Monthly Review

FEDERAL RESERVE BANK OF SAN FRANCISCO

JANUARY 1948

CURRENT BANKING AND CREDIT DEVELOPMENTS

Support of the Government securities market by the Federal Reserve System gives the commercial banks ready access to additional reserves. To exert some restraint upon the creation of reserves by this process, Reserve System support prices for longer-term, fully-taxable Treasury bonds were lowered on December 24. Another restrictive step was taken in mid-January when the discount rate of each Reserve Bank was raised from 1 percent to 1¼ percent.

Support prices lowered

The reduction in Government bond prices was abrupt, but it does not reflect any weakening of the general policy of market support of the 2½ percent rate on long-term, fully-taxable Governments. The lower support prices are being maintained aggressively by System purchases of whatever amounts may be necessary to clear the market.

Long-term Government bonds, which had been at substantial premiums, began to decline significantly in price in October in response to the Treasury offering of a 2½ percent nonmarketable issue of 1965 which was on tap for ten days, the continued demand of private borrowers for funds, and the increasing attention, both public and private, given to possible credit restriction measures. The rise in rates on short-term Governments, which had begun in July, also was a contributing factor. The Reserve System and the Treasury had been sellers of bonds in earlier months, but support purchases were resumed in mid-November. The extent of the decline in bond prices in the last four to five months, with particular reference to recent developments, is indicated in the accompanying table. It may be noted that prices of bonds fully eligible for bank purchase rose again between Christmas and January 15.

For a few days after December 24 it was necessary for the Reserve System to purchase Treasury bonds on a substantial scale, but thereafter offerings declined considerably. Despite the increase in Treasury bonds held by the System, total Government security holdings of the System were no higher in mid-January than they had been on December 24 or November 12.

TABLE 1—PRICES AND YIELDS OF SELECTED TREASURY BONDS
(Fully taxable)

	Prices[1]				Yields[2]	
	Aug. 29 1947	Dec. 23 1947	Dec. 26 1947	Jan. 15 1948	Aug. 29 1947	Jan. 15 1948
1½% Dec. 1950	101.0	100.16	100.10	100.18	1.19	1.29
2½% Mar. 1952-54	105.3	103.22	103.5	103.9	1.34	1.67
2¼% Sept. 1956-59 ...	105.20	103.12	101.9	101.10	1.58	2.08
2¼% June 1959-62[3] ...	102.19	100.14	100.1	100.1	2.00	2.24
2½% Sept. 1967-72 ...	106.19	103.8	101.1	101.3	2.10	2.42
2½% Dec. 1967-72[3] ...	102.31	101.1	100.9	100.9	2.32	2.48

[1] Decimals are 32nds.
[2] To call, in percent.
[3] Issue restricted for commercial bank purchase.

TABLE 2—GOVERNMENT SECURITIES HELD BY FEDERAL RESERVE BANKS, NOVEMBER 1947—JANUARY 1948
(millions of dollars)

	Nov. 12 1947	Dec. 24 1947	Dec. 31 1947	Jan. 14 1948
Bills	13,234	11,787	11,433	10,781
Certificates and notes	8,079	8,404	8,273	7,735
Bonds[1]	738	1,709	2,852	3,380
Total	22,052	21,900	22,559	21,896

[1] Purchases of bonds for Treasury investment accounts were also made in November and the first three weeks of December.

It is probable that additional sales of Government securities will be made to the Reserve System. Tax receipts of the Federal Government will substantially exceed its expenditures in the coming months. If, as is expected, the surplus is used principally to retire debt held by the Reserve System, the reserves lost when tax receipts are deposited to the Treasurer's account in the Reserve System will not be returned to the commercial banks. Banks will replace reserves, and both bank and non-bank lenders may seek to meet the demands of private borrowers by selling Government securities. Total Reserve System credit, however, probably will not expand correspondingly because of retirement of System-held securities. The pressure that the Treasury debt retirement program will exert on reserves may have a considerable restraining effect upon credit expansion over the next few months.

Discount rates increased

Discount rates of the Federal Reserve Banks were increased from 1 percent to 1¼ percent in mid-January. While a 1 percent discount rate had been formally in existence for some years, the effective rate during the war was ½ percent, the rate at which loans were made on Governments maturing in less than one year. These preferential rates were eliminated in April and May 1946, so that the discount rates, in effect, have been raised from ½ percent to 1¼ percent since that time.

Although discounts and advances to member banks are not large in absolute amount, they have increased considerably since mid-October. The increase in the discount rate can not be said to have, by itself, a substantial effect upon the ability and willingness of the banks to obtain additional reserves, but it is consistent with the increases that are occurring in short-term money rates, and reinforces the other restrictive actions being taken in the monetary area.

Twelfth District bank loans and investments

The total amount of Government securities held by Twelfth District banks has changed little in recent weeks. In the week ending December 31, holdings did decline about $64 million, but in the following two weeks they were restored to almost their mid-November level. Holdings of Treasury bonds were steadily but moderately reduced, however, from a recent high of $4,316 million on November 19 to $4,191 million at the end of the year.

After some hesitation in November, loans of weekly reporting banks rose very sharply in the first three weeks of December, declined slightly in the two weeks ending January 7, and increased again in the following week to an all-time high. The course of District bank loans during the first part of 1948 should be interpreted in the light of a tendency for some seasonal decline in loans during

TABLE 3—GOVERNMENT SECURITIES HELD BY WEEKLY REPORTING MEMBER BANKS, NOVEMBER 1947 AND JANUARY 1948—UNITED STATES AND TWELFTH DISTRICT
(millions of dollars)

	United States		Twelfth District	
	Nov. 12 1947	Jan. 14 1948	Nov. 12 1947	Jan. 14 1948
Bills	807	2,060	115	180
Notes and Certificates of Indebtedness	6,025	6,135	1,618	1,643
Bonds	31,002	29,392	4,299	4,195
Total	37,834	37,587	6,032	6,018

the first four months or so, relative to the latter part of the year.

Twelfth District banks have been able to increase loans in recent months without shifting out of Governments because of the flow of reserve funds into the District. In the coming months, the expected drain of Treasury operations upon reserves is likely to force District banks either to borrow or to convert other assets to maintain their reserve positions. Since extensive borrowing is unlikely, District banks may reduce their security holdings rather substantially during the first half of the year. These reductions will be greater if loan expansion continues.

INTEREST RATES ON COMMERCIAL BANK LOANS TO FARMERS[1]

THE SURVEY of agricultural loans outstanding in mid-1947 revealed two principal differences in structure between the interest rates charged by commercial banks for farm mortgage loans and those charged for non-real estate agricultural loans. First, the pattern of rates for farm mortgage loans has greater uniformity than that for farm production loans, and secondly, the level of rates is generally lower for farm mortgage than for farm production loans. These differences prevail in both the Twelfth District and the country as a whole.

