Monthly Review

FEDERAL RESERVE BANK OF SAN FRANCISCO

December 1957

1957 IN BRIEF REVIEW

ALTHOUGH the nation's most recent boom carried strongly enough into 1957 to lift most annual indicators to new highs, signs of recession appeared in the last half and became unmistakable during the last quarter of the year. After rising spectacularly for more than two years, over-all business activity in the nation held to an all-time high level during the second and third quarters and then began to lose altitude. By September nonfarm employment, personal income, and retail sales had retreated a short distance from the record peaks reached during the summer. These declines followed earlier downturns in industrial production and manufacturers' sales. Two developments stand out in the events of the year: a downturn in military spending after mid-year, and a leveling in plant and equipment expenditures in the second half.

By the fourth quarter there were also some indications that inflationary pressures on prices had begun to ease. In the nation's primary markets the index for 22 basic commodities fell 8 percent from January to November with most of the decline occurring after July. A month later, in August, wholesale prices began to slip though they are still about 1 percent higher than at the beginning of the year. Meanwhile, the prices of goods and services purchased by consumers recorded another gain from October to November. However, the rate of rise in recent months has not been as great as during the first half of 1957.

It is clearly evident that until recently employment and output adjustments occurring in the economy have been largely centered in durable goods manufacturing industries. Early in the fourth quarter production of durables had receded to a level about 7 percent lower than the record achieved in December 1956 (after seasonal adjustment) in response to a substantial fall in the flow of new orders and a drop in the build-up of manufacturers' inventories of finished goods. Production of nondurables reached a record high in September and then slipped moderately. Durable goods industries also account for three-fourths of the drop in manufacturing employment during the first 10 months of the year.

Capital spending slowed as capacity outpaced demand

One of the principal factors accounting for the downturn in activity in recent months has been the leveling off of business outlays for plant and equipment as increases in capacity outstripped demand. After increasing by 25 percent last year, spending on fixed capital increased by less than 5 percent between the end of 1956 and mid-1957 and recorded very little gain in the second half of this year. The expansion in capacity, underway since early 1955, was based in part on expected long-run growth but relied to some extent on the short-run expansion in demand by consumers and government. As is often the case when projections are made, results do not always match anticipations. During the early part of this year it became apparent that capacity was exceeding demand in a wide range of industries. Nonferrous metals and steel provide prominent examples since the rate of capital spending by primary nonferrous metal producers was almost four times as large in 1957 as in 1955, and the steel industry doubled its capital outlays in the same period. During the same interval sales of primary metals producers rose 7 percent from 1955 to 1956 and have been declining throughout 1957. The rate of increase in capital spending during the second half halted in a large number of lines, and declines were recorded in a number of durable manufacturing industries.

While the easing in plant and equipment expenditures can be attributed to the fact that demand failed to keep pace with capacity, the leveling off of capital outlays also contributed to a decline in demand. Part of this interaction is evident from the sharply reduced rate of orders for machine tools and other types of machinery and equipment. In addition, contract awards for factory building fell behind those of last year by 9 percent in the first 10 months of the year.

Most other types of fixed investment did not show significant strength during the year. Residential construction was off from a year ago, and the total units started may fall slightly below 1 million compared with 1.1 million in 1956 and

1.3 million in 1955. Contract awards for nonresidential building except factories increased about 2 percent during the first 10 months of the year, but public utility and public works awards rose 5 percent.

Inventory spending more moderate in 1957

Business investment in inventories during the first three quarters of 1957 was approximately a fourth as great as in the same period last year. There was an actual decline in the first quarter, principally among durable manufacturing industries. Cautious inventory policies were maintained throughout the year as ordering times were reduced and the function of storing inventories was passed backwards to primary producers. In the fourth quarter signs of an over-all inventory liquidation reappeared. In the steel industry, for example, consumers were paring stocks. Consequently, steel production was less than consumption. The situation was in sharp contrast to the closing quarter of 1956 when steel consumers were accumulating inventories and the industry was operating at near full-capacity levels.

Government demand for goods and services contributed to change of pace in 1957

Despite an increase for the year as a whole, government spending gave rise to some of the adjustments which appeared in the second half. State and local government demand for goods and services rose in 1957 at about the same rate as in 1956. Outlays for the construction of educational facilities, public buildings, and highways showed sizable increases and provided a considerable fillip to the nation's heavy construction industry. Federal spending advanced in the first half of 1957, hitting a peak in the second quarter of the year. Nearly all of the second quarter gain was centered in outlays of the Defense Department, which, with a determined effort, succeeded in reducing cash outlays during the July-October period. Most of the savings achieved directly affected durable goods manufacturing industries, primarily aircraft and parts. In May the Defense Department ordered that $500 million of contracts be postponed until the beginning of the new fiscal year in July. Actually, no new contracts for military items were awarded until late September. The economy wave also led to the elimination of overtime work at firms producing defense materials, to production stretchouts, and to some contract cancellations, all of which tended to reduce activity in firms manufacturing defense hardware. In addition, stockpiling goals were extended, and both civilian and military payrolls were curtailed.

Consumer demand expands, but durable spending sluggish

Total consumer outlays during 1957 will probably exceed those in 1956 by 5 percent, but about half of the increase can be attributed to higher prices. Most of the gain is concentrated in services and nondurable goods. The rise in spending for nondurables was particularly strong in the spring and early summer. Outlays for food in the third quarter were 7 percent above a year ago reflecting price increases as well as greater consumption. A rise of 4 percent in spending on apparel represents primarily an increase in real purchases, as prices rose only slightly. In the fourth quarter, however, consumer spending for goods declined from the advanced levels earlier in the year (after seasonal adjustment), and most nondurables other than food and gasoline shared in the drop.

Consumer purchases of durable goods ran ahead of 1956 in dollar terms during the first nine months of the year. After a sharp increase in the first quarter, consumer outlays for durables fell back toward the level of the fourth quarter of 1956. Since prices were up from a year ago, particularly for automobiles, the increase in real terms was quite negligible; and declines in physical terms have occurred in some household durable lines, particularly major appliances. The sluggish movement of hard goods has been a disappointment to many producers and has contributed to the weakness in the output of durables generally.

