Buiness Review

FEDERAL RESERVE BANK of CLEVELAND

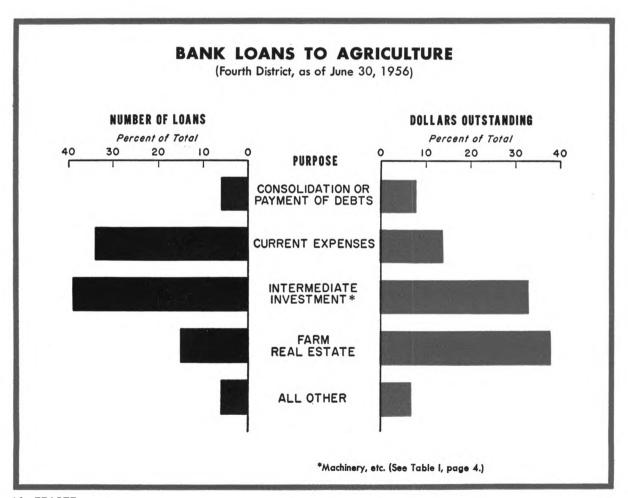
December 1956

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In a supplement to this issue:

NORTHWESTERN OHIO, first of a series on CROSS SECTIONS of the Fourth Federal Reserve District



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Farm Borrowers And Their Bank Loans

DANK CREDIT in use by farmers has more than doubled over the past decade in the Fourth Federal Reserve District. The gain is still under way. In one respect this growth in credit use may seem quite normal; in fact it might even appear conservative in view of the higher prices on goods which farmers buy, as well as the greatly increased use of machinery, fertilizer and other instruments of technological advance. But the growth in farm debt takes on a different emphasis in the light of the fact that farm income, from which the debt must be repaid, has tended downward over most of the past ten years.

The widening gap between farm income and farm debt raises certain questions with respect to the manner in which lenders are servicing the farmers' credit needs. For what purposes are farmers using credit? How far are individual borrowers in debt? What security is required for loans? What is the length of maturity given? Do delinquencies loom large in the volume of outstandings? Are young farmers obtaining credit? How much must farmers pay for the use of credit?

To answer these, and other pertinent questions, a comprehensive nationwide survey was conducted by the Federal Reserve System as of June 30, 1956. Basic information, much of which has never before been available, has been developed by the survey; it encompasses characteristics both of the borrowers and of their loans, whereas the last such survey, conducted in 1947, related mainly to the nature of loans.

The following charts, tables and text summarize some of the findings as they relate to banks and to farmers borrowing from banks

in the Fourth Federal Reserve District. (1) Well over nine of every ten banks hold agricultural loans in their portfolios. About two of every five farmers have one or more loans at a bank. The total volume of such outstandings in banks of the District amounts to over \$282 million. Price-support loans secured by the Commodity Credit Corporation were excluded from the survey.

Use and Security of Farm Loans

With the advent of mechanization and other factors associated with "big business" in agriculture, a concurrent growth has occurred in the use of credit to finance these higher priced items. Capital goods, other than farm land, accounted for nearly onethird of the credit in use by farmers in mid-1956. Over one-third of the number of loans was for such intermediate investment purposes. (See cover chart and Table 1.) Machinery, trucks, irrigation equipment and goods of this sort accounted for half the credit in use for intermediate investment goods. Lesser amounts were in use for improving land and buildings and for financing breeder livestock and consumer durable goods.

Loans to buy real estate, although fewer in number than loans to buy intermediateterm investment goods, were responsible for an even greater proportion of the dollar volume of outstandings to farm borrowers. An indicated 38 percent of outstanding farm debt was originally incurred to buy farm

⁽¹⁾ Estimates derived for all commercial banks in the Fourth Federal Reserve District were based on a probability sample of loans at a substantial number of insured commercial banks which held more than 20 percent of all farm loans outstanding.

Table 1

DISTRIBUTION OF FARM LOANS BY PURPOSE
(Fourth District, as of June 30, 1956)

| Purpose | Dollar Amount Outstanding | Number of Note Outstanding | |
|---------------------------------------|------------------------------|-------------------------------|--|
| Feeder livestock | 4.2% | 3.8% | |
| Current operating and family living. | 10.3 | 29.5 | |
| All current expenses | 14.5 | 33.3 | |
| Other livestock | 5.6 | 5.2 | |
| Machinery, trucks, etc | 13.6 | 19.8 | |
| Automobiles, other consumer durables. | 3.6 | 7.4 | |
| Improvement of land and buildings. | 8.7 | 6.7 | |
| All intermediate investment | 31.5 | 39.1 | |
| Purchase of farm real estate | 38.3 | 15.1 | |
| Payment or consolidation of debts | 8.1 | 5.9 | |
| Other | 7.6 | 6.6 | |
| All purposes | 100.0% | 100.0% | |

real estate. It is an interesting point that about one-tenth of the loans for purchases of farms were not secured by real estate.