The greatest variation in rates is associated with differences in size of loan. In the Twelfth District, the average rate of interest on farm mortgage loans varied from 6.5 percent on loans of under $1,000 to 4.6 percent on loans of $25,000 or over, while the average rates on farm production loans in the corresponding size groups were 7.3 and 4.3 percent respectively. The average rate for all farm mortgage loans was 5 percent compared with 5.5 percent for all farm production loans.

Comparison of rates on farm mortgage and farm production loans

The principal sources of funds for farm mortgage loans are insurance companies, mutual savings banks, commercial banks, individuals, and agencies of the Federal Farm Loan System. The chief suppliers of farm production loans are the commercial banks, which hold about two-thirds of the outstanding farm production loans (compared with only one-eighth of the farm mortgage loans), and production credit associations. The latter are quasi-cooperative, quasi-governmental organizations which obtain most of their funds from the Federal Intermediate Credit banks. The farm mortgage market is more highly organized, broader in geographical scope, and has a greater variety of suppliers of funds than the market for farm production loans. These characteristics arise from the fact that farm mortgage loans employ an essentially uniform type of security and fairly well standardized terms of contract. Mortgage loans are granted, and also purchased, with more reference to the value of the real estate pledged than to the creditworthiness of the borrower. Farm production loans, on the other hand, tend to be individual in character and hence are not easily standardized. They are made primarily on the basis of the creditworthiness of the borrower rather than on the type of security pledged, and are more dependent upon individual bargaining between the lender and the borrower. Also, they are typically smaller in amount. The larger, more competitive market for farm mortgage loans results in lower average interest rates and in greater uniformity in the pattern of rates charged on them than on production loans.

Differences in risk also contribute to differences in interest rates charged for the two types of loans. Lenders generally consider that less risk is attached to a loan secured by real estate than by many other types of collateral, and hence are willing to charge less for farm real estate loans. This influence also produces more uniform interest rates for farm mortgage loans.

Table 1 reveals clearly the general differences already mentioned. For farm production loans, 6 percent was the most common rate, and the next most frequent rate was

[1] This is the last in a series of three articles based upon a survey of agricultural loans of insured banks conducted by the Federal Reserve System with the cooperation of the Federal Deposit Insurance Corporation. The first article, on non-real estate farm loans, and the second one, on farm mortgage loans, appeared in the November and December 1947 issues of the *Monthly Review*.

TABLE 1—PERCENTAGE DISTRIBUTION OF FARM LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY INTEREST RATE—TWELFTH DISTRICT[1]

Interest rate	Farm production loans Number	Amount	Farm mortgage loans Number	Amount
3.9 and under	1	14	—	—
4.0	1	3	11	20
4.1-4.9	1	7	4	7
5.0	8	24	42	49
5.1-5.9	1	2	—	—
6.0	36	33	38	23
6.1-6.9	1	[2]	—	—
7.0	16	6	1	[2]
7.1-7.9	1	[2]	—	—
8.0	27	8	4	1
8.1 and over[3]	7	2	—	—
Total	100	100	100	100

[1] Estimated on basis of banks covered by the surveys.
[2] Less than 0.5 percent.
[3] The interest rates for discounted instalment loans used in this tabulation were effective rates, which are roughly double the quoted rates. Virtually all of the loans with rates of 8.1 percent and over were of this type.
Note: Detailed figures may not add to totals because of rounding.

8 percent in terms of number of loans, or 5 percent in terms of dollar amount. For farm real estate loans, 5 percent was the most common rate, and 6 percent was next in order of frequency. Non-real estate loans were made at both higher and lower rates than farm mortgage loans, and were also less concentrated within a narrow range of rates.

Size of loan and interest rates

As previously indicated, size of loan is the principal factor which affects the rate of interest charged on individual farm production and farm mortgage loans—the larger the loan, the lower is the rate of interest. In the Twelfth District, the average rate of interest on farm mortgage loans varied from 6.5 percent on loans of under $1,000 to 4.6 percent on loans of $25,000 and over (Table 2). The average rates on farm production loans in the corresponding size groups were 7.3 and 4.3 percent respectively.

The variation of interest rates with size of loan is the result of several factors. Banks incur certain minimum costs in extending credit which are relatively constant regardless of the size of loan. Consequently they usually charge a higher rate on small than on large loans in order to meet these costs. Generally speaking, the larger loans are granted to borrowers of large net worth who are likely to maintain sizable bank deposits, at least during certain periods of the year, and who may also create for the bank a significant amount of other business.

TABLE 2—AVERAGE INTEREST RATES ON FARM LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY SIZE OF LOAN—TWELFTH DISTRICT[1]

Size of loan[2]	Farm production loans: Average interest rate	Percentage distribution: No.	Amount	Farm mortgage loans: Average interest rate	Percentage distrib'n: No.	Amount
Under $1,000	7.3	57	10	6.5	3	[3]
$1,000-1,499	6.6	15	7	6.0	6	1
$1,500-2,499	6.3	11	9	5.7	16	5
$2,500-4,999	6.1	9	13	5.4	33	19
$5,000-9,999	5.7	6	13	5.1	27	29
$10,000-24,999	5.3	2	14	4.9	12	27
$25,000 and over	4.3	1	33	4.6	3	19
All loans	5.5	100	100	5.0	100	100

[1] Estimated on basis of banks covered by the surveys.
[2] The classification by size is based upon outstanding amount of loan for farm production loans and upon original amount of loan for farm mortgage loans.
[3] Less than 0.5 percent.
Note: Detailed figures may not add to totals because of rounding.

Regional Variations in Interest Rates

Another factor which exercises a general influence upon interest rates is geographic location. Because the market for farm mortgages is more highly organized than the one for farm production loans, regional variations in interest rates were more pronounced for farm production loans. For both types of loans, regional differences in rates were greater for small than for large loans.

Production loan rates

Rates on farm production loans in the Twelfth District were above the national average for smaller loans, but below it for loans of $2,500 and over (Table 3). Since 73 percent of the dollar amount of all Twelfth District farm production loans fell in the size category of $2,500 and over, compared with only 44 percent for the country as a whole, the average rate of 5.5 percent on all farm production loans in the District was below that of 6.1 percent for the United States. Bank rates on production loans to farmers were significantly higher in the Atlanta and Dallas Federal Reserve Districts than those charged in other districts for loans of like size.