Credit demands show marked change in 1957

The total private demand for credit continued to rise in the first three quarters of this year. The gain was smaller than in the same period in 1956, and its composition was appreciably changed. In the long-term capital markets the

volume of new corporate issues was $1.2 billion above that of the first three quarters of 1956, while state and local government flotations were about $1 billion larger. On the other hand, the increase in mortgage credit outstanding during the same period was $3 billion less this year than last. The swollen demand for long-term capital funds, especially pronounced in the first two quarters, is generally associated with the record volume of plant and equipment expenditures in the case of corporate issues and with enlarged construction programs in the case of nonfederal government issues. The smaller increase in mortgage credit reflects the reduced volume of residential construction this year.

In contrast to developments in the long-term markets, the demand for bank loans was less vigorous this year. At the end of September loans outstanding at all commercial banks had risen $2.5 billion from the end of December, 1956. This compares to a gain of more than $5 billion in a comparable period last year. In October and November repayments have exceeded borrowings, running contrary to usual seasonal developments. At weekly reporting member banks in large cities, loans outstanding at the end of November were actually down $448 million from the figure for December 26, 1956. This decline in loans largely resulted from a $700 million reduction in loans connected with purchasing or carrying securities, though agricultural and real estate loans also declined. Commercial and industrial borrowings registered a net gain of $245 million during the first 11 months contrasted with an increase of over $3 billion in the same period in 1956. This year's slower growth in commercial and industrial loans is associated with a lower rate of inventory accumulation as well as increased reliance on the long-term markets as a source of investment funds. "Other" loans, a category which includes loans to consumers, rose at about half of the 1956 rate.

The Treasury's relatively greater need for funds in 1957 than in 1956 more than offset the somewhat smaller private demand, with the result that the total demand for funds during the first three quarters of this year was substantially larger than a year ago.

The entire structure of interest rates responded to the greatly increased demand for funds by rising to the highest levels since the early thirties. By November the long-term capital markets began to evidence marked changes. Municipal bond yields began to decline in early September, and the rise in corporate bond yields was halted. Moreover, a 0.5 percent reduction in the discount rate at Federal Reserve Banks in November strengthened the belief that long-term interest rates had reached a peak and resulted in a further drop in bond yields. Short-term rates also declined significantly.

Twelfth District Business Activity Slackens in Final Quarter

Carried by the momentum of the 1956 boom, business activity in the Twelfth District continued to expand during the early months of the year. After a leveling during the summer a noticeable tapering off occurred, and by the fourth quarter it had become evident that economic adjustments underway in the District were somewhat more severe than in the nation as a whole.

At the beginning of the fourth quarter total nonfarm employment had slipped back to the December 1956 level (after seasonal adjustment). As a corollary to the absence of overall employment growth, unemployment as a percentage of the labor force in Pacific Coast states rose from 3.4 in January to 5.1 in October after seasonal adjustment. The relative scarcity of new job opportunities also contributed to a smaller growth in the labor force in Pacific Coast states. In the first ten months of 1957 an expansion of 1.2 percent occurred, about one-third as great as the percentage growth registered in the same period in 1956. By contrast, labor force growth in the nation as a whole continued at a rate approximately equal to that of 1956, and unemployment as a percent of the labor force did not reach 5 percent until November.

Crosscurrents in the District economy sketched by employment data parallel those in the nation, but they are considerably more pronounced. Losses in commodity producing industries over the year were exactly counterbalanced by additions to state and local government payrolls, the continued expansion of finance and

service industries, and a 1 percent gain in employment in wholesale and retail trade. Employment in transportation, communication, and public utilities showed no change from the December 1956 figure. The greater percentage growth of service industries can be traced to the District's more rapid population growth and a higher average level of per capita income. Among commodity producing industries, the drop in mining activity reflects the relatively greater importance of nonferrous metals in District industry. Production of these ores has been adjusted downward in line with a reduced level of demand.

District manufacturing employment also shows a larger percentage drop from last December than the loss for the nation as a whole. Principally, this is due to the reduced demand for military goods, particularly for aircraft. Also affected are supporting firms in electronics, machinery, and fabricated metals. In aircraft, employment advanced by 19,000 from December to June and then fell 22,000 by October. Additional employment cuts are expected. Curtailment of defense spending for military goods has converted the main propellant of the 1956 rise in business activity to the most significant contracting force operating in the District economy in 1957.

The District construction boom slows in 1957

Through October the total value of building permits issued in District states was running more than 6 percent less than that for a comparable period in 1956. Residential valuations were down 8 percent, while nonresidential authorizations were off 5 percent.

Since permit coverage excludes building in nonmetropolitan areas and since valuation figures understate actual dollar outlays when construction costs are rising, contract award series present a slightly more favorable picture of construction activity in the District. Total awards in the first 10 months of the year increased 3 percent over the same period in 1956, largely because of a 16 percent jump in utilities and public works contracts. Nonresidential awards show no change, while residential contracts fell 2 percent. A smaller increase in total awards is reported for the nation as a whole, though gains occurred in both residential and nonresidential contracts. The main part of the difference between the District and the nation is accounted for by an increase of 5 percent in public works and utility awards in the nation.

Production declines reported in a number of District industries

A comprehensive measure of industrial activity in the Twelfth District is not available. What information does exist, however, indicates that losses have occurred in a number of lines since 1956. Total production of crude and refined petroleum products in the first three quarters fell 3 percent below that of a comparable period in 1956. Demand, particularly from the military, has shown a large decline in recent months. In the District lumber industry, continued weakness in the nation's residential housing industry led to further price reductions during the year and sizable cuts in production. Output of Douglas fir and redwood in the first 10 months of the year fell 10 percent from the 1956 level, while production of Western pine suffered a cut of 12 percent. Douglas fir plywood, however, shows a gain of more than 4 percent.

Through October, steel production in the Western Steel District registered a gain of 10 percent from the comparable period a year ago. This margin is threatened by the fact that the operating rate is expected to slip further in the closing months of the year. By contrast, operations in the fourth quarter of 1956 were at full-capacity levels.

Man-hours worked in Pacific Coast manufacturing firms—a rough measure of manufacturing production—cumulate to a total through September 1957 that is 4 percent greater than the sum for the first 3 quarters of 1956. By October, however, all industries were at levels below October 1956. Declines from year-ago months first appeared in August and by October measured 6 percent. Prospects as of this writing were that greater-than-seasonal declines would continue in the closing months of the year.

