table X are income and expenses of the "ideal" bank referred to on page 47. This ideal commercial bank is mythical and its net earnings are computed by using the net portfolio income of the 10 banks in the First District in the functional cost project having the highest income. From these earnings are subtracted the expenses of the 10 functional cost banks which had the lowest expenses for each type of expense. Obviously, such an ideal bank represents an unusually good income and expense relationship. This table, after combining the earnings of the time deposit functions and the earnings of capital assigned to time deposits in the composite bank and in the ideal bank, then reflects the net earnings before and after federal tax, and the return on capital when varying rates of interest are paid on time deposits.

Cost accounting is highly controversial. Different accountants might very likely wish to use different procedures from those used in this study. In particular, many would probably like to assign income from real estate mortgages to time deposits. Some might like to assign all or a portion of installment loans to time deposits. Still others would assign tax-exempt income to time deposits. All these procedures are defensible.

Two points must now be made, however: (1) although each procedure referred to above is defensible, it would be difficult indeed to get agreement among 60 banks as to what specific percentage of the various portfolio assets should be assigned to time deposits, and (2) although it would be clearly possible to assign income from high yielding assets to the time deposit function, and so put time deposits in a more favorable light, this will not alter over-all bank earnings in any way. Any advantage thus given to time deposits would be at the expense of earnings for demand deposits or capital.

Because of these considerations the procedure used in this study is the middle-of-the-road one of according the same treatment to capital funds and to time and demand deposits. This is done by assigning a uniform rate of portfolio return to each. This is the simple and unsophisticated approach. It better reflects the effect of interest expense upon over-all bank earnings. The use of alternative allocations within a bank is wholly feasible, but it would to that degree invalidate comparisons with other banks.

A frequently asked question is why the average commercial bank cannot pay 4 percent on its time deposits when savings banks are able to pay 4 and even 4.25 percent. Not all savings banks do. In 1961, for instance, all insured savings banks paid an effective rate of 3.6 percent, which suggests that the stated rate averaged about 3.9 percent.

Table XI compares the net earnings of the average insured savings bank with the ideal commercial bank. Study of the table indicates that even with this exceedingly favorable relationship, the ideal bank is unable to match the earnings of the average insured savings bank. Portfolio incomes are comparable, so are operating expenses, although in each case the performance of savings banks is more favorable. The wide difference in after-federal-tax earnings is caused in considerable part by the 52 percent tax on the earnings of the ideal bank and the much lower tax on the earnings of the average insured savings bank. The ideal commercial bank earned .48 percent of time deposits before taxes and had .23 percent left after federal taxes. In contrast, the comparable earnings of the composite insured savings bank before taxes were .6 percent of time deposits, of

TABLE XI | 1961 EARNINGS COMPARISON BETWEEN "IDEAL" COMMERCIAL BANK AND COMPOSITE INSURED MUTUAL SAVINGS BANK

(Amounts in percent of time and savings deposits)

	Ideal Bank	Composite Insured Savings Bank	Margin
Portfolio income	4.48	4.55	.07
Service charges and other income	.05	.05	.00
Total income	4.53	4.60	.07
Operating expenses	.45	.40	.05
Operating earnings	4.08	4.20	.12
Interest expense	3.60	3.60	.00
Net earnings before federal taxes	.48	.60	.12
Federal taxes*	.25*	.01*	.24
Net earnings after federal taxes	.23	.59	.36

*Presumed to be 52 percent for ideal bank; actual taxes paid by composite insured mutual savings bank.

which .59 percent of time deposits remained after federal taxes.

Obviously, this disparity in taxation accounts in the main for the lower earnings of the ideal bank. A contributing factor to the disparity in earnings, though of lesser magnitude, is that the ideal bank, by regulation, carried 5 percent of its time deposits as required reserve in 1961. Working cash needs usually increased this to 6 percent. By comparison, savings banks do not have reserve requirements and about 2 percent of the deposits usually suffice to provide for working cash. For this reason, savings banks can invest a higher percent of their deposits in earning assets.