In terms of sheer numbers of loans, farmers had more bank loans for current operating and family-living expenses than for any other purpose at mid-year. Such loans, accounting for 30 percent of all notes, included loans for feed, seed, fertilizer, gasoline, and for some household consumption goods or other items that would normally be used up over the course of a year. Due to the relatively small size of loans for these purposes, however, such loans accounted for only 10 percent of the outstanding dollar amount of farm credit in use.

Loans for consolidating or paying other debts were also of significant proportion in the loan total outstanding—about 8 percent. Although there is no specific indication of the extent to which loans of this type are associated with financial difficulties, it is a reasonable presumption that pressure from "too many" creditors or too many loan payments was the pertinent factor. About two-thirds of

the volume of "debt-adjustment" loans was secured by farm real estate.

Looking at loans according to purpose usually brings to mind the pledging of a security closely associated with the purpose. Loans secured by real estate, for example, are frequently considered as an indication of the volume of lending for the purpose of buying real estate. Analysis of loans according to both purpose and security, however, reveals the fact that such associations are not close. In respect to the security of loans, slightly over half the farm loan volume in the Fourth District (see chart) is secured by real estate — a decidedly larger proportion than the volume used for the purpose of buying farms. On the other side, one-tenth of the loans to buy land are not real-estate-secured, as previously noted.

The significant fact is that nearly a third of the real-estate-secured loans are for purposes other than buying farm real estate. Have lenders required this additional security, for loans which are non-real-estate in purpose, primarily from farmers with small

equity in their operation? Apparently this is not the case, since most of such loans were outstanding to farmers with a net worth in excess of \$10,000. The purpose of loans of this type seems to retain a connection with the security, although it is an indirect association. Thus, two-thirds of the volume of loans secured by real estate, but not used for buying farms, was evenly divided between loans for improving land-and-buildings and loans for consolidating or paying other debts. A substantial volume for these two purposes was evident in all net worth classes from \$3,000 to \$100,000.

Unsecured loans are an important part of the total picture. About 40 percent of the number of farm loans in the District, accounting for 25 percent of the dollar volume, were unsecured. Most of these unsecured loans were for the purchase of chattel goods such as machinery and livestock and for current expenses. Of total loans, only about one loan in five, however, was secured by a chattel mortgage.

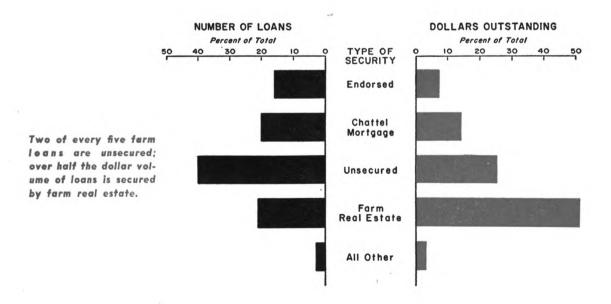
Credit for Individual Borrowers

Bank lending to farmers is characterized by a large number of small loans. Two of every five farmers in the District had one or more bank loans, as previously stated. But over three-fourths of the notes outstanding were smaller than \$2,000; about 60 percent of the notes were less than \$1,000. A farm note larger than \$25,000 is rare.

Any analysis of the debt position of farmers which runs in terms of aggregates leaves an important question unanswered — how great is the debt burden of individual borrowers? Part of the answer to this question can be obtained by looking not only at the size of the notes but also at the size of bank debt for each borrower. Factors left unanswered by these observations, however, are the incomes of individual borrowers and the extent to which they may be indebted to merchants and to other lenders outside of banks. Such information was not made available by the survey.

SECURITY OF FARM LOANS

(Fourth District, as of June 30, 1956)



Allowance for the fact that many farm borrowers have more than one note suggests the need for a special statistical distribution, that is, according to size of *total* bank debt of borrowers. Thus, the proportion of farm borrowers with bank debt over \$1,000 is somewhat greater than the proportion of all notes represented by notes over \$1,000 in size. Nonetheless, an almost even half of the farm borrowers had a total bank debt of less than \$1,000, and well over two-thirds had less than \$2,000. Less than half of one percent of the borrowers were in debt to the bank for \$25,000 or more. (See Table 2.)