Retail trade shows marked changes from 1956

Sales at retail establishments in the District (based upon data for stores operating from one

to ten retail outlets) in the first nine months of the year show a growth of 3 percent from the same number of months in 1956. Not only was this increase smaller than the 4 percent gain for the entire nation, it was also only half as great as the 1955-56 percentage gain. Preliminary data indicate that sales during the fourth quarter were down slightly from those of the final quarter of 1956. At District department stores, cumulative sales for the year through November were about the same as sales for a comparable period a year earlier.

The largest sales gains were reported by furniture and appliance stores and automotive establishments, both of which suffered substantial losses from 1955 to 1956. Gains this year were 12 and 10 percent, respectively. Auto registrations in District states through October were 2 percent greater than for the same period in 1956.

Not all stores selling durables fared as well, however. The dollar volume of sales at lumber, building materials, and hardware establishments fell 15 percent. Apparel stores reported no gain from the 1956 level, while food sales increased only 1 percent in spite of continued population growth and price increases that have occurred. District consumers, however, increased spending at eating and drinking establishments by 5 percent, and sales of gasoline service stations rose more than 6 percent.

Cash farm income drops slightly in the District

Gross income received by District farmers appears to have dropped moderately in 1957. Total cash receipts from farm marketings in the first three quarters were down about 1 percent from those for the same period in 1956. Marketings of crops continued at about the same physical volume, but lower average prices produced a 4 percent drop in cash receipts. Marketings of livestock and livestock products were about 5 percent lower. Because of higher average prices, however, receipts rose more than 3 percent. This gain was not sufficient to offset the decline in income from crops. Government payments about equalled those for the January-September period in 1956.

Bank credit expands at a reduced rate

Loans outstanding at weekly reporting member banks in the District rose $226 million during the first 11 months of 1957, approximately half the amount of the 1956 gain over the same period. Although a very large proportion of this year's increase in total loans occurred in commercial and industrial borrowings, this category rose only a third as much as in 1956. Among business borrowers, retailers, public utilities and transportation firms, and "Other" manufacturing and mining firms increased their indebtedness by a greater margin than in 1956. In contrast to developments in 1956, firms manufacturing lumber and forest products, commodity dealers, construction companies, and firms engaged in wholesale trade reduced net borrowings. The largest business borrowers in 1956, food and liquor processors and firms manufacturing metal products, increased indebtedness at reporting member banks by relatively small amounts this year.

Real estate loans, reflecting reduced activity in types of construction financed by commercial banks, fell $61 million from January to the end of November this year in contrast to a gain of $432 million in the same period in 1956. Loans to security brokers and dealers rose slightly, while loans to non-dealers for the purchase or carrying of securities fell. Both of these changes were different in sign from 1956. "Other" loans —a category that includes loans to consumers— expanded at a rate 30 percent less than in 1956, while agricultural loans changed only slightly.

District reporting member banks extended an additional $275 million of credit by increasing their security portfolios in the first 11 months of 1957. Most of the gain represents increased holdings of state and local government issues. In 1956 when the demand for loans expanded sharply, $830 million of United States government obligations and $109 million of other securities were sold off.

What Farmers Pay for Bank Loans

At the present time, farmers have debts equal to about $20 billion. About one-fourth of this farm debt is held by commercial banks. Whether credit is obtained from a commercial bank or from other sources, it costs money to borrow money. The average annual cost of farm credit at District banks in mid-1956 was 6.1 percent, a rate which was roughly comparable with that charged small business firms by commercial banks. These facts were drawn from the Agricultural Loan Survey conducted in mid-1956. A separate survey of commercial bank lending to business firms which was conducted nine months earlier showed an average rate of 5.9 percent on loans outstanding to small business firms.

Interest rates on the different farm loans held by commercial banks vary considerably, however. Thus we are faced with the question: Why is the interest rate charged one farmer different from that charged another farmer? And, indeed, why do separate farm loans to the same borrower often carry different interest rates? Answers to these questions will be found in the fact that farmers don't all look alike to the lenders, and neither do the different kinds of loans that can be made to a single borrower. One farmer may be worth more than another or may have a better record of repayment on former loans. A loan may be secured or unsecured, short or long term, instalment or single payment. These factors and others were found to be importantly related to interest rates charged, both in the District and in the nation as a whole. Some of them, of course, are more important than others, as we shall see in the details presented below.

General factors affecting the interest rates: market scope, costs, and risks

The cost of loanable funds is not uniform to all borrowers in all places and at all times. A large number of factors affect the rate of interest charged. Among them are (1) the scope of the market from which loanable funds are available, (2) the inconvenience and cost of acquiring and servicing the particular obligation of debt, (3) the cost of exchanging obligations of debt for more liquid assets, and (4) the risk associated with the borrower's ability to pay.

The markets for loanable funds vary considerably in scope depending in part on the availability of information regarding the ability of the borrower to repay the loan and on his business reputation. Treasury securities, for example, are widely accepted throughout the country as are securities of most large corporations. The market for loanable funds open to the small farmers, on the other hand, is often restricted to a very small area, probably the local community where he does his trading. Because of such differences in the availability of loanable funds, the geographic pattern of interest rates on Treasury securities is much more uniform than on notes of individuals. In the Philadelphia Federal Reserve District, for example, the average rate on outstanding farm loans between $5,000 and $10,000 was 5.1 percent compared with 6.5 percent in the Dallas District. The interest rates charged individuals reflect to a great degree the relative supply of loanable funds in the local market, whereas the securities of the Treasury reflect the relative supply of loanable funds in a much broader market.

As markets for government securities and securities of well-known corporations are usually highly developed, such securities may be bought and sold with ease and are usually less costly to buy and sell than credit obligations of less widely known individuals or businesses. Since many loans to individuals and small businesses are made from loanable funds in a localized area, it is often necessary for a lender to sell such obligations at a considerable discount to induce some other party to purchase them. For example, acquired notes in the District carried an average interest rate of 8.4 percent compared with 5.9 percent for loans made directly to farmers. (Table 1) In extending the credit in the first instance to the smaller borrowers it is usually necessary to conduct a fairly thorough credit investigation which increases the cost of making such loans. Such investigations are not common when the maker of a credit obligation is well known.