A third advantage to savings banks is their larger average deposit. In 1960 a comparative analysis of the savings departments of 70 banks in the functional cost project and 80 Massachusetts mutual savings banks of approximately the same time deposit range showed average deposits at the savings banks to be $1,332 compared with $743 for average time deposits at the functional cost banks. No data is available to compare costs precisely but it would be a reasonable presumption that the larger average savings bank deposits are a plus influence on net earnings.

COMPARATIVE STATEMENT OF CONDITION

	DECEMBER 31st 1962	1961
ASSETS		
Gold Certificate Reserves	$ 963,845,811.80	$1,005,388,165.73
Federal Reserve Notes of Other Federal Reserve Banks	44,526,775.00	35,506,250.00
Other Cash	23,865,255.63	20,345,933.27
Discounts and Advances	447,000.00	935,000.00
U.S. Government Securities — System Account	1,472,910,000.00	1,350,880,000.00
Cash Items in Process of Collection	721,168,423.78	569,249,911.95
Bank Premises	3,205,436.31	3,554,801.61
Foreign Currencies	3,790,482.01	0
Other Assets	13,363,401.77	11,315,571.29
Total Assets	$3,247,122,586.30	$2,997,175,633.85
LIABILITIES		
Federal Reserve Notes	$1,796,816,275.00	$1,703,484,675.00
Deposits:		
Member Bank Reserve Accounts	828,816,662.81	789,011,743.51
U.S. Treasurer — Collected Funds	45,884,215.52	15,720,569.36
Foreign	12,220,000.00	12,985,000.00
Other	3,916,694.46	3,742,670.65
Total Deposits	890,837,572.79	821,459,983.52
Deferred Availability Cash Items	489,029,203.92	406,226,342.52
Other Liabilities	3,434,384.59	2,836,632.81
Total Liabilities	$3,180,117,436.30	$2,934,007,633.85
CAPITAL ACCOUNTS		
Capital Paid In	$ 22,335,050.00	$ 21,056,000.00
Surplus	44,670,100.00	42,112,000.00
Total Capital Accounts	67,005,150.00	63,168,000.00
Total Liabilities and Capital Accounts	$3,247,122,586.30	$2,997,175,633.85

COMPARATIVE STATEMENT OF EARNINGS AND EXPENSES

	1962	1961
Current Earnings:		
Advances to Member Banks	$ 165,245.69	$ 113,283.90
Foreign Loans on Gold	45,934.04	6,264.83
Invested Foreign Currency Balance	164,611.74	0
U.S. Government Securities — System Account	53,177,710.10	49,919,318.83
All Other	15,310.28	20,532.37
Total Current Earnings	53,568,811.85	50,059,399.93
Net Expenses	11,852,878.85	10,785,103.93
Current Net Earnings	41,715,933.00	39,274,296.00
Additions to Current Net Earnings:		
Profit on Sales of Government Securities (net)	102,782.30	184,955.68
All Other	42,532.98	842.22
Total Additions	145,315.28	185,797.90
Deductions from Current Net Earnings	208,816.44	2,835.27
Net Additions (or Deductions)	(63,501.16)	182,962.63
Net Earnings before Payment to U.S. Treasury	$41,652,431.84	$39,457,258.63
Dividends Paid	$ 1,296,551.92	$ 1,236,205.16
Paid U.S. Treasury (Interest on Federal Reserve Notes)	37,797,779.92	36,439,253.47
Transferred to Surplus	2,558,100.00	1,781,800.00
	$41,652,431.84	$39,457,258.63