If farmers with loans for the purchase of farm real estate are disregarded, the remaining farm borrowers, as might be expected, show an even greater concentration of borrowers with small debts. Among borrowers with no loans for real estate, over 78 percent had less than \$2,000 of bank credit in use.

While it is not a specific answer to the question of how large a number of farmers find their debt burdens excessive, the data just cited indicate that, so far as bank debt is concerned: (1) The proportion of farm borrowers whose debt is excessively burdensome is relatively small, or (2) the "burden" is represented by a relatively small-sized loan.

Loan Maturities

Among the widely held tenets of what constitutes successful farm lending is the belief that repayment schedules should bear a clear relationship to the useful life of the goods purchased. How closely do actual bank loans conform with this doctrine? For some types of loans the answer is that the loans conform quite closely; in other instances, the relationship is considerably less clear.

Items considered as current expenses, such as seed, feed and fertilizer, are generally used up over the course of a year. In conformance with the short period, virtually all loans for current expenses, as disclosed by the survey, were advanced for less than one year or on a demand basis; in fact, 85 percent of such loans were for six months or less. A requirement of real estate as security was found to be an insignificant factor in current-expense loans.

Intermediate-term investment goods, on the other hand, such as tractors, trucks and building renovation, have an income-producing life extending beyond one year. In respect to the length of maturity offered on loans for these purposes, the survey shows that nearly three-fourths of the loans were originally written for terms of 15 months or more, under circumstances where real estate

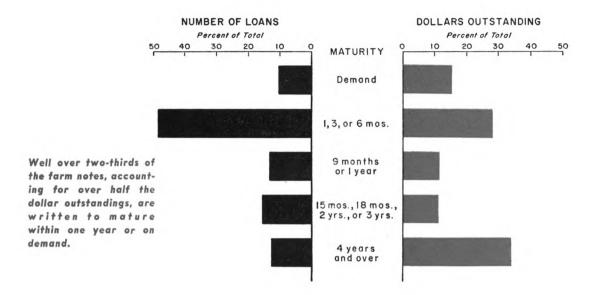
Table 2
FARM BORROWERS BY SIZE OF DEBT
(Fourth District, as of June 30, 1956)

| | Amount C | Outstanding | Number of | f Borrowers | |
|--------------------------------------|--------------|-------------|--------------|-------------|--|
| Outstanding Bank Debt of Borrower | Distribution | Cumulative | Distribution | Cumulative | |
| Under \$250 | 1.1% | 1.1% | 18.2% | 18.2% | |
| \$250-499 | 2.4 | 3.5 | 14.9 | 33.1 | |
| \$500-999 | 5.1 | 8.6 | 16.6 | 49.7 | |
| \$1,000-1,999 | 12.2 | 20.8 | 19.1 | 68.8 | |
| \$2,000-4,999 | 28.3 | 49.1 | 19.7 | 88.5 | |
| \$5,000-9,999 | 26.1 | 75.2 | 8.4 | 96.9 | |
| \$10,000-24,999 | 17.1 | 92.3 | 2.8 | 99.7 | |
| \$25,000-99,999 | 6.1 | 98.4 | 0.3 | 100.0 | |
| \$100,000 and over | 1.6 | 100.0 | 1 | 1 | |
| Total | 100.0 | _ | 100.0 | _ | |

¹Less than 0.02%

MATURITY OF FARM LOANS

(Fourth District, as of June 30, 1956)



was taken for security. However, of the much larger number of such loans where real estate was not taken as security, slightly less than one-third were written for 15 months or more. Taken together, regardless of security, an average of a little more than one loan in three was written for 15 months or more when the proceeds were used for intermediate term investment goods.

Banks, while they are perhaps not in as good a position as some other lenders to extend long-term loans, are a major source of credit for farm real estate in the Fourth District. Maturities on loans to purchase farm real estate are likely to be 6 to 10 years in length; nearly one-third of the loans made to buy real estate were originally written on this basis, according to the survey findings. An even half of the loans to buy real estate carried maturities between 4 and 15 years. Demand notes and 2- to 3-year notes accounted for an additional one-fourth of the real estate loans. Most of the remainder were written

up for less than one year, probably indicating special situations where borrowers needed short periods of time either to convert less liquid assets to cash or perhaps to refinance the loan with another lender.

Of all farm loans, regardless of purpose and security, the survey shows that well over half were written to mature within six months or on call. Well over two-thirds of the loans, representing over half the volume of outstandings, were originally written to mature within one year or on call. (See chart.) Such predominance of short-term loans is far greater than would be suggested by the relative number of loans used for goods that are dissipated over the course of a year. Stated otherwise, when maturities are considered against the background of purposes, the liquidity of loans as originally written to farmers is apparently far greater than would be indicated by the income-producing life of the assets acquired on credit.