TABLE 1

INTEREST RATES ON DIRECT AND ACQUIRED BANK LOANS TO FARMERS BY SIZE OF NOTE
TWELFTH DISTRICT
(Average annual rate on loans outstanding June 30, 1956)

	Amount outstanding (thousands of dollars)	All sizes	Size of note[1] Under $500	$500-$999	$1,000-$4,999	$5,000-$9,999	$10,000-over
Direct notes	656,324	5.9	7.7	7.3	6.5	5.8	5.5
Acquired notes	81,866	8.4	9.2	8.7	8.4	8.0	8.2
Classification not reported	208	8.0	8.0	7.0	8.2	..	..
All notes	738,398	6.1	8.4	7.7	7.0	5.9	5.6

[1] When originally made or (if renewed) when last renewed.

Interest rates also tend to reflect the risk attached to a credit obligation. In general, interest rates tend to be higher on loans with long maturities than for loans callable on demand or with short maturities. This is partly because the repayment ability of the borrower in the distant future is more uncertain than it is for demand or short-term loans. Interest rates are not the only way in which the risk element may be considered in lending. For instance, interest charges may be identical on two loans—although one is much riskier than the other—but more collateral or a shorter repayment period instead of a higher interest charge may be required on the riskier loan in view of the greater uncertainty of repayment.

Strong seasonal deposit swings affect character of rural bank loans

Interest rates charged by commercial banks are influenced by all the factors mentioned in the previous section. In addition, however, there are certain attributes of banking that influence lending practices. These, in turn, are reflected in interest rates charged by commercial banks.

Most rural banks which are convenient to the farmer are necessarily small, and their loans and deposits vary seasonally with the fortunes of their customers. Industrial diversification is not available to smooth the peaks and valleys of their needs for and supplies of funds. Furthermore, by the very nature of the case, peak needs will never coincide with peak supplies; for when the farmer gets in his crop, he is long on cash. During the next few months he draws down his account, and by the time he asks for a seed, feed, or equipment loan six months later, the bank too has reached a minimum in its deposits available for lending. Thus, the banker reacts to protect his liquidity with loans of short maturity and with investment in short-term Government obligations to take care of seasonal fund surpluses.

The desire to stay liquid combined with the seasonal nature of agriculture induces country banks to make mainly short- and intermediate-term loans. These are usually used to purchase livestock or machinery, consumer durables, or to tide the farmer over in his current expenses. Loans of this type accounted for about three-fourths of the dollar volume of loans by commercial banks to farmers in mid-1956, as shown in Table 2. Insurance companies and individuals tend to widen the market for real estate loans. It pays them to investigate the permanent assets

TABLE 2

INTEREST RATES ON BANK LOANS TO FARMERS BY PURPOSE AND SIZE OF NOTE
TWELFTH DISTRICT
(Average annual rate on loans outstanding June 30, 1956)

Purpose	Amount outstanding (thousands of dollars)	All sizes	Size of note[1] Under $500	$500-$999	$1,000-$4,999	$5,000-$9,999	$10,000-over
Purchase of farm real estate	101,773	5.3	7.5	7.5	5.9	5.3	5.2
Refinancing	55,002	5.6	9.7	7.9	6.6	5.9	5.3
Current expense	314,636	5.9	7.4	6.9	6.3	6.0	5.6
Intermediate-term investment	212,686	7.1	9.2	8.6	7.9	6.3	6.0
Other	54,302	5.8	7.4	7.2	6.2	5.8	5.6
All notes	738,398	6.1	8.4	7.7	7.0	5.9	5.6

[1] When originally made or (if renewed) when last renewed.

securing the large amounts involved at long term even if they don't maintain local offices. Banks, on the other hand, with their intimate knowledge of local people and conditions, are peculiarly suited to take care of needs more transient and difficult to evaluate.

But branch banks are not similarly influenced

The structure of the banking system may also be a factor influencing the ability or desire to make farm loans for longer periods of time. In the Twelfth Federal Reserve District, for instance, branch banking is quite common, and time deposits are more important than elsewhere in the country. Branch systems extend over wide areas geographically and into localities where income of depositors is not as subject to seasonal fluctuation as is apparent at unit banks in some rural areas. The broader source of deposits should permit these banks to extend non-real estate loans with longer maturity periods than in areas where branch banking is less common. This may account for the longer maturity period for non-real estate loans in the District than in the country as a whole. Bank lending for the purchase of farm real estate also might be expected to be somewhat more prevalent in this District than nationally, as these loans generally have a longer repayment period than other types of farm loans. Farm real estate loans, however, make up such a small part of commercial bank loans to farmers that this factor does not stand out.

And the District has larger farms and larger loans

In addition to institutional factors, interest rates are influenced by the type of agricultural production being financed. Considerable difference is apparent between the type of agricultural production activities being carried on in the District and in the country as a whole. In the District about 60 percent of cash receipts generally come from the marketing of crops while in the country as a whole receipts from marketings of livestock and livestock products are of greater importance than those from crop marketings. Moreover, the size of District farms is large, a factor which is reflected in the average outstanding balance on farm loans in the District of $3,154 compared with $1,431 nationally.

Rates Vary with Loan and Borrower Characteristics

So far, this article has dwelt on the broader categories of variation in interest rates and on what may be termed institutional reasons for their differences. But interest rates also vary with differences in the original size of the loan, net worth of the borrower, length of the repayment period, amount and nature of security, method of repayment, and purpose of the loan. The remainder of this article will be devoted to focusing the shafts of light thrown by the Agricultural Loan Survey on these more specific reasons for differences in rates.

Lower rates on larger loans and those secured by real estate

Interest rates charged on farm loans were found to be consistently associated with the size of loan. The mid-1956 survey indicates that rates decline as the size of note increases, as shown in Table 3. Size of loan, of course, is associated with many factors affecting interest rates. The cost of handling farm loans, for instance, is one of these. Costs such as those related to setting up and servicing loans tend to rise at a slower rate than the size of loan. Hence, these somewhat fixed costs are a larger proportion of the face value of a small note than of a large one. Borrowers of large amounts may also have more alternative sources of funds than small borrowers, be better informed, and be more able to "shop around" for lower rates. In addition, the net worth of the borrower is certainly a consideration. For loans of the same size the risk of repayment would generally be considered to be less on the loan to the borrower with the higher net worth, and it appears that borrower net worth is more than proportionately larger as the size of the outstanding note increases.