VOLUME FIGURES for YEARS 1961 and 1962

	Volume in Pieces or Units (Daily Average)		Volume in Dollars (Annual Total)	
	1962	1961	1962	1961
Discounts and Advances	3	3	$ 702,173,000	$ 475,082,000
Currency Sorted and Counted	1,161,449	1,146,273	1,997,297,261	1,972,493,888
Coin Counted and Wrapped	4,434,637	4,317,414	109,846,400	107,248,450
Check Collections	1,370,821	1,274,662	87,146,725,772	82,023,632,273
Noncash Collections:				
Notes, Drafts, and Coupons (except U.S. Government)	4,722	4,456	469,466,605	499,744,025
Safekeeping of Securities:				
Pieces Received and Delivered	813	848	9,639,475,032	8,690,605,758
Coupons Detached	1,958	2,020	44,724,787	46,016,761
Orders to Sell or Buy Securities Executed for Member Banks	11	8	428,372,450	284,961,150
Transfers of Funds	541	482	99,406,410,925	88,266,639,324
Issues, Redemptions and Exchanges:				
U.S. Securities (Direct Obligations)	1,276	1,392	18,859,318,903	16,363,947,852
U.S. Savings Bonds	40,117	38,975	558,678,972	587,250,521
All Other	19	17	42,191,700	51,832,500
U.S. Government Coupons Paid (Direct Obligations)	2,581	2,827	194,461,683	197,919,757
Federal Taxes: Depositary Receipts and Direct Remittances	3,255	3,071	2,276,449,373	2,076,908,509
Currency Verified and Destroyed	215,024	226,171	73,699,000	78,934,000
Deposits and Withdrawals — Treasury Tax and Loan Accounts	537	541	7,705,011,730	7,097,216,299

Summary of Principal Changes

Statement of Condition

Total assets of this bank at the end of 1962 amounted to $3.2 billion — about 8 percent higher than a year ago. The principal assets comprised $964 million of gold certificates and $1.5 billion of U.S. government securities. On the liability side, Federal Reserve notes in circulation amounted to $1.8 billion and deposits $891 million.

During the course of the year the major balance sheet items showed relatively modest changes. Interdistrict transfers by member banks in several Federal Reserve districts in response to year end adjustments were unusually large, however, and resulted in reallocation of this bank's participation in U.S. securities in the System Open Market account and in gold certificates reserves.

Uncollected cash items recorded a relatively sharp rise as check float set a new record both in the nation and the region for the year end. A substantial increase in the volume of checks and processing delays, resulting in part from bad weather over much of the nation, disrupted collection schedules.

Foreign currencies, a new account, stood at $3.8 million and reflected the participation of this bank in several foreign currencies held in the Reserve System's investment account. Reciprocal currency agreements were made by the System with a number of foreign central banks beginning in February, 1962. These mutual credit facilities have been used to help offset abnormal pressures on the dollar.

Federal Reserve notes, member bank reserve accounts and U.S. government deposits accounted for the bulk of the change in liabilities. The increase in note circulation, moderately more than in the nation, continued to reflect adjustment by member banks to the System's policy of crediting all vault cash to required reserves. Additionally, this bank's notes seem to be increasingly used for trade and travel in other Districts.

Total capital accounts increased about 6 percent, or $3.8 million, and reflected both the purchase of additional Reserve Bank stock by member banks and the amount transferred to surplus to maintain the account at twice paid in capital. At the year end these accounts were a little more than 2 percent of total resources.

Earnings and Expenses

Total current earnings of the bank rose $3.5 million, owing primarily to a $3.2 million increase in interest earned on the bank's share of U.S. government securities held in the System Open Market account. Although the bank's holdings were higher throughout most of the year, some part of the increase is accounted for by a better rate of return on the portfolio. Most other earnings sources showed relatively small increases.

Net expenses rose about $1 million. Although virtually all expense items were larger, the major increase — $400 thousand — was in salary and wage payments. In addition the cost of new Federal Reserve notes was about $200 thousand higher.

Net earnings after all adjustments totaled $41.7 million, about $2 million above 1961. About $1.3 million was paid to member banks as their statutory dividend on Federal Reserve Bank stock at a rate of 6 percent. Of the remainder, $2.5 million was transferred to surplus and $37.7 million paid to the Treasury as an interest charge levied by the Board of Governors under Section 16 of the Federal Reserve Act on Federal Reserve notes not secured by gold certificates.