TABLE 3—AVERAGE INTEREST RATES ON FARM PRODUCTION LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY SIZE OF LOAN AND NET WORTH OF BORROWER—TWELFTH DISTRICT, BY AREAS, AND UNITED STATES[1]

(Percent per annum)

	United States	Twelfth District	Calif.	Oregon and Washington	Inter-mountain states
All loans	6.1	5.5	5.0	5.9	6.3
Size of loan outstanding					
Under $250	7.7	8.2	8.4	8.2	8.1
$250-499	7.2	7.4	7.3	7.2	7.9
$500-999	6.8	7.1	7.1	6.8	7.5
$1,000-1,499	6.3	6.6	6.4	6.4	6.9
$1,500-2,499		6.3	6.2	6.0	6.8
$2,500 and over	5.4	5.1	4.7	5.3	5.9
$2,500-4,999	[2]	6.1	5.9	5.9	6.8
$5,000-9,999	[2]	5.7	5.4	5.2	6.6
$10,000-24,999	[2]	5.3	5.2	5.1	5.5
$25,000 and over	[2]	4.3	4.0	[3]	5.3
Net worth of borrower					
Under $2,000	7.5	7.7	6.4	7.6	8.8
$2,000-9,999	6.7	7.1	6.7	6.8	7.7
$10,000-24,999	6.3	6.5	6.0	6.6	7.1
$25,000-99,999	5.6	5.8	5.6	5.9	6.1
$100,000 and over	4.6	4.5	4.2	4.4	5.4

[1] Estimated on basis of banks covered by the survey.
[2] Not available.
[3] Insufficient number of loans to permit computation of an average rate.

Regional variations in interest rates on farm production loans appear to exist also within the Twelfth District. Rates charged in the Intermountain States, that is, Arizona, Idaho, Nevada, and Utah, were generally higher for each size of loan than the District average (Table 3). Idaho, in particular, had a higher level of rates than other states in the District. There was no marked variation in average interest rates for loans of like size among the three Pacific Coast states. However, the average rate of interest on all farm production loans was 5.9 percent in Oregon and Washington compared with 5.0 percent for California. This difference is due to the fact that more of the loans in California were large in size and hence had lower rates of interest.[1]

[1] These intra-District comparisons should be regarded as merely indicative of tendencies rather than as indisputable facts. The agricultural loan surveys were designed to reveal the characteristics of such loans for the District as a whole, but not necessarily for each individual state within the District.

Farm mortgage rates

Regional variations in interest rates on farm mortgages were much smaller than on farm production loans. For farm production loans of under $250, for example, average interest rates ranged from a low of less than 6 percent in the Boston and New York Federal Reserve Districts to nearly 11 percent in the Dallas District. The corresponding range for small farm mortgage loans (under $1,000) was from about 5.5 percent for the Boston and New York Districts to 7 percent for the Dallas District. Farm mortgage rates in the Twelfth District were slightly higher for each size of loan than for the country as a whole (Table 4). Regional variations in farm mortgage rates within the Twelfth District were small. In contrast to the situation with respect to rates on farm production loans, farm mortgage rates in the Intermountain States were below the average for the District for most sizes of loans. Rates on loans of $5,000 and over were significantly lower in Oregon and Washington than in other sections of the District.

TABLE 4—AVERAGE INTEREST RATES ON FARM MORTGAGE LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY ORIGINAL SIZE OF LOAN—TWELFTH DISTRICT, BY AREAS, AND UNITED STATES[1]

(Percent per annum)

Original size of loan	United States	Twelfth District	Calif.	Oregon and Washington	Inter-mountain states
Under $1,000	6.2	6.5	5.9	6.8	6.1
$1,000-1,499	5.8	6.0	5.9	6.5	5.7
$1,500-2,499	5.4	5.7	5.7	5.8	5.7
$2,500-4,999	5.0	5.4	5.5	5.3	5.1
$5,000-9,999	4.7	5.1	5.3	4.7	5.0
$10,000 and over	4.5	4.8	4.9	4.4	4.8
All loans	4.9	5.0	5.1	4.9	5.1

[1] Estimated on basis of banks covered by the survey.

Other Influences Affecting Farm Production Loan Rates

A number of other factors exercised some influence upon interest rates for farm production loans. Among these are size of bank, type of farm, net worth of borrower, tenure of borrower, maturity, type of security, and purpose of loan. The range of variation associated with each of these factors was smaller, however, than for size of loan. For each of these characteristics, rates were usually higher on small loans than on large ones.

TABLE 5—AVERAGE INTEREST RATES ON FARM PRODUCTION LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY SIZE OF BANK AND TYPE OF FARM—TWELFTH DISTRICT AND UNITED STATES[1]

(Percent per annum)

	Twelfth District	United States
All loans	5.5	6.1
Size of bank (total deposits)		
Under $2 million	6.9	6.7
$2-10 million	5.6	6.1
$10 million and over	5.1	5.1
Type of farm		
General	6.6	6.4
Dairy	5.9	5.9
Wheat, corn, and field crops	6.0	6.4
Livestock	4.7	5.3
Poultry	5.9	5.7
Truck	5.7	6.0
Fruit	5.9	5.4
Cotton	5.2	7.7
Other	5.9	6.2

[1] Estimated on basis of banks covered by the surveys.

Size of bank

Average interest rates on farm production loans were generally higher at small banks than at large ones. Twelfth District banking offices (including branch banking offices, which were treated as separate units) with total deposits of less than $2 million charged an average rate of 6.9 percent on production loans compared with 5.1 percent charged by banking offices with total deposits of $10 million and over (Table 5). Small banks in the District charged slightly more than did small banks in the country as a whole. The average interest rate on farm production loans of medium-sized banks (those with total deposits of $2-$10 million) in the District was 5.6 percent compared with 6.1 percent for the United States. The rates at large banks were the same in the District as in the United States.

Type of farm

In both the Twelfth District and the United States, operators of general farms had to pay a higher rate of interest for production loans than did operators of specialized farms (Table 5). Loans to livestock producers carried the lowest average rate of any type of farm in the District. This was due in large part to the fact that the average size of loan to livestock producers was much greater than for other types of farms.

The most marked difference between the District and the United States in average interest rates by type of farm occurred in the case of cotton growing. The average rate in the District was 5.2 percent compared with 7.7 percent for the country as a whole. Cotton growing outside the District is largely concentrated in the South where average interest rates on agricultural loans were significantly higher than in other sections of the country. Moreover, cotton growing within the District is characterized to a greater extent than in the country as a whole by large-scale, efficient operations.