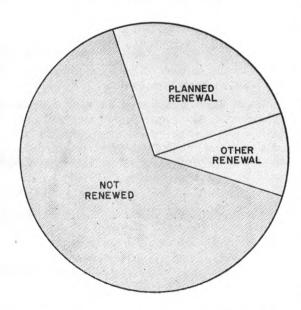
Renewals and Condition of Loans

Renewals play an important part in stretching out repayment periods on farm loans. Many lenders do not wish to write a loan for an extended period, but will accomplish somewhat the same objective by renewing the loan once or even several times. Onefourth of all notes outstanding in mid-1956 had been renewed because of such an understanding when the note was originally made. (See chart.) Most of such planned renewals had been granted during the first half of 1956.(2) This type of arrangement means that lenders and borrowers have had an opportunity to sit down together and talk over the progress of the loans before extending them for another six months or a year.

(2) The average original size of note (or size at last renewal) for intermediate-term investment purposes during the first half of 1956 was 55 percent larger for planned renewal loans than for loans where a renewal was not planned.

NUMBER OF FARM NOTES

(Fourth District, as of June 30, 1956)



One-third of all outstanding notes are renewed; most of these were planned to be renewed when the loan was originally made.

Nearly two-thirds of the loans outstanding on June 30, 1956 had, in fact, been made or last renewed in the preceding six months. Since January 1, personal attention had been given in this way to 90 percent of the notes for current expenses, to 60 percent of the loans for intermediate-term investment goods, to 55 percent of the "debt adjustment" notes, and to 24 percent of the notes for real estate.

It is obvious, in the Fourth District at least, that renewals constitute primarily a method of handling certain credit needs rather than an indicator of credit distress. To be sure, all renewals are not planned. Over a fourth of the renewals, representing about one of every ten loans outstanding, had been renewed on an unplanned basis. Repayment difficulties presumably account for a major portion of such renewals. There is, however, no basis for comparison to indicate whether this level may be high, low, or merely normal.

Delinquencies appear to be a more reliable indicator of credit distress than are renewals. On June 30, less than 3 of every 100 loans were delinquent. (See Table 3.) The entire unpaid principal on these overdue loans amounted to 5.1 percent of the dollar volume of outstandings. Loans overdue more than 33 days accounted for 1.7 percent of the loans, with an unpaid principal equal to 3.7 percent of dollar outstandings. Most delinquencies of three months or more were on loans acquired for buying real estate and for purposes other than current expenses or intermediate-term investment goods. The category of "other loans" (Table 3) would include loans to consolidate or repay other debts.

Relation of Credit to Characteristics of the Borrower

Factors other than use and security have a bearing on the distribution of farm loans. Tenure, age, and net worth of the borrower are also to be considered. A distribution of farm borrowers according to age reveals the same general pattern as a distribution of all

Table 3

FARM LOANS OVERDUE RELATED TO LOANS OUTSTANDING

(Fourth District, as of June 30, 1956)

| | Length of Time Overdue | | | | | | |
|-----------------------------------|------------------------|---------------|--------------|----------------------|--|--|--|
| Purpose | 93 days or more | 33-92 Days | 4-33 Days | All Delinquencies | | | |
| All Loans | | | | | | | |
| Amount as % of outstandings. | 3.2 | 0.5 | 1.4 | 5.1 | | | |
| Number per 100 outstanding. | 1.4 | 0.3 | 1.1 | 2.8 | | | |
| Loans for Real Estate | | | | | | | |
| Amount as % of outstandings. | 3.4 | 0.9 | 1.0 | 5.3 | | | |
| Number per 100 outstanding. | 4.3 | 0.7 | 1.4 | 6.4 | | | |
| Loans for Intermediate Investment | | | | | | | |
| Amount as % of outstandings. | 0.9 | 0.3 | 1.2 | 2.4 | | | |
| Number per 100 outstanding. | 0.9 | 0.4 | 1.3 | 2.6 | | | |
| Loans for Current Expenses | | | | | | | |
| Amount as % of outstandings. | 0.4 | 0.3 | 0.7 | 1.4 | | | |
| Number per 100 outstanding. | 0.4 | 0.2 | 0.8 | 1.4 | | | |
| Other Loans | | | | | | | |
| Amount as % of outstandings. | 10.2 | 0.2 | 3.8 | 14.2 | | | |
| Number per 100 outstanding. | 2.3 | 0.2 | 1.5 | 4.0 | | | |

farm proprietors according to age. (See chart.) About 2 percent of the farm proprietors in the District, for example, are under 25 years of age. A little more than 2 percent of the farm borrowers are in this age class. The 25-34-year age bracket accounts for nearly 13 percent of all farm proprietors and about 16 percent of the borrowers. Not until the age bracket of 45 years and older is reached, is there a substantial departure from this close relationship between the distribution of operators and the distribution of borrowers according to age.