Volume of Operations

In most departments of the bank, the volume of operations continued to expand in 1962. During the year more than 344 million checks were processed, amounting to $87 billion — an increase over the previous year of 7.5 percent in number and 6 percent in dollar volume. Amount encoded checks received for processing on electronic equipment increased from a daily average of 10 thousand in January to approximately 300 thousand in December. The total volume of checks handled by electronic high-speed equipment during 1962 was 31 million, as compared with 7 million items in 1961.

The dollar volume of currency and coin received, counted, and sorted by this bank also continued its steady increase. Shipments of currency and coin to and from member banks expanded significantly, both in number and value. In the course of the year armored car service provided by this bank was increased to include almost all New England banks that make large shipments of currency.

The activities of the Fiscal Agency Department increased considerably during 1962, both in number of units handled and in dollar volume. This is due partly to the increased needs of the Treasury Department, and partly to the Treasury's efforts to extend the maturity of the outstanding debt. The Treasury continued its policy of advance refundings as well as straight exchanges and cash offerings, and once again made use of *strip* bills.

Wire transfer of funds for member banks expanded beyond the record activity of 1961. During the year, these transfers increased by more than 10 percent in both number and dollar volume. A major factor in this growth is the greater participation of member banks in the federal funds market.

In 1962 the dollar volume of member bank borrowings at the discount window, although moderately higher than the nominal level of the previous year, remained substantially below the level prevailing throughout the 1950's. This was principally the result of a continuing policy of active monetary and credit ease, and a further reflection of the increasing use of the federal funds market by more of the district's member banks.

Over the year as a whole, the larger volume of work was carried on with only a slight increase in the number of employees. The staff averaged 1,383 during 1962, of which 1,240 were full-time employees and 143 were part-time employees.

Changes in Directors and Officers

Directors

At the 38th Annual Meeting of Stockholders of the Federal Reserve Bank of Boston held in October, 1962, it was announced that Ostrom Enders, Chairman of the Hartford National Bank and Trust Company, Hartford, Connecticut, had been elected a Class A Director for a term of three years beginning January 1, 1963. Mr. Enders succeeded William D. Ireland, Chairman of the Executive Committee of State Street Bank and Trust Company, Boston, whose term expired December 31, 1962.

Also announced was the election of John R. Newell, President of the Bath Iron Works Corporation, Bath, Maine, as a Class B Director for a similar term. Mr. Newell succeeded Milton P. Higgins, Chairman of Norton Company, Worcester, Massachusetts, a Director of the Boston Reserve Bank since January 1, 1957.

At a special election held in November, 1962, James R. Carter, President of the Nashua Corporation, Nashua, New Hampshire, was elected a Class B Director of the Bank. Mr. Carter was elected to fill the unexpired term of the late Eugene B. Whittemore, a Reserve Bank Class B Director from January 1, 1959, until his death on July 31, 1962.

In the same month, the Board of Governors of the Federal Reserve System appointed Wilbur H. Norton, President of Gorham Corporation, Providence, Rhode Island, as a Class C Director for a three year term beginning January 1, 1963. Mr. Norton succeeded Nils Y. Wessell, President of Tufts University, Medford, Massachusetts, who served as Chairman of the Boston Reserve Bank's Board from January 1, 1961 until the expiration of his term on December 31, 1962. Erwin D. Canham, Editor of the Christian Science Monitor, Boston, and former Deputy Chairman of the Bank's Board, was designated Chairman for 1963 by the Board of Governors. William Webster, President of the New England Electric System, and a Director of the Bank since January 1, 1961, was designated Deputy Chairman for the same period.

Officers

During 1962 the Reserve Bank lost two senior officers through special service retirement. On July 31, Dana D. Sawyer, Vice President, retired after almost 28 years of service to the Bank. Mr. Sawyer was named Vice President in charge of the Bank's fiscal agency operations in 1956, a position he held until his retirement.

Benjamin F. Groot, Vice President in charge of the Bank Examination Department since 1957, retired on December 31, 1962. Mr. Groot served continuously in that Department after joining the Bank staff in 1933.