Net worth and tenure of borrower

Borrowers of large net worth were able to secure loans of given size at lower rates than were borrowers of small net worth (Table 3). Average interest rates were somewhat higher in the Twelfth District than in the country as

TABLE 6—AVERAGE INTEREST RATES ON FARM PRODUCTION LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY SECURITY AND TENURE OF BORROWER—TWELFTH DISTRICT, BY AREAS, AND UNITED STATES[1]

(Percent per annum)

	United States	Twelfth District	Calif.	Oregon and Wash.	Inter-mountain states
All loans	6.1	5.5	5.0	5.9	6.3
Type of security					
Unsecured	5.8	5.6	5.3	5.9	6.0
Endorsed	5.9	6.5	6.1	6.6	7.4
Livestock	5.8	5.0	4.6	6.1	6.0
Machinery	6.6	7.7	7.6	7.0	8.4
Growing crops	7.1	6.6	5.9	5.7	7.6
Combination of crops, livestock, or machinery	6.9	5.9	5.2	6.5	6.0
G. I. guarantee or insurance	4.2	6.0	6.7	4.7	4.0
Tenure of borrower					
Owner, farm not mortgaged	5.8	5.1	4.5	5.4	6.1
Owner, farm mortgaged	6.1	5.8	5.3	6.2	6.2
Tenant or cropper	6.7	6.1	5.6	6.4	7.3

[1] Estimated on basis of banks covered by the survey.

a whole for all sizes of borrowers except those with a net worth of $100,000 or over. The proportion of farm production loans made to borrowers of large net worth was substantially higher in the District than in the United States. As a result the average rate for all farm production loans was lower in the District than in the United States. There was also a significant variation in average interest rates associated with the tenure of the borrower. As would be expected, tenants or croppers had to pay higher rates than owners. Furthermore, owners whose farms were mortgaged paid higher rates than did those whose farms were unencumbered. In both the District and the United States, the spread between the average rates for tenants and owners of unmortgaged farms was about one percent (Table 6).

Type of security

In general, unsecured loans, both in the District and in the United States, carried slightly lower average rates of interest than secured loans (Table 6). A bank grants unsecured loans only to those borrowers who are considered to be quite sound financially, whereas it requires collateral in those cases which involve greater risk. Because of these differences in risk, interest rates tend to be lower on unsecured than on secured loans. The only exception to this in the District was in loans secured by livestock which had low rates because of their large size. Loans secured by machinery carried the highest average rate in the District, followed by loans with growing crops as collateral.

Maturity

Average interest rates on farm production loans in the Twelfth District varied directly with length of maturity. Loans with maturities of six months or less had an average rate of about 5 percent (Table 7). Thereafter, the rates increased as maturities lengthened, reaching an average of 7.3 percent for loans running for more than two years. The pattern of variation for the country as a whole was significantly different. Very short maturities carried the lowest rates, as in the District, but the highest rate was on loans with a maturity of six to nine months. As maturities lengthened beyond that point, the average rate of interest declined. This difference between the patterns of variation in the District and the United States arises because factors other than the relative disposition of banks to lend money for particular intervals of time play a part in determining average rates by maturity. Distribution by maturity of these other characteristics, such as size of loan and type of security, was probably different in the District than in the United States.

TABLE 7—AVERAGE INTEREST RATES ON FARM PRODUCTION LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY MATURITY AND PURPOSE OF LOAN—TWELFTH DISTRICT AND UNITED STATES[1]

(Percent per annum)

	Twelfth District	United States
All loans	5.5	6.1
Maturity		
Demand	5.0	5.6
3 months or less	5.1	6.4
3-6 months	5.1	6.2
6-9 months	5.9	6.8
9-12 months	5.8	6.2
1-2 years	6.6 }	5.8
Over 2 years	7.3 }	
Purpose of loan		
Pay production or living expenses	5.7	6.6
Buy machinery or livestock	5.3	6.0
Buy or improve land or buildings	5.7	5.7
Repay debts	5.6	5.9

[1] Estimated on basis of banks covered by the survey.

Purpose of loan

The range in variations in average interest rates according to purpose of loan was only half as great in the District as in the United States (Table 7). Loans to buy machinery or livestock carried the lowest average rate of interest in the District. This was due to the large average size of District livestock loans with their accompanying low rates of interest. For the country as a whole, loans to buy or improve land or buildings had the lowest rate of interest. The average rate for this purpose was the same in both the District and the United States, 5.7 percent. Loans to pay production or living expenses had the highest rate for the United States, 6.6 percent, compared with 5.7 percent for the District.

Variations in Farm Mortgage Rates

Several of the factors that exercised an influence upon interest rates for farm production loans also affected rates for farm mortgage loans. These include size of bank, maturity, type of farm, and purpose of loan.

Size of bank

Average interest rates on farm mortgage loans outstanding at small banks were higher than at large ones. Average rates for Twelfth District banking offices (including branch offices) in all three size groups were somewhat higher than for the corresponding groups in the country as a whole. Small banks (those with total deposits of under $2 million) charged an average rate of 5.3 percent in the Twelfth District compared with 5 percent in the United States, while large banks (those with deposits of $10 million and over) had average rates of 4.9 and 4.6 percent respectively (Table 8).

Maturity and repayment method

Farmers obtained long-term mortgage credit at lower interest rates than short-term credit. This was characteristic of farm mortgage loans in both the Twelfth District and the United States, but the average rates for each length of maturity were somewhat higher in the District than in the country as a whole (Table 8).

Several factors contribute to this difference in rates for long-term and short-term mortgage credit. A bank incurs certain minimum costs in making a mortgage loan, and the longer the maturity, the lower the interest rate may be and still provide for repayment of such costs. Some short-term mortgage loans are essentially farm production loans which the bank was unwilling to make without having real estate pledged as security. Banks probably charge somewhat higher rates to borrowers of this type who do not have a very strong bargaining position. It is also possible that banks may exercise somewhat

TABLE 8—AVERAGE INTEREST RATES ON FARM MORTGAGE LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY SIZE OF BANK, MATURITY, AND REPAYMENT METHOD—TWELFTH DISTRICT AND UNITED STATES[1]

(Percent per annum)

	Twelfth District	United States
All loans	5.0	4.9
Size of bank (total deposits)		
Under $2 million	5.3	5.0
$2-10 million	5.2	4.9
$10 million and over	4.9	4.6
Maturity		
Demand	[2]	5.1
1 year or less	5.8	5.6
1-2 years	5.5	5.4
2-3 years	5.3	5.1
3-5 years	5.2	4.7
5-10 years	4.8	4.6
10-15 years	4.8	4.3
Over 15 years	4.2	
Repayment method		
Loans maturing in 1 year or less		
One payment	5.8	5.6
Instalment	5.6	5.1
Loans maturing in over 1 year		
One payment	5.2	4.8
Instalment	5.0	4.7

[1] Estimated on basis of banks covered by the survey.
[2] Insufficient number of loans to permit computation of an average rate.