In terms of dollar volume of loans outstanding, there appears to be a progressively larger average size of loan with the advance in the borrower's age; that is probably a reflection of a concurrent increase in net worth.

The relation between size of debt and net worth according to age of the borrower is illustrated in Table 4. A larger average Up to 45 years of age, the proportion of borrowers in each age group is larger than the proportion of all farm proprietors in comparable age brackets.

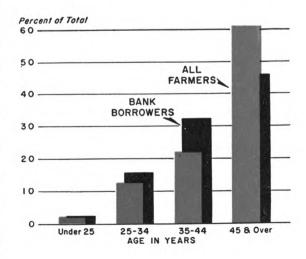


Table 4

AVERAGE FARM DEBT BY AGE AND NET WORTH OF OPERATOR

(Fourth District, as of June 30, 1956)

| Net Worth | Average Size of Borrower's Indebtedness | | | | | | | |
|--------------------|-----------------------------------------|---------|---------|-----------|----------|--|--|--|
| Net worth | Under 25 | 25-34 | 35-44 | 45 & over | All Ages | | | |
| Under \$3,000 | \$ 485 | \$ 363 | \$ 462 | \$ 329 | \$ 398 | | | |
| \$3,000-9,999 | | 1,377 | 1,052 | 939 | 1,176 | | | |
| \$10,000-24,999 | 2,205 | 2,500 | 2,454 | 2,124 | 2,297 | | | |
| \$25,000-99,999 | (1) | 4,697 | 4,961 | 3,837 | 4,144 | | | |
| \$100,000 and over | _ | (1) | 10,976 | 14,882 | 13,471 | | | |
| All Net Worths | \$1,209 | \$1,717 | \$2,180 | \$2,437 | \$2,183 | | | |

⁽¹⁾Too few borrowers in sample for reliable estimate.

Table 5

AVERAGE FARM DEBT BY TENURE AND NET WORTH

(Fourth District, as of June 30, 1956)

| Net Worth | Average Debt of Borrowers with Current Expense and Intermediate Investment Notes Only | | | | | | |
|--------------------|---------------------------------------------------------------------------------------|---------|----------|--|--|--|--|
| Net Worth | Owner-Operator | Tenant | Landlord | | | | |
| Under \$3,000 | \$ 341 | \$ 374 | \$ 189 | | | | |
| \$3,000-9,999 | | 1,144 | 915 | | | | |
| \$10,000-24,999 | | 1,814 | 1,540 | | | | |
| \$25,000-99,999 | 3,443 | 1,709 | 2,907 | | | | |
| \$100,000 and over | | 1,501 | 13,857 | | | | |
| All Net Worths | \$1,862 | \$1,068 | \$3,078 | | | | |

size of debt is associated with a higher net worth in each of the age groups. Table 5 shows a similar association between debt and net worth, by tenure of the operator, up to a \$25,000 net worth. Relatively few tenants in the sample had a net worth of over \$25,000, but the average size of tenants' debt was indicated to be lower than that of owner-operators where net worth was over \$25,000.

Interest Rates

Farmers are currently paying an interest rate of slightly over 5 percent on outstanding notes secured by real estate and slightly over 6 percent on notes not secured by real estate. These charges reflect the effective rate per year, allowing for discounts and for the fairly common practice of charging interest on the original amount of the loan rather than the unpaid balance.

Whether or not the loan is secured by real estate, interest rates are lower as the size of loan becomes larger. On real-estate-secured loans, rates range from 6.4 percent for loans in the \$250-\$500 size down to 4.9 percent for loans in the \$10,000-\$25,000 size. Interest on loans not secured by real estate ranges from 7 percent in the \$250-\$500 size down to 4.7 percent in the \$25,000-\$100,000 loan size.

A further analysis of interest rates on farm loans, as disclosed by the survey, will be undertaken in a forthcoming article.

NOTES

Among the articles recently published in *Monthly Business Reviews* of other Federal Reserve banks, the following may be of special interest to our readers:

- "The Squeeze on Corporate Liquidity," Federal Reserve Bank of Chicago, November 1956.
- "Federal Investment Funds in the Money Market," Federal Reserve Bank of Kansas City, November 1956.
- "A Year of Monetary