On January 1, 1962, Luther M. Hoyle, Jr., became Assistant Vice President in the bank's Examination Department. In December, Mr. Hoyle was named Vice President in charge of bank examinations, effective January 1, 1963, to succeed Mr. Groot. Effective the same date, Lee J. Aubrey, former Senior Examiner, was appointed Assistant Vice President to assume the responsibilities previously held by Mr. Hoyle.

On August 1, 1962, G. Gordon Watts, Assistant Vice President, was named Vice President in charge of fiscal agency operations to succeed Mr. Sawyer and with responsibilities in the emergency program. On the same date, Jarvis M.Thayer, Jr., Assistant Cashier, became Assistant Vice President in charge of accounting, expense and other functions. Eugene M. Tangney, formerly Manager of the Bank's Planning Department, was appointed Assistant Cashier with responsibilities in planning, data processing, printing and files.

Member of Advisory Council

The Board of Directors of the Federal Reserve Bank of Boston selected Lawrence H. Martin, President of The National Shawmut Bank of Boston, to serve during 1963 as the member of the Federal Advisory Council representing the First Federal Reserve District. Mr. Martin succeeded Ostrom Enders of Hartford, Connecticut, whose third successive term as Federal Advisory Council member expired December 31, 1962.

Federal Reserve Bank of Boston

Directors

January 1, 1963

	ELECTED or APPOINTED
ERWIN D. CANHAM, *Chairman of the Board and Federal Reserve Agent; Editor,* The Christian Science Monitor, Boston, Massachusetts	1959
WILLIAM WEBSTER, *Deputy Chairman of the Board; President,* New England Electric System, Boston, Massachusetts	1961
JAMES R. CARTER, *President,* Nashua Corporation, Nashua, New Hampshire	1962
OSTROM ENDERS, *Chairman of the Board,* Hartford National Bank and Trust Company, Hartford, Connecticut	1963
WILLIAM M. LOCKWOOD, *President,* The Howard National Bank and Trust Company, Burlington, Vermont	1959
ARTHUR F. MAXWELL, *President,* The First National Bank of Biddeford, Biddeford, Maine	1958
JOHN R. NEWELL, *President,* Bath Iron Works Corporation, Bath, Maine	1963
WILBUR H. NORTON, *President,* Gorham Corporation, Providence, Rhode Island	1963
WILLIAM R. ROBBINS, *Vice President and Controller,* United Aircraft Corporation, East Hartford, Connecticut	1960

MEMBER OF FEDERAL ADVISORY COUNCIL

LAWRENCE H. MARTIN, *President,* The National Shawmut Bank of Boston, Boston, Massachusetts

Officers **January 1, 1963**

GEORGE H. ELLIS, *President*
EARLE O. LATHAM, *First Vice President*

D. HARRY ANGNEY, *Vice President*
ANSGAR R. BERGE, *Vice President*
LUTHER M. HOYLE, JR., *Vice President*
OSCAR A. SCHLAIKJER, *Vice President and General Counsel*
CHARLES E. TURNER, *Vice President*
G. GORDON WATTS, *Vice President*
JOHN E. LOWE, *Cashier*
STANLEY B. LACKS, *General Auditor*
PARKER B. WILLIS, *Economic Advisor*
PAUL S. ANDERSON, *Financial Economist*

LEE J. AUBREY, *Assistant Vice President*
WALLACE DICKSON, *Assistant Vice President*
ROBERT W. EISENMENGER, *Industrial Economist and Acting Director of Research*
LORING C. NYE, *Assistant Vice President*
LAURENCE H. STONE, *Secretary and Assistant Counsel*
JARVIS M. THAYER, JR., *Assistant Vice President*
RICHARD A. WALKER, *Assistant Vice President*
LOUIS A. ZEHNER, *Assistant Vice President*
WESTON L. BONNEY, *Assistant Cashier*
CHARLES H. BRADY, *Assistant Cashier*
RIPLEY M. KEATING, *Assistant Cashier*
RICHARD H. RADFORD, *Assistant Cashier*
EUGENE M. TANGNEY, *Assistant Cashier*