TABLE 9—AVERAGE INTEREST RATES ON FARM MORTGAGE LOANS OF INSURED COMMERCIAL BANKS OUTSTANDING IN MID-1947, BY TYPE OF FARM AND PURPOSE OF LOAN—TWELFTH DISTRICT AND UNITED STATES[1]

(Percent per annum)

	Twelfth District	United States
All loans	5.0	4.9
Type of farm		
General	5.0	4.8
Dairy	4.9	4.8
Wheat, corn, and field crops	4.7	4.8
Livestock	4.9	4.8
Poultry	5.6	5.1
Truck	5.4	5.2
Fruit	5.1	5.1
Cotton	5.3	5.7
Other	5.1	5.0
Purpose of loan		
Buy land mortgaged	4.8	4.8
Buy other land	5.0	4.9
Build or repair buildings	5.3	5.2
Other	5.2	5.1

[1] Estimated on basis of banks covered by the survey.

greater caution in making long-term as contrasted with short-term loans because of the prolonged period of time for which bank funds are committed, and hence such loans may be somewhat above average in quality.

Farm mortgage loans repayable in installments carried slightly lower interest rates than did single-payment loans (Table 8).

Type of farm

Operators of general farms, as contrasted with specialized farms, paid about average interest rates on mortgage loans, whereas on farm production loans they had rates significantly above average. Poultry producers paid the highest average rate on mortgage loans in the District, while producers of wheat and other field crops had the lowest rate (Table 9). The highest rate for the country as a whole was paid by cotton growers, who also had the highest rate on a national basis on farm production loans. In the country as a whole there was more uniformity in mortgage loan rates by type of farm than in the Twelfth District.

Purpose of loan

In both the District and the United States, farm real estate loans obtained for the purpose of buying the land which is pledged as security carried a lower rate of interest than loans used for other purposes. Rates on loans to buy land other than that mortgaged were only slightly higher (Table 9), while rates for loans for all other purposes were significantly higher.

TWELFTH DISTRICT EMPLOYMENT INDEXES

A NEW SERIES of indexes of total manufacturing employment in the Twelfth District has recently been prepared by this bank. Indexes of wage-earner employment in the Twelfth District were published in the MONTHLY REVIEW through 1945, but because deficiencies were found in the data for each of the states except California, the indexes were not continued. Since 1945 only a California index, for which the basic data are supplied by the California State Division of Labor Statistics and Research, has been published. With this issue of the MONTHLY REVIEW the California index is being replaced by the new Twelfth District manufacturing series. In addition to wage earners or so-called production workers, the new series includes administrative, supervisory, sales, technical and office personnel, and force-account construction workers. As in the earlier indexes, the fruit and vegetable and fish canning industries have been excluded. This is because of the extreme and changing seasonal fluctuations in employment in the canning industry, which make seasonal adjustments difficult, and obscure basic changes in manufacturing employment.

The new indexes, which are on a 1935-39 base, cover the period from 1935 to date, with only annual indexes up to 1939 and monthly indexes from January 1939 to date. These indexes have been computed for the Twelfth District as a whole, for California, Oregon, and Washington separately, and for the four Intermountain States, Arizona, Idaho, Nevada, and Utah, combined. No satisfactory monthly data on total manufacturing employment prior to 1939 exist; the only available monthly employment indexes for the Twelfth District are this bank's earlier wage-earner indexes.[1]

The basic data for the greater part of the new indexes are the series of monthly manufacturing employment estimates by states, beginning January 1943, initiated recently by the Bureau of Labor Statistics.[2] The indexes from 1935 to January 1943 are based upon data derived

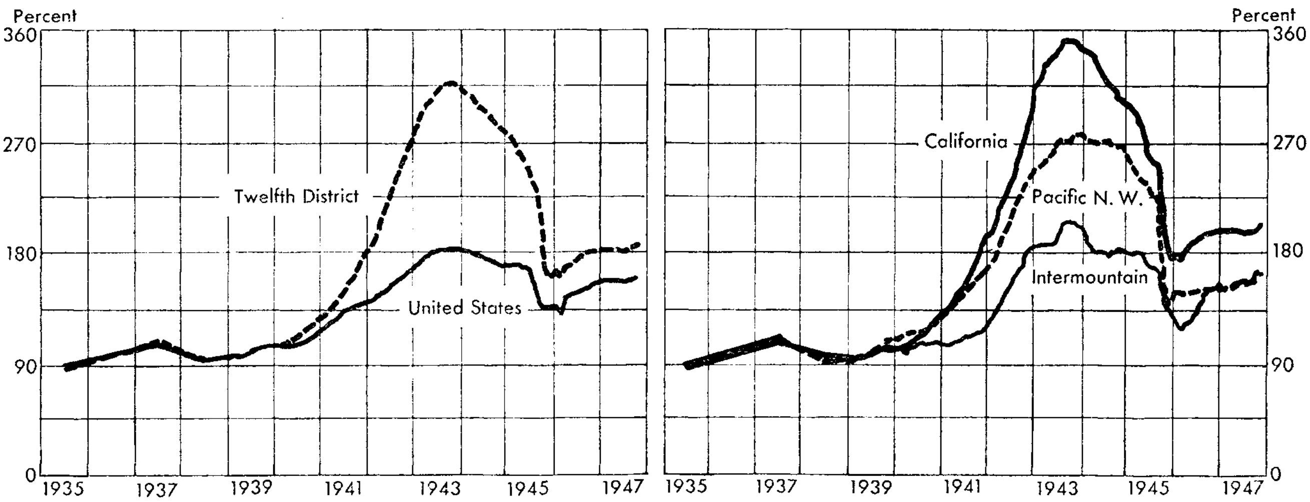
[1] Described in the *Monthly Review*, November 1943.
[2] These estimates are published monthly by the following state agencies cooperating with the Bureau of Labor Statistics: Arizona, Employment Security Commission; California, Division of Labor Statistics and Research; Nevada, Employment Security Department; Utah, Department of Employment Security; Washington, Office of Unemployment Compensation and Placement. The Bureau of Labor Statistics releases the estimates for Idaho and Oregon.

from the biennial Censuses of Manufacturers from 1935 through 1939, and from state tabulations of insured employment issued by the Bureau of Employment Security of the Federal Security Agency.

Adjustment for seasonal variation

To reveal nonseasonal movements more clearly, regularly recurring seasonal changes were measured and the indexes were adjusted to exclude them. Seasonal fluctuations in manufacturing employment in California, Oregon, and Washington followed established seasonal patterns up to the advent of the war. During the war years seasonal movements in these states virtually disappeared under the pressure of capacity operations, and no adjustments were made. Intermountain employment during the war followed a seasonal pattern somewhat similar to, though less clearly defined than that of the prewar period. Seasonal fluctuations are beginning to appear again in employment, and minor seasonal adjustments have been made in the data for recent months, except for California where no definite seasonal pattern has yet become discernible.