Interest rates were generally lower on notes secured by real estate than on other loans, as is shown in Table 3. Real estate loans carried an average rate of 5.5 percent compared with 6.3 percent for other loans. The difference in the level of rates, although persisting for most size loans, was not sufficient to indicate with a high degree of reliability that real estate is really

TABLE 3

INTEREST RATES ON BANK LOANS TO FARMERS BY SECURITY AND SIZE OF NOTE
TWELFTH DISTRICT
(Average annual rate on loans outstanding June 30, 1956)

	Amount outstanding (thousands of dollars)	All sizes	Size of note[1]: Under $500	$500-$999	$1,000-$4,999	$5,000-$9,999	$10,000-over
Secured by real estate	174,423	5.5	9.2	8.7	6.4	5.4	5.3
Other	563,975	6.3	8.3	7.7	7.1	6.1	5.7
All loans	738,398	6.1	8.4	7.7	7.0	5.9	5.6

[1] When originally made or (if renewed) when last renewed.

considered a higher quality of collateral by lenders than other types of security. On single payment loans, for instance, rates on some size loans were higher on real estate secured loans than on other loans. Moreover, the generally lower rates on real estate loans may be a reflection of the broader and perhaps more competitive market for funds to be invested in real estate mortgages than is usually available to borrowers for non-real estate purposes.

Higher rates on longer loans and instalment loans

Maturity of loans, as shown in Table 4, had some effect on interest rates. Within various size groups of loans, interest rates tended to increase as maturity lengthened, particularly for repayment periods of less than five years. Type of security apparently was at least partially responsible for this relationship, as it was more apparent for loans not secured by real estate than on loans secured by real estate. The effect of repayment period on interest charges apparently overshadowed the effect of setting up and servicing the loan. As these latter costs are somewhat fixed, they would be spread over longer repayment periods as maturity increased. This would reduce the annual cost.

Method of repayment was as influential in affecting interest rates as the size of loan, as shown in Table 5. The variation in rates between repayment methods was greater than the variation in interest rates between the smallest and the largest size group of loans. Highest rates were on loans that were scheduled for repayment in instalments with interest charged on the original amount of the loan. Rates on these loans averaged 9.7 percent compared with 5.7 percent on other instalment loans (interest charged on the amount

TABLE 4

INTEREST RATES ON BANK LOANS TO FARMERS BY MATURITY, SECURITY, AND SIZE OF NOTE
TWELFTH DISTRICT
(Average annual rate on loans outstanding June 30, 1956)

Loan characteristics	Amount outstanding (in thousands of dollars)	All sizes	Size of note[1]: Under $500	$500-$999	$1,000-$4,999	$5,000-$9,999	$10,000-over
All loans		6.1	8.4	7.7	7.0	5.9	5.6
Maturity							
Demand	44,136	5.8	6.8	6.2	5.9	6.0	5.7
1-6 months	178,692	6.0	7.6	7.0	6.3	5.9	5.6
9 months-1 year	234,407	5.9	8.2	7.7	6.7	5.9	5.5
15 months-5 years	161,484	7.2	9.6	8.9	8.1	6.5	6.0
Over 5 years	119,679	5.3	..	6.0	5.9	5.3	5.2
Secured by real estate		5.5	9.2	8.7	6.4	5.4	5.3
Maturity							
Demand	830	6.1	..	..	6.3	..	6.0
1-6 months	2,098	6.2	9.0	9.0	6.0	6.0	6.0
9 months-1 year	6,751	6.1	9.5	7.3	6.7	5.9	5.7
15 months-5 years	48,429	5.9	9.1	9.0	6.8	5.6	5.7
Over 5 years	116,315	5.3	..	6.0	6.0	5.3	5.0
Not secured by real estate		6.3	8.3	7.7	7.1	6.1	5.7
Maturity							
Demand	43,306	5.8	6.8	6.2	5.9	6.0	5.7
1-6 months	176,594	6.0	7.6	6.9	6.3	5.9	5.6
9 months-1 year	227,656	5.9	8.2	7.7	6.7	5.9	5.5
15 months-5 years	113,055	7.7	9.6	8.8	8.4	7.5	6.3
Over 5 years	3,364	5.4	..	..	4.8	6.0	5.5

[1] When originally made or (if renewed) when last renewed.

TABLE 5

INTEREST RATES ON BANK LOANS TO FARMERS BY REPAYMENT METHOD, SECURITY, AND SIZE OF NOTE
TWELFTH DISTRICT

(Average annual rate on loans outstanding June 30, 1956)

Loan characteristics	Amount outstanding (in thousands of dollars)	All sizes	Size of note[1] Under $500	$500-$999	$1,000-$4,999	$5,000-$9,999	$10,000-over
All loans							
Repayment method							
Single payment	418,322	5.9	7.4	6.9	6.3	5.9	5.6
Instalment—interest charged on unpaid balance	259,682	5.7	7.8	7.6	6.5	5.6	5.3
Instalment—interest charged on original amount	60,394	9.7	9.8	9.6	8.9	10.2	9.7
Secured by real estate	174,423	5.5	..	..	..	..	..
Repayment method							
Single payment	12,991	5.9	9.2	7.4	6.3	5.5	5.8
Instalment—interest charged on unpaid balance	156,827	5.4	6.8	6.9	6.0	5.4	5.3
Instalment—interest charged on original amount	4,606	8.8	9.7	9.6	8.6	6.0	..
Not secured by real estate	563,975	6.3	..	..	..	..	..
Repayment method							
Single payment	405,331	5.9	7.4	6.9	6.3	5.9	5.6
Instalment—interest charged on unpaid balance	102,855	6.1	7.9	7.6	6.8	6.3	5.4
Instalment—interest charged on original amount	55,789	9.8	10.3	9.8	9.7	9.0	10.2

[1] When originally made or (if renewed) when last renewed.

