

## Certificates of Deposit\*

During the past two years the financial community has witnessed the extraordinary growth of a new money market instrument: the negotiable time certificate of deposit. While certificates of deposit existed for many years prior to 1961, they were offered only on a relatively small scale. Indeed, many commercial banks were unwilling to issue certificates to corporate customers or, in fact, to accept time deposits in any form from corporations. The early certificates did achieve some importance in areas where they were aggressively offered, but they failed to acquire national significance. They were often non-negotiable, either by written notice on the face of the instrument or by tacit understanding between the issuing bank and its customer. Even if they were negotiable, transfers of these early certificates were severely limited by the lack of a secondary market.

In February 1961, however, a large New York City commercial bank announced that it would offer negotiable certificates of deposit to both its noncorporate and corporate customers. At the same time, a Government securities dealer indicated that he would maintain a secondary or trading market for these new instruments. Shortly thereafter, many other commercial banks throughout the country began to bid for time deposits by offering negotiable certificates of deposit to corporate and other customers. At the same time, other Government securities dealers began to participate in the secondary market. The two years since 1961, in which the growth of corporate cash flows outstripped the pace of business expansion, have provided a favorable atmosphere for the growth of the new instrument. By December of last year the volume of time certificates of deposit outstanding totaled more than \$6 billion, of which about two thirds represented corporate deposits (see tables on the following pages).<sup>1</sup> More recently, some estimates have put the total outstanding at about \$8 billion.

\* Richard C. Fieldhouse had primary responsibility for the preparation of this article. For a further discussion, see his *Certificates of Deposit*, Bankers Publishing Company, Boston, 1962.

<sup>1</sup> Results of a special Federal Reserve survey of 410 member banks were reported in the April 1963 *Federal Reserve Bulletin*, pp. 458-68.

### THE OFFERING OF CERTIFICATES AND REGULATION Q

Certificates were offered primarily in order to enlarge the issuing bank's lending power. The availability of reserves for the banking system as a whole is of course essentially determined by Federal Reserve policy. The individual banker could anticipate, however, that the offering of certificates would enlarge his share of total reserves by attracting a larger share of total deposits.

The offer of certificates also represented an attempt to increase the stability of deposits. Deposit totals had been increasingly subject to wide fluctuations as bank customers, especially corporate treasurers, became more adept in the methods of "scientific" cash management. Bankers felt that the money market character of the new certificates would enable them to compete for the interest-sensitive funds that corporations, state and local governments, and other public bodies were putting into the short-term securities markets. The time deposit funds thus acquired would become available for bank use during the life of the certificate, thereby providing a relatively stable pool of funds which would safely permit the extension of loan and investment maturities. This relative stability would be enhanced in cases where maturing certificates were rolled over into new certificates.

Such results, however, were by no means assured. The maximum interest rates payable to domestic depositors under Regulation Q of the Board of Governors of the Federal Reserve System posed the threat that the demand for new certificates would fade if money market rates approached the "ceilings". In such circumstances, outstanding certificates would be redeemed at maturity as depositors sought more attractive rates elsewhere. During 1961, therefore, bankers approached the issuance of certificates cautiously, and often limited the amount they were willing to create. Toward the end of that year, three-month Treasury bill rates edged upward and exceeded the 2½ per cent ceiling in effect for three- to six-month time deposits. As a result, commercial banks could no longer offer certificates of these maturities at competitive rates. (The 1 per cent ceiling on 30- to 89-day time deposits has effectively forestalled the issuance of certificates