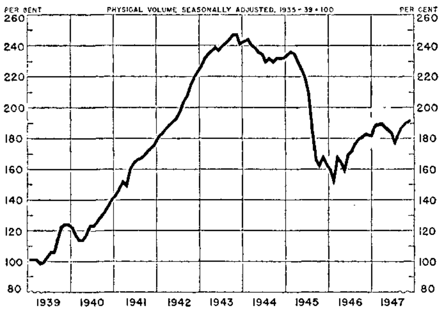
Note: A detailed description of basic sources of data and adjustments made by this bank and detailed tabulations of the indexes are available on request.



MANUFACTURING EMPLOYMENT—TWELFTH DISTRICT, BY AREAS, AND UNITED STATES

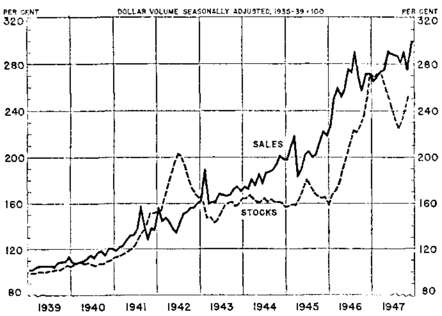
Indexes of total employment in manufacturing, adjusted for seasonal variation, 1935-39=100. Annual figures for 1935-1938, monthly figures thereafter. Latest shown are for November, except United States figure which is for October.

INDUSTRIAL PRODUCTION



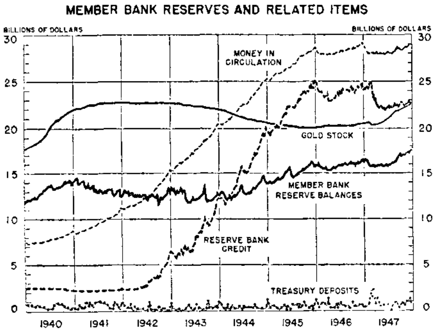
Federal Reserve index, monthly figures, latest shown are for November.

DEPARTMENT STORE SALES AND STOCKS



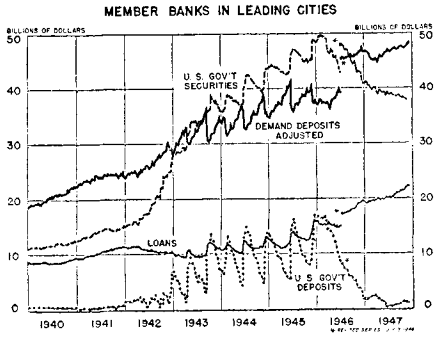
Federal Reserve indexes, monthly figures, latest shown for sales, November; for stocks, October.

MEMBER BANK RESERVES AND RELATED ITEMS



Wednesday figures, latest shown are for December 17.

MEMBER BANKS IN LEADING CITIES



Demand deposits (adjusted) exclude U. S. Government and interbank deposits and collection items. Government securities include direct and guaranteed issues. Wednesday figures, latest shown are for December 10.

National Summary of Business Conditions

Released December 24, 1947—Board of Governors of the Federal Reserve System

INDUSTRIAL production expanded somewhat further in November. Department store sales showed more than a seasonal increase in November and the first half of December. Wholesale commodity prices generally continued to advance.

Industrial Production

The Board's seasonally adjusted index of industrial production advanced 2 points in November to 192 percent of the 1935-39 average, a new postwar peak rate.

Output of durable goods expanded somewhat further, reflecting largely increases in activity in most machinery, transportation equipment, and nonferrous metal fabricating industries. Output of steel in November was at a slightly lower rate than in October, but in the early part of December scheduled operations rose to new postwar peaks. Motor truck assemblies were curtailed in November and early December, as a result of model changeover activity at plants of a major producer, while output of passenger cars increased. Output of lumber and other construction materials was maintained in large volume.

Manufacture of nondurable products continued to increase in November, reflecting mainly a further marked rise in activity at cotton textile mills and an expansion in the volume of livestock slaughtered as a result of reduced feed supplies and high prices for feeds. Liquor production, which increased sharply in October, was curtailed in November in accordance with the Federal program to conserve grain.

Production of minerals rose somewhat further in November, reflecting further gains in output of bituminous coal as increased numbers of freight cars became available.

Construction

Values of most types of construction contract awards, according to the F. W. Dodge Corporation, showed seasonal declines in November and were substantially larger than a year ago. The number of dwelling units started during the month, as estimated by the Department of Labor, decreased from 94,000 in October to 82,000 in November; completions increased from 83,000 units to 86,000.

Distribution

Department store sales showed a sharp seasonal increase in November and the Board's adjusted index rose to a new high of 300 percent of the 1935-39 average, as compared with 275 in October and 291 in September. Value of sales continued at a high level in the first half of December and was 8 percent above the corresponding period in 1946. Value of department store stocks has also increased in recent months and is above the corresponding period of a year ago.

Shipments of most classes of railroad revenue freight were maintained in large volume in November and the first half of December, after allowance for usual seasonal declines at this time of the year. Coal shipments continued to increase and were at the peak rate reached at the beginning of the year.

Commodity Prices

Wholesale commodity prices generally advanced further in November and the early part of December. Crude petroleum prices were increased sharply and advances were announced in refined petroleum products, newsprint, rayon, textile products, shoes, and some metal products. Government disposal prices for Japanese silk were reduced by nearly one-half. Prices of commodities traded in the organized markets rose further in November but showed little change in the first three weeks of December.

The consumers' price index was unchanged from September to October. Food prices generally showed little change in November and December, while additional increases occurred in retail prices of other goods and services.

Bank Credit

Loans to businesses, consumers, and real estate owners expanded further at banks in leading cities during November and the first half of December. Demand deposits of individuals and businesses increased 800 million dollars at these banks, and currency in circulation rose by 400 million.

In the four weeks ending December 17, member banks gained reserves as a result of a continued inflow of gold, Treasury transactions, and Federal Reserve purchases of Government securities. These sources of reserves more than offset the seasonal growth in currency.

Reserve Bank holdings of Government securities declined in the four-week period, reflecting Treasury retirement of bills and certificates. The System also sold substantial amounts of bills and certificates in the market, but purchased larger amounts of notes and bonds.

Interest Rates and Bond Yields

Prices of Treasury bonds, which declined sharply in October and November, were held firm after the middle of November by official support. Prices of corporate bonds declined further. Yields on Treasury certificates rose and a new issue of 1⅛ percent one-year certificates was offered in exchange for the issue maturing January 1.