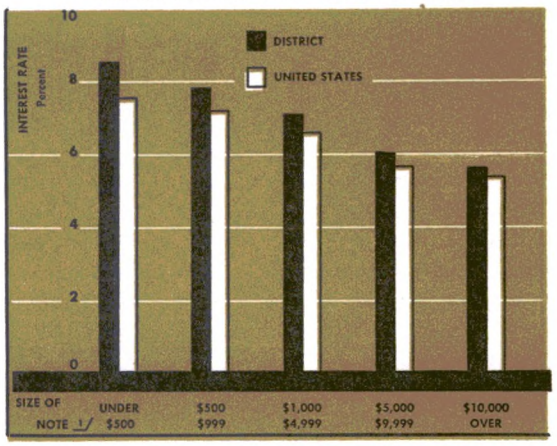
of the loan outstanding) and 5.9 percent on loans to be repaid in a single payment. But they were of minor importance in terms of dollar volume—accounting for only 8 percent of the credit outstanding. Nevertheless, the distribution of these loans by size groups was partially responsible for the higher rates on small loans. Highly concentrated in the loan size groups under $5,000 were these high interest bearing instalment loans with interest chargeable on the original amount of the loan. Hence, this repayment method influenced the interest rates charged on the small notes much more than those charged on loans larger than $5,000. While the higher effective rate on loans with interest charged on the original amount may partly reflect ignorance on the part of the borrower—to whom 6 percent on the original amount may sound equivalent to 6 percent of the outstanding balance—it probably also reflects a higher rate of interest associated with higher risk.

Purpose of loan gives less reliable clue to rate

Loans may also be classified by purpose for which the funds are to be used, since it is common practice among lenders to ascertain this type of information. When this is done with farm credit, intermediate-term investment loans—so-called because they usually run between one and five years and are used to finance the purchase of machinery, consumer durables, livestock, and farm improvements—are found to bear higher rates than any other class, whereas real estate loans bear the lowest rates. (Table 2) Investigation of the former class, however, confirms the suspicion that most of these are instalment loans with interest computed on the original amount, and it has already been shown that rates are low on real estate loans because of type of security and breadth of the market. Higher rates which were observed on short-term notes in large amounts not secured by real estate but for the purpose of buying real estate may have been due to the fact that these were temporary contracts entered into during the course of making arrangements for more permanent financing.

CHART 1

INTEREST RATES ON BANK LOANS TO FARMERS
TWELFTH DISTRICT AND UNITED STATES—JUNE 30, 1956



[1] When originally made or (if renewed) when last renewed.

District interest rates higher than the nation's

Every size category of loan carried a higher interest rate in the Twelfth District than in the nation as a whole. (Chart 1) The same statement holds in each classification of loan covered by the Survey with the single exception of instalment loans under $5,000 with interest calculated on the original balance, a relatively small class. The same general conclusion may be drawn from the surveys of loans to business.

The reason often advanced to explain this differential is that the West is a capital importing area and therefore must pay a premium in its rates over the rest of the country in order to attract the funds it needs from the areas of surplus. In farm real estate loans, however, where the market is probably widest of those examined, the rates of the District are closer to those of the country as a whole and closest in the larger notes where nationwide insurance companies are known to operate most extensively. This may indicate that debt instruments other than mortgages are unattractive to Eastern investors in spite of the higher yields obtainable in the rapidly growing West.

Rates rise over the past ten years

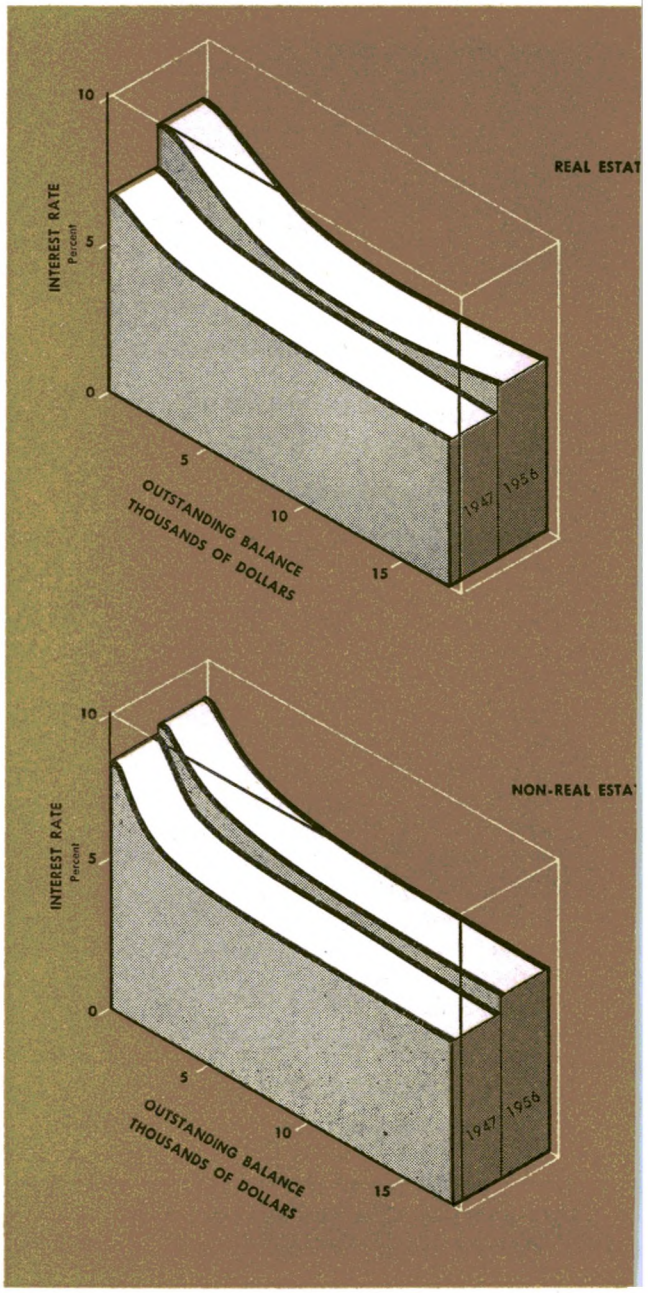
It is hardly news to anyone that interest rates in every category of borrowing have been rising over the country as a whole for some time now. A 1947 loan survey, although not strictly comparable in coverage, provides a convenient benchmark from which to chronicle rises in rates on farm loans.