**Table I**  
**CERTIFICATES OF DEPOSIT OUTSTANDING ON SELECTED DATES, BY DENOMINATION**  
 In millions of dollars

Denomination	Total certificates outstanding	Distribution by total deposits of issuing banks				Distribution by issuing banks' volume of certificates outstanding		
		Under \$100 million	\$100-\$500 million	\$500-\$1,000 million	\$1,000 million and over	Under \$10 million	\$10-\$50 million	\$50 million and over
<b>December 5, 1962</b>								
All denominations .....	6,181	296	1,400	1,744	2,742	839	1,336	4,005
Denominations of:								
\$500,000 and over .....	4,606	69	832	1,225	2,480	326	844	3,435
\$100,000 to \$500,000 .....	978	94	321	352	211	240	309	429
Less than \$100,000 .....	597	133	247	167	51	273	183	141
<b>December 30, 1961</b>								
All denominations .....	3,223	151	690	804	1,578	430	710	2,083
Denominations of:								
\$500,000 and over .....	2,156	25	354	449	1,329	144	400	1,613
\$100,000 to \$500,000 .....	614	37	205	234	117	151	193	270
Less than \$100,000 .....	330	67	127	121	15	134	113	83
<b>December 31, 1960</b>								
All denominations .....	1,095	139	366	477	114	306	329	461
Denominations of:								
\$500,000 and over .....	450	28	156	235	31	85	137	228
\$100,000 to \$500,000 .....	328	49	118	138	23	107	99	122
Less than \$100,000 .....	265	61	92	104	8	111	93	60

Source: Board of Governors of the Federal Reserve System. For 1960 and 1961, the totals reported for denominational ranges are smaller than over-all totals, because some banks were unable to provide a breakdown for these years.

of this term at any time in recent years.) Only the six months' or longer certificate, on which a 3 per cent maximum rate applied, remained competitive. Even in this maturity category, certificates began to lose their investment appeal as rates on six-month Treasury bills approached 3 per cent. Banks faced the prospect of losing the sizable time deposits that they had built up through the issuance of negotiable certificates.

On January 1, 1962, the schedule of maximum rates under Regulation Q was raised. The ceiling for six-month time deposits was raised from 3 to 3½ per cent, and a 4 per cent ceiling was placed on a new maturity category of twelve months or longer. Rates for 30- to 89-day and 90-day to six-month deposits were left unchanged at 1 and 2½ per cent, respectively. These new ceilings have permitted commercial banks to issue six months' or longer certificates at competitive rates, but not shorter certificates. The possibility remains, of course, that ceiling rates under Regulation Q may at some point again limit the banks' ability to attract, or retain, interest-sensitive money.

#### NEW CERTIFICATES

Certificates of deposit are designed to compete for funds that have already found, or are seeking, employment in

the short-term securities markets. For this reason, bankers are reluctant to issue certificates if there is reason to believe that the customer plans to draw down his demand balances below "normal" levels in order to purchase a certificate. There is, of course, no desire to pay interest for funds that ordinarily would be held as noninterest-bearing demand deposits. Most banks, to avoid such competition with normal balances, have set minimum limits to the size of the individual certificates they will issue.<sup>2</sup> These limits are frequently related to bank size. As bankers to national corporations and other large organizations, the money market banks generally issue certificates in denominations no smaller than \$0.5 million or \$1.0 million. Smaller banks issue certificates for \$100,000 or less. It is felt that these relatively high dollar limits discourage large-scale shifts out of demand balances. Any funds available in these amounts, over and above the customer's operating requirements, probably

<sup>2</sup> Upper limits to individual certificate denominations are a matter of concern only to relatively small banks. These banks are often unwilling to issue large certificates, for they believe that by doing so their deposit totals might become subject to the decisions of a few customers who may not wish to renew maturing certificates. For the large money market banks, in contrast, even very sizable certificates are not likely to exert an important influence on deposit totals.

have already found employment in the short-term securities markets.

The deposit of time funds at commercial banks is guided both by interest rate considerations and by bank-customer relationships. Many corporations prefer to place funds only with banks at which they maintain working balances or important credit lines. Within this framework of bank-customer relationships, these firms put their funds with the banks offering the highest certificate rates.<sup>3</sup> Some corporations, in addition to setting a limit on their over-all certificate holdings, have set limits to their holdings of certificates of individual banks. These limits are often directly related to the importance of each bank within the pattern of the corporation's over-all banking relationships. Such corporate guidelines apply not only to new certificates acquired by the placement of time deposits, but also to the purchase of certificates in the secondary market. On the other hand, some corporations are guided almost entirely by interest rate considerations in their placement of time funds. They may go rather far afield to locate banks offering the highest certificate rates.<sup>4</sup> These differing approaches to the placement of time funds seem to be related to the preferences of individual investment officers rather than to the nature of the corporation itself.