BUSINESS INDEXES—TWELFTH DISTRICT

1935-39 Average = 100[1]

Year and month	Industrial production (physical volume)[2]									Total manufacturing employment[4]		Factory payrolls[4]	
	Lumber		Petroleum[3]		Cement		Wheat flour	Electric power				California	
			Crude	Refined									
	Adjusted	Unadjusted	Unadjusted	Unadjusted	Adjusted	Unadjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted
1929	....	148	121	193	....	110	106	....	83	....	....	....	111
1930	....	112	95	168	....	96	100	....	84	....	....	....	93
1931	....	77	78	140	....	74	101	....	82	....	....	....	73
1932	....	46	74	134	....	48	89	....	73	....	....	....	54
1933	....	62	72	127	....	54	88	....	73	....	....	....	53
1934	....	67	73	123	....	70	95	....	79	....	....	....	64
1935	....	83	86	140	....	68	94	....	85	....	88	....	78
1936	....	106	89	154	....	117	96	....	96	....	100	....	96
1937	....	113	99	163	....	112	99	....	105	....	112	....	115
1938	....	88	104	159	....	92	96	....	102	....	96	....	101
1939	....	110	93	160	....	114	107	....	112	....	104	....	110
1940	....	120	93	158	....	124	103	....	122	....	118	....	134
1941	....	140	96	172	....	164	103	....	136	....	155	....	224
1942	....	140	103	175	....	194	104	....	167	....	230	....	460
1943	....	133	118	194	....	160	115	....	214	....	306	....	705
1944	....	138	129	226	....	128	119	....	231	....	295	....	694
1945	....	108	135	243	....	131	132	....	219	....	229	....	497
1946	....	118	131	219	....	165	128	....	219	....	174	....	339
1946													
October	122	133	131	229	161	175	135	236	229	182	182	376	380
November	128	122	132	227	182	176	127	237	232	183	183	372	373
December	133	100	133	221	182	170	145	243	240	183	183	387	388
1947													
January	155	106	134	219	191	164	152	250	246	182	182	386	379
February	172	121	136	227	182	166	147	249	244	183	182	387	384
March	143	124	137	255	207	190	141	252	248	183	182	390	389
April	132	135	137	259	193	196	133	254	252	184	184	392	392
May	130	151	138	267	193	195	129	251	253	183	183	392	394
June	131	151	139	264	186	202	138	251	257	182	182	394	396
July	126	140	139	261	184	195	126	252	262	181	182	392	392
August	130	158	139	279	185	201	125	252	263	183p	184p	408	410
September	131	154	139	278	193	207	123	259	259	185p	185p	411	412
October	140	152r	140	273r	187	203	133	260	253	187p	187p	418	423
November	155	148	141	272	205	199	133	263	258	188p	188p	419	420

Year and month	Carloadings (number)[1]						Department store sales (value)[2]					Dept. store stocks (value)[5]		Retail food prices[6]
	Total		Merchandise and miscellaneous		Other		District		California	Pacific Northwest	Utah & So. Idaho	District		
	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Adjusted	Adjusted	Adjusted	Unadjusted	Unadjusted
1929	....	112	....	114	....	109	....	112	109	115	124	....	132	132.0
1930	....	96	....	105	....	84	....	104	103	106	111	....	125	124.8
1931	....	75	....	89	....	57	....	94	94	91	97	....	110	104.0
1932	....	57	....	74	....	37	....	71	72	68	69	....	89	89.8
1933	....	58	....	70	....	43	....	68	68	66	72	....	80	86.8
1934	....	66	....	81	....	48	....	77	75	78	82	....	85	93.2
1935	....	72	....	85	....	56	....	86	86	85	89	....	89	99.6
1936	....	85	....	97	....	70	....	100	99	100	99	....	97	100.3
1937	....	90	....	102	....	75	....	105	106	105	104	....	108	104.5
1938	....	79	....	90	....	65	....	100	100	100	98	....	101	99.0
1939	....	85	....	96	....	72	....	109	109	110	110	....	106	96.9
1940	....	90	....	99	....	79	....	116	117	117	116	....	113	97.6
1941	....	105	....	116	....	91	....	139	136	146	138	....	137	107.9
1942	....	113	....	121	....	103	....	169	160	189	174	....	187	130.9
1943	....	109	....	119	....	97	....	201	192	219	212	....	172	143.4
1944	....	115	....	130	....	97	....	221	217	232	217	....	177	142.1
1945	....	110	....	131	....	83	....	244	242	252	237	....	182	146.3
1946	....	111	....	132	....	86	....	306	304	310	304	....	238	167.4
1946														
October	109	128	125	151	89	99	319	330	320	313	301	270	299	186.2
November	111	112	134	134	83	84	319	376	325	307	289	296	313	199.9
December	121	107	145	129	91	79	317	503	310	329	305	334	273	198.4
1947														
January	136	108	146	122	124	89	313	249	307	318	326	315	277	195.7
February	134	111	150	125	113	93	330	278	317	352	335	330	290	193.5
March	117	109	129	120	103	96	325	295	318	336	314	331	308	196.6
April	120	117	130	122	108	111	315	297	314	311	313	308	304	197.8
May	112	112	131	123	88	98	323	300	321	331	279	287	298	197.3
June	115	124	134	142	91	101	319	293	317	324	294	280	285	194.8
July	122	124	133	142	107	102	329	271	322	333	349	267	283	196.5
August	109	125	129	145	82	100	340	306	329	349	363	248	272	197.9
September	108	124	121	142	91	101	321	335	317	323	312	253	285	206.6
October	109	128	122	147	92	103	324	335	321	332	294	288	319	201.8
November	107	114	129	129	94	95	340	400	342	332	313	315	333	209.4

[1] The terms "adjusted" and "unadjusted" refer to adjustment of monthly figures for seasonal variation. Excepting department store statistics, all indexes are based upon data from outside sources, as follows: Lumber, various lumber trade associations; Petroleum and Cement, U.S. Bureau of Mines; Wheat flour, U.S. Bureau of the Census; Electric power, Federal Power Commission; Manufacturing employment, Factory payrolls, and Retail food prices, U.S. Bureau of Labor Statistics and cooperating state agencies; and Carloadings, various railroads and railroad associations.

[2] Daily average. [3] 1923-25 daily average = 100. [4] Excludes fish, fruit and vegetable canning. Factory payrolls index covers wage earners only.

[5] At retail, end of month or end of year. [6] Los Angeles, San Francisco, and Seattle indexes combined.

p—preliminary. r—revised.