To give some perspective, loans in all categories in the surveys carried smaller rises in rates than the increase of 1.5 percent in money rates on Treasury bills between the two surveys. This was due in part to increased size of loans in comparable categories, since larger loans carry lower rates, and also to the longer-term character of nearly all farm loans as compared with bills. Rates on long-term debt rarely fluctuate as much as on short-term debt. Thus the average rate on outstanding notes not secured by farm real estate increased from 5.5 percent in mid-1947 to 6.3 percent in mid-1956, while the average size of loan increased from $2,030 to $2,737. The average interest on notes secured by real estate increased during this period from 5.0 percent to 5.5 percent, while size of these loans increased from $4,930 to $6,215. Small loans carried some-

CHART 2

INTEREST RATES ON BANK HELD FARM LOANS BY TYPE OF SECURIT

TWELFTH DISTRICT—JUNE 30, 1947 AND 1956



what greater shares of these increases than large ones, perhaps due to the worsening income position of farmers as indicated by their greater need to secure such notes with real estate. Specific inclusion of consumer instalment loans in 1956 and not in 1947 would also increase the spread in the smaller loans. (Chart 2)

The difference in average rates understates the spread in rates between survey years. This is because the dollar volume of loans outstanding, originally written for $25,000 and over, accounted for a considerably larger portion of the total dollar amount outstanding in 1956 (37 percent) than in 1947 (19 percent); and large loans carried lower interest rates. Another factor is the trend in interest rates prior to the survey date. The repayment period on farm loans secured by farm real estate is generally for a number of years. Since the loans included in the surveys included all loans outstanding as of the survey date, regardless of their age, some of the loans may have been several years old and may have been originally made at rates quite different from those in effect on a particular day or month. The average rate on real estate secured farm loans in the 1947 survey was probably closer to the rate in effect on new loans just prior to the survey date than was the case for loans included in the 1956 survey. For a few years prior to the 1947 survey, interest rates were fairly constant whereas rates were trending upward prior to the 1956 survey. (This trend was temporarily interrupted in 1953 and 1954, but interest rates recovered rapidly from the low point in 1954.) The rising trend of interest rates would hold average rates on outstanding notes somewhat below the level of rates in effect in mid-1956.

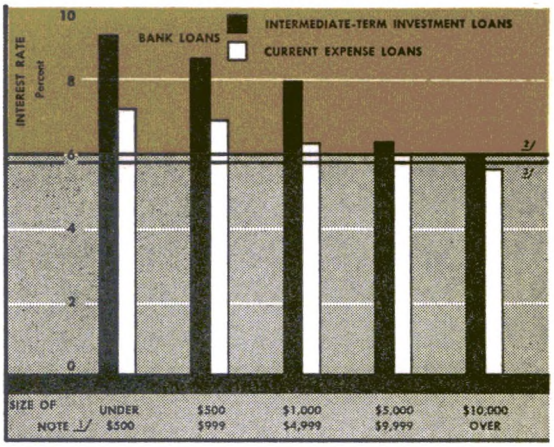
Interest rates higher on farm loans held by banks than those of Production Credit Associations

Aside from banks, the Production Credit Associations located throughout the District[1] extend significant amounts of non-real estate credit to farmers. The loans of these associations are confined largely to those purposes which are similar to those defined in the bank survey in mid-1956 as current expense and intermediate-term investment loans. The most common rate charged in mid-1956 by these associations was 6 percent, which is very close to the average rate on outstanding bank loans for current expense purposes (5.9 percent) but somewhat lower than the average rate on bank loans for intermediate-term investment purposes (7.1 percent).

[1] A survey of PCA lending to farmers was conducted by the Farm Credit Administration at the same time (June 30, 1956) as the survey of commercial bank lending to farmers.

CHART 3

INTEREST RATES ON FARM LOANS: BANKS AND P.C.A.'S
TWELFTH DISTRICT—JUNE 30, 1956



[1] When originally made or (if renewed) when last renewed.
[2] Berkeley farm credit district.
[3] Spokane farm credit district.

As interest charges on PCA loans do not vary by the size of loan[2], it would appear that the incentive to small borrowers to utilize credit extended by PCA's would be greater than to borrowers who required large amounts of credit. Comparison on the basis of interest rates alone is by no means a complete indication of the attractiveness of a type of credit. Service or other charges, the prompt and assured availability of funds, or the availability of complementary services, are also factors. Nevertheless, interest rates charged by commercial banks declined as the size of note increased, and PCA rates are clearly lower except on the large size loans. Shown in Chart 3 is the average rate on outstanding loans held by PCA's in the Berkeley and Spokane Districts in mid-1956, along with the rates charged by commercial banks on similar type loans in the Twelfth Federal Reserve District.

[2] Interest rates in effect at a particular association do not vary with the size of loan, but loan service fees may. As no data are available to show how these service fees vary with size of loan, the average fee rate was used. In the Berkeley district this average charge was 0.30 percent, in the Spokane district, 0.22 percent.

Revised Department Store Indexes

In order to bring the department store sales and stock indexes published by the Federal Reserve Bank of San Francisco into agreement with the trends in actual sales figures obtained by the United States Bureau of the Census in its Census of Retail Trade for 1948 and 1952, this Bank has revised its indexes for the years 1949-1957. At the same time that adjustments were being made in Census data, a review of seasonal adjustments was made and new seasonal factors derived. In addition to these two adjustments it was decided to give equal weight to each trading day during the month. Prior to this change if a month had five Saturdays, one third of a day was added to the number of trading days for calculating daily average sales.

Persons interested in obtaining copies of revised Twelfth District sales and stock indexes or revised sales indexes for any city, area, or state for which we publish them may do so by writing to the Federal Reserve Bank of San Francisco, 400 Sansome Street, San Francisco, California. A reprint of the article describing the revision that appeared in the *Federal Reserve Bulletin,* December 1957, will also be supplied on request.

BUSINESS INDEXES — TWELFTH DISTRICT[1]

(1947-49 average = 100)

Year and month	Industrial production (physical volume)[2]							Total nonagricultural employment	Total mf'g employment	Carloadings (number)[2]	Dep't store sales (value)[2]	Retail food prices[3, 4]	Waterborne foreign trade[3, 5]	
	Lumber	Petroleum[3] Crude	Petroleum[3] Refined	Cement	Lead[3]	Copper[3]	Electric power						Exports	Imports
1929	95	87	78	54	165	105	29	....	....	102	30	64	190	124
1933	40	52	50	27	72	17	26	....	....	52	18	42	110	72
1939	71	67	63	56	93	80	40	....	55	77	31	47	163	95
1948	104	101	100	104	105	101	101	102	102	100	104	103	86	98
1949	100	99	103	100	101	93	108	99	97	94	98	100	85	121
1950	113	98	103	112	109	113	119	103	105	97	105	100	91	137
1951	113	106	112	128	89	115	136	112	120	100	109	113	186	157
1952	116	107	116	124	87	112	144	118	130	101	114	115	171	200
1953	118	109	122	130	77	111	161	121	137	100	115	113	140	308
1954	116*r*	106	119	133	71	101	172	120	134	96	114	113	131	260
1955	124*r*	106	122	145	75	117	192	127	143	104	122	112	164	308
1956	119*r*	105	129	156	77	118	210	134	152	104	129	114	195	443
1956														
October	110	104	128	163	81	127	217	136	154	102	130	115	256	563
November	111	104	135	146	79	123	216	137	156	100	132	116	242	401
December	112	103	132	139	72	123	210	138	159	106	131	116	234	436
1957														
January	108	102	131	120	79	125	220	139	160	105	131	116	237	421
February	115	102	130	127	88	138	211	138	159	96	127	117	269	417
March	115	101	132	140	88	133	221	138	159	100	133	116	267	489
April	111	101	132	154	78	135	228	138	159	103	127	117	298	534
May	111	101	138	157	82	126	229	138	159	99	126	117	283	698
June	114	101	131	152	75	130	239	139	160	100	131	118	252*r*	511
July	109	101	133	162	68	133	238	138	159	94	133	118	188	770
August	...	101	137	160	74	142	233	138*r*	156	97	131	118	....	551
September	...	102	135	169	74*r*	152	217	138	155	93*r*	134	119	....	....
October	...	101	132	...	75	148	...	138	153	91	125	119	....	....

BANKING AND CREDIT STATISTICS — TWELFTH DISTRICT

(amounts in millions of dollars)

Year and month	Condition items of all member banks[6]				Bank rates on short-term business loans[8]	Member bank reserves and related items					Bank debits Index 31 cities[5, 12] (1947-49 = 100)[2]
						Factors affecting reserves:					
	Loans and discounts	U.S. Gov't securities	Demand deposits adjusted[7]	Total time deposits		Reserve bank credit[9]	Commercial[10]	Treasury[10]	Money in circulation[9]	Reserves[11]	
1929	2,239	495	1,234	1,790	.....	− 34	0	+ 23	− 6	175	42
1933	1,486	720	951	1,609	.....	− 2	− 110	+ 150	− 18	185	18
1939	1,967	1,450	1,983	2,267	.....	+ 2	− 192	+ 245	+ 31	584	30
1949	5,925	7,016	8,536	6,255	3.20	+ 13	− 930	+ 378	− 65	1,924	102
1950	7,093	6,415	9,254	6,302	3.35	+ 39	−1,141	+1,198	− 14	2,026	115
1951	7,866	6,463	9,937	6,777	3.66	− 21	−1,582	+1,983	+ 189	2,269	132
1952	8,839	6,619	10,520	7,502	3 95	+ 7	−1,912	+2,265	+ 132	2,514	140
1953	9,220	6,639	10,515	7,997	4 14	− 14	−3,073	+3,158	+ 39	2,551	150
1954	9,418	7,942	11,196	8,699	4.09	+ 2	−2,448	+2,328	− 30	2,505	154
1955	11,124	7,239	11,864	9,120	4.10	+ 38	−2,685	+2,757	+ 100	2,530	172
1956	12,613	6,452	12,169	9,424	4.50	− 52	−3,259	+3,274	− 96	2,654	189
1956											
November	12,504	6,431	11,867	9,235	.....	0	− 143	+ 209	+ 38	2,579	195
December	12,804	6,383	12.078	9,356	4.65	− 17	− 303	+ 451	+ 38	2,654	200
1957											
January	12,488	6,505	11,812	9,587	.....	+ 33	− 558	+ 249	− 144	2,548	206
February	12,556	6,356	11,279	9,690	.....	+ 41	− 816	+ 494	− 139	2,517	200
March	12,576	6,177	11,129	9,794	4.74	− 37	− 170	+ 170	− 9	2,495	199
April	12,649	6,520	11,622	9,839	.....	− 35	− 445	+ 430	− 31	2,560	202
May	12,694	6,315	11,210	9,995	.....	+ 56	− 261	+ 209	+ 54	2,526	200
June	12,911	6,249	11,310	10,155	4.81	− 29	− 374	+ 402	+ 20	2,483	203
July	12,912	6,319	11,407	10,188	.....	− 49	− 426	+ 320	+ 6	2,457	205
August	12,945	6,313	11,329	10,220	.....	+ 50	− 145	+ 292	+ 39	2,592	197
September	13,178	6,293	11,561	10,301	5.21	− 109	− 434	+ 480	− 30	2,581	204
October	13,064	6,433	11,570	10,417	.....	+ 76	− 322*r*	+ 159*r*	− 8	2,517	200
November	13,185	6,357	11,770	10,304	.....	+ 14	− 298	+ 447	+ 37	2,652	202

[1] Adjusted for seasonal variation, except where indicated. Except for department store statistics, all indexes are based upon data from outside sources, as follows: lumber, California Redwood Association and U.S. Bureau of the Census; petroleum, cement, copper, and lead, U.S. Bureau of Mines; electric power, Federal Power Commission; nonagricultural and manufacturing employment, U.S. Bureau of Labor Statistics and cooperating state agencies; retail food prices, U.S. Bureau of Labor Statistics; carloadings, various railroads and railroad associations; and foreign trade, U.S. Bureau of the Census. [2] Daily average. [3] Not adjusted for seasonal variation. [4] Los Angeles, San Francisco, and Seattle indexes combined. [5] Commercial cargo only, in physical volume, for Los Angeles, San Francisco, San Diego, Oregon, and Washington customs districts; starting with July 1950, "special category" exports are excluded because of security reasons. [6] Annual figures are as of end of year, monthly figures as of last Wednesday in month. [7] Demand deposits, excluding interbank and U.S. Gov't deposits, less cash items in process of collection. Monthly data partly estimated. [8] Average rates on loans made in five major cities. [9] Changes from end of previous month or year. [10] Minus sign indicates flow of funds out of the District in the case of commercial operations, and excess of receipts over disbursements in the case of Treasury operations. [11] End of year and end of month figures. [12] Debits to total deposits except interbank prior to 1942. Debits to demand deposits except U.S. Government and interbank deposits from 1942. *p*—Preliminary. *r*—Revised.