The frequent preference for the certificates of banks with which "important" account relationships exist has tended to create two classes of certificates: "prime" and "nonprime". These designations do not necessarily imply evaluations of bank soundness, but generally are appraisals of the relative marketability of bank certificates. Prime certificates are those that many large corporations purchase for their certificate portfolios; they are issued by large, nationally known banks, commonly called prime-name banks. Since a relatively large number of the most active participants in the certificate market are authorized by their investment committees to buy these certificates, such instruments can be sold and resold in the market more quickly than those of less well-known or nonprime name banks. Many observers recognize degrees within the prime category itself; some prime certificates are

"more prime" than others, i.e., more readily marketable.

The lesser marketability of nonprime certificates is reflected both in the interest rates at which they are originally issued and in the rates at which they trade in the secondary market. Smaller commercial banks are obliged to offer certificates at rates generally  $\frac{1}{8}$  to  $\frac{1}{2}$  of 1 per cent higher than those offered by prime money market banks. In the secondary market, nonprime certificates are usually traded at rates from 5 to 25 basis points ( $\frac{1}{20}$  to  $\frac{1}{4}$  of 1 per cent) above rates on prime certificates of comparable maturity. This spread may be larger if the denomination of the certificate is less than \$1 million, since the large corporations active in the secondary market usually avoid small denominations unless interest rates provide an incentive for their purchase. The certificates of many strictly regional banks, though negotiable, are essentially nonmarketable. Unless they carry unusually high coupon rates, they are not likely to enter the secondary market, since dealers have no desire to acquire instruments for which there is only limited likelihood of resale. Normally, therefore, such certificates must be held until maturity.

Market rates for prime certificates are often about  $\frac{1}{4}$  of 1 per cent higher than rates for Treasury bills of comparable maturity.<sup>5</sup> Spreads between prime and nonprime certificates and, more generally, between certificates and Treasury bills vary from time to time, chiefly in response to changing appraisals of the outlook for short-term interest rates. These spreads tend to narrow when a trend toward lower interest rates (higher prices) is anticipated. At such times, market participants feel more assured of the relative marketability of higher yielding (though less liquid) instruments—e.g. certificates as compared with Treasury bills. Accordingly, they bid actively for these higher yielding instruments in order to maximize income and with an eye to their greater potential for future rate profits. When higher interest rates (lower prices) are expected, instruments providing a lesser degree of liquidity become relatively less attractive and spreads tend to widen.

#### THE SECONDARY MARKET

The secondary market for certificates has expanded as the volume of outstanding certificates has mounted. Today most Government securities dealers make markets

<sup>3</sup> There is no evidence that large corporations expect favored rates from their banks of account when these banks are not actively seeking time deposit funds.

<sup>4</sup> Occasionally, a bank aggressively seeks time deposit funds outside its normal sphere of customer contacts by offering its certificates, both directly and through brokers, at particularly attractive rates. The deposits thus gained will in all likelihood be withdrawn at the maturity of the certificate if issuing rates for new certificates are lowered or permitted to become less competitive, compared with other short-term rates. This very aggressive offering of certificates has been an important source of deposits to the relatively few banks that have pursued this technique.

<sup>5</sup> Certificates of deposit are issued and traded on a yield-to-maturity basis while Treasury bills are issued and traded at a rate of discount from face amount. The rate-of-discount basis understates the actual investment return of Treasury bills. Hence, comparisons of market rates overstate the actual yield differential between Treasury bills and certificates.

in certificates. While only fragmentary statistical information on the secondary market is available, it is likely that dealers' inventories of certificates have ranged between \$100 million and \$500 million during the past few months, with an average level probably between \$200 million and \$250 million. The daily volume of certificate trading by dealers has varied widely, probably ranging on most days between \$15 million and \$75 million, with an average of perhaps \$20 million to \$30 million. This compares with inventories of United States Government obligations maturing within one year (largely Treasury bills) which range between \$2.7 billion and \$4.0 billion, with daily trading volume typically ranging between \$1.1 billion and \$1.8 billion during the fourth quarter of 1962.

Despite its moderate size, the certificate market is broad enough to assure certificates a considerable degree of liquidity, especially if they are prime or nearly prime. Most corporations with certificate holdings apparently view them as a source of secondary liquidity, and rely on their holdings of short-term Treasury securities to provide funds for emergency needs. Day-to-day adjustments between cash and short-term investments are likely to be conducted in the Treasury securities market, either through outright purchase or sale or via repurchase arrangements with United States Government securities dealers. In these circumstances, certificates need not be sold until it is convenient to do so. In fact, many corporations hold their certificates until maturity and rarely, if ever, enter the secondary market; it is enough to know

that the certificates can be sold if necessary. (Other firms, for reasons to be described shortly, are much more active in the certificate market.) Of course, the liquidity of time certificates has not been tested in a period of marked decline in general liquidity and rising interest rates, when perhaps many holders would be seeking to reduce their certificate commitments.

Dealers' spreads in certificate trading (the difference between bid and offered rates) recently have been about 3 to 5 basis points, which amounts to \$75-\$125 per million dollars for a 90-day maturity. By comparison Treasury bill trading spreads usually range between 1 and 3 basis points. Certificate trading spreads have less bearing on dealer profits if the certificate has been part of the dealer's inventory for a number of days or weeks. In these cases, trading profits—as for other instruments—are increasingly related to interest accruals, financing costs, and any movement of short-term interest rates.

Dealers not only maintain a spread in favor of certificates, compared with Treasury bills, but also take into account the rates at which banks are currently issuing new certificates. For example, if prime-name banks are offering six-month certificates at  $3\frac{1}{8}$  per cent (i.e., 3.125 per cent), a dealer may not wish to bid lower in rate than 3.20 per cent for a certificate of this maturity. His bid must be high enough above bank-issuing rates to permit him to offer the certificate at a rate (sale price)—in this example, probably about 3.15 per cent—that would provide him with a trading profit.

Table II  
CERTIFICATES OF DEPOSIT OF \$100,000 AND OVER OUTSTANDING  
ON DECEMBER 5, 1962, BY CATEGORY OF ORIGINAL PURCHASER

In millions of dollars and in per cent of total

Purchaser	Total certificates outstanding		Distribution by total deposits of issuing banks								Distribution by issuing banks' volume of certificates outstanding					
			Under \$100 million		\$100-\$500 million		\$500-\$1,000 million		\$1,000 million and over		Under \$10 million		\$10-\$50 million		\$50 million and over	
			Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
All purchasers .....	5,584	100	163	100	1,153	100	1,577	100	2,691	100	566	100	1,153	100	3,864	100
Corporate and other businesses.....	3,851	69.0	78	47.9	690	59.8	963	61.1	2,121	78.8	309	54.6	699	60.6	2,842	73.6
Individuals .....	143	2.6	11	6.7	54	4.7	48	3.0	30	1.1	32	5.7	35	3.0	76	2.0
States and political subdivisions ..	867	15.5	65	39.9	303	26.3	350	22.2	149	5.5	174	30.7	321	27.8	372	9.6
Foreign governments, central banks, international financial institutions .....	348	6.2	—	—	25	2.2	42	2.7	283	10.5	17	3.0	38	3.3	294	7.6
Other foreign .....	41	0.7	—	—	7	0.6	5	0.3	29	1.1	3	0.5	9	0.8	30	0.8
All other .....	335	6.0	9	5.5	75	6.5	169	10.7	82	3.0	31	5.5	52	4.5	252	6.5

Source: Board of Governors of the Federal Reserve System.

**Table III**  
**CERTIFICATES OF DEPOSIT OF \$100,000 AND OVER OUTSTANDING**  
**ON DECEMBER 5, 1962, BY MATURITY**  
 In millions of dollars

Maturity	Total certificates outstanding	Distribution by total deposits of issuing banks				Distribution by issuing banks' volume of certificates outstanding		
		Under \$100 million	\$100-\$500 million	\$500-\$1,000 million	\$1,000 million and over	Under \$10 million	\$10-\$50 million	\$50 million and over
All maturities .....	5,584	163	1,153	1,577	2,691	566	1,153	3,864
Over one year .....	540	24	86	144	286	56	87	397
One year .....	1,304	54	372	477	402	187	341	776
Nine months to one year .....	931	10	65	133	723	33	81	818
Six to nine months .....	2,637	67	564	769	1,238	258	576	1,804
Less than six months .....	175	10	67	55	43	33	71	71

Source: Board of Governors of the Federal Reserve System.

The secondary market has performed an important function in providing certificates of less than six months' maturity to those organizations that prefer to hold only very short-term instruments. Since the maximum rates set under Regulation Q have effectively prevented banks from issuing short-term certificates, the market has provided the only means whereby investors can acquire short-term certificates at attractive rates. Buyers of such certificates in the secondary market may form the nucleus of a ready demand for certificates with original maturities of less than six months, if banks should again be able to offer such certificates at rates which are attractive, relative to other short-term instruments.

Some corporations, in fact, have made a practice of acquiring certificates maturing in six months or more, in order to take advantage of profit potentials that may develop when, with the passage of time, the certificates become due in less than six months. These corporations will offer their certificates for sale at lower rates (higher prices) than those at which they were acquired, thus establishing a profit over and above the interest earned during the period the certificates were held. The 2½ per cent maximum issue rate for 90-day to six-month certificates in effect provides a floor for rates of this maturity in the secondary market. Market rates have been sufficiently above this floor to permit considerable leeway for the establishment of rate profits. Corporations that employ this technique assume, of course, the risk that market rates may not move as expected. Those who favor this means of increasing their investment return usually obtain six-month certificates with attractive maturity dates, such as a tax or dividend date. Some dealers have purchased cer-

tificates that they originally prompted their customers to acquire; in this way, the dealer can acquire certificates in the volume he desires, in order to establish rate profits as described above. (Many banks, including the large money market banks, will not issue certificates to securities dealers.) This technique for increasing the effective return on certificate holdings enables banks to tap, at one step removed, the short-term funds for which they cannot compete directly, because of the ceiling rates prescribed by Regulation Q.

#### CONCLUDING COMMENTS

The successful offering of certificates of deposit has demonstrated that commercial banks can effectively compete for interest-sensitive funds, particularly those of corporations. It has also contributed importantly to the shift in deposit structure toward a heavier proportion of time deposits, which has tended to permit the extension of bank loan and investment maturities. As long as market interest rates remain below the Regulation Q ceilings, certificates are likely to experience further growth and to play an increasingly important role in providing funds for investing and lending purposes. If the issuance of new certificates were curtailed for any reason, the volume of certificates would decline, but only as outstanding certificates mature and are not replaced. The drain on deposits would thus be spread over a period of months. Banks experiencing this net certificate reduction would, of course, have to remain alert to the liquidity pressures that might be occasioned by these deposit withdrawals.

Certificates have also had an influence on the cos

structure of the banking industry. Interest expenses have mounted as a result of both the enlarged volume of time and savings deposits and the higher rates paid on such deposits. In their annual reports to stockholders for 1962, many commercial banks pointed to higher deposit-interest costs as a significant factor contributing to higher bank expenses during the year. Certificate interest expenses, per deposit dollar, probably have been lower than those of savings deposits, since certificate rates, partly reflecting the value of the instrument's negotiability, are often lower than the rates paid for savings deposits. Certificate rates are also more flexible than those on savings deposits. They may be raised or lowered in response to money market rates and, most importantly, in response to the individual bank's desire for time deposit funds; by contrast, interest rates for savings deposits tend to be relatively inflexible. While certificate rates may dem-

onstrate upward flexibility during a period of rising money rates, this trend probably will be resisted if deposit costs mount more quickly than the return on the bank use of these funds. Certificates can be offered aggressively when it is profitable to do so, and less eagerly when profitability declines. In the latter circumstances banks might permit issuing rates for new certificates to become noncompetitive, relative to other money market rates.

In addition to their implications for the operations of commercial banks themselves, certificates have exerted an influence on interest rates. By absorbing funds that otherwise would probably have entered the markets for other short-term instruments, they have exerted an upward pressure on short-term interest rates, thereby contributing to Treasury and Federal Reserve efforts to maintain these rates and to reduce incentives for short-term investments abroad.