BANKING AND CREDIT STATISTICS—TWELFTH DISTRICT

(amounts in millions of dollars)

Year and month	Condition items of all member banks[1]									
	Loans and discounts					Investments[2]		Demand deposits adjusted[3,4]	Time deposits (except U.S. Gov't)[4]	U.S. Gov't deposits[4]
	Total[2]	Coml., ind. & agric.	For purch., carry'g secs.	Real estate	All other	U.S. Gov't securities	All other securities			
1929	2,239	...	...	647	...	495	458	1,234	1,776	36
1930	2,218	...	...	721	...	467	561	1,158	1,915	49
1931	1,898	...	...	711	...	547	560	984	1,667	99
1932	1,570	...	...	635	...	601	528	840	1,515	148
1933	1,486	...	...	668	...	720	510	951	1,453	233
1934	1,469	...	...	670	...	1,064	575	1,201	1,759	228
1935	1,537	...	...	662	...	1,275	587	1,389	2,006	167
1936	1,682	...	...	686	...	1,334	614	1,791	2,078	96
1937	1,871	...	...	730	...	1,270	498	1,740	2,164	90
1938	1,869	663	82	798	327	1,323	486	1,781	2,212	127
1939	1,967	664	76	864	362	1,450	524	1,983	2,263	118
1940	2,130	735	65	931	399	1,482	590	2,390	2,351	68
1941	2,451	933	59	1,000	460	1,738	541	2,893	2,417	144
1942	2,170	870	51	974	275	3,630	538	4,356	2,603	307
1943	2,106	934	62	899	211	6,235	557	5,998	3,197	842
1944	2,254	956	184	885	228	8,263	698	6,950	4,127	1,442
1945	2,663	1,103	343	908	309	10,450	795	8,203	5,194	2,050
1946	4,068	1,882	195	1,431	560	8,426	908	8,821	5,781	303
1946										
October	3,794	...	...	...	...	9,157	891	8,757	5,669	808
November	3,954	...	...	...	...	8,815	889	8,801	5,696	610
December	4,068	1,882	195	1,431	560	8,426	908	8,821	5,781	303
1947										
January	4,140	...	...	...	...	8,303	911	8,704	5,761	308
February	4,254	...	...	...	...	8,058	893	8,367	5,804	370
March	4,364	...	...	...	...	7,909	894	8,327	5,820	396
April	4,479	...	...	...	...	7,677	876	8,334	5,837	286
May	4,558	...	...	...	...	7,662	862	8,260	5,851	235
June	4,658	2,047	134	1,828	649	7,370	871	8,297	5,908	103
July	4,755	...	...	...	...	7,375	874	8,366	5,888	148
August	4,879	...	...	...	...	7,353	871	8,462	5,887	208
September	4,997	...	...	...	...	7,364	889	8,600	5,909	216
October	5,158	...	...	...	...	7,361	896	8,722	5,949	192
November	5,240	...	...	...	...	7,361	884	8,797	5,907	205
December	5,362	...	...	...	...	7,243	872	8,811	5,988	148

Year and month	Member bank reserves and related items[5]								Bank debits index 31 cities[8]
	Reserve bank credit[6]	Commercial operations[6]	Treasury operations[6]	Coin and currency in circulation		Reserves[7]			
				Total[6]	F.R. notes of F.R.B. of S.F.	Total	Required	Excess	Unadjusted
1929	− 34	0	+ 23	− 6	189	175	171	4	146
1930	− 16	− 53	+ 89	+ 16	186	183	180	5	126
1931	+ 21	− 154	+ 154	+ 48	231	147	154	− 4	97
1932	− 42	− 175	+ 234	+ 30	227	142	135	8	68
1933	− 2	− 110	+ 150	− 18	213	185	142	37	63
1934	− 7	− 198	+ 257	+ 4	211	242	172	84	72
1935	+ 2	− 163	+ 219	+ 14	280	287	201	100	87
1936	+ 6	− 227	+ 454	+ 38	335	479	351	119	102
1937	− 1	− 90	+ 157	− 3	343	549	470	70	111
1938	− 3	− 240	+ 276	+ 20	361	565	418	142	98
1939	+ 2	− 192	+ 245	+ 31	388	584	459	138	102
1940	+ 2	− 148	+ 420	+ 96	493	754	515	257	110
1941	+ 4	− 596	+1,000	+ 227	700	930	720	245	134
1942	+ 107	−1,980	+2,826	+ 643	1,279	1,232	1,025	262	165
1943	+ 214	−3,751	+4,486	+ 708	1,937	1,462	1,343	103	211
1944	+ 98	−3,534	+4,483	+ 789	2,699	1,706	1,598	104	237
1945	− 76	−3,743	+4,682	+ 545	3,219	2,033	1,878	136	260
1946	+ 9	−1,607	+1,329	− 326	2,871	2,094	2,051	59	298
1946									
October	− 162	− 29	+ 223	− 2	2,875	2,040	2,002	56	310
November	+ 74	− 136	+ 111	− 2	2,866	2,092	2,030	54	313
December	+ 37	+ 37	− 62	+ 7	2,871	2,094	2,051	59	339
1947									
January	+ 109	− 35	− 168	− 81	2,800	2,081	2,043	60	321r
February	+ 14	− 25	− 133	− 32	2,765	1,981	1,982	51	325
March	− 62	+ 3	+ 50	− 30	2,735	2,003	1,940	61	332
April	− 2	− 69	+ 47	− 18	2,716	1,997	1,934	63	309
May	+ 34	− 14	+ 49	+ 10	2,714	1,993	1,934	59	297
June	− 21	− 41	− 7	− 13	2,695	1,992	1,944	51	322
July	− 234	− 213	+ 381	− 23	2,669	1,963	1,956	60	305
August	− 48	+ 78	+ 124	− 23	2,685	2,078	1,985	62	322
September	− 87	− 85	+ 172	− 10	2,675	2,095	2,028	80	325
October	+ 23	− 39	+ 35	− 16	2,656	2,137	2,046	77	346r
November	− 4	0	+ 33	+ 3	2,653	2,130	2,059	65	344
December	− 25	− 5	+ 49	− 18	2,639	2,202	2,085	70	365

[1] Annual figures are as of end of year; monthly figures are as of last Wednesday in month or, where applicable, as of call report date.
[2] Monthly data for 1946 partly estimated.
[3] Demand deposits, excluding interbank and U.S. Gov't deposits, less cash items in process of collection.
[4] Monthly data partly estimated. [5] End of year and end of month figures. [6] Changes only.
[7] Total reserves are as of end of year or month. Required and excess: monthly figures are daily averages, annual figures are December daily averages.
[8] Debits to total deposit accounts, excluding interbank deposits. 1935-39 daily average = 100.
p—preliminary. *r*—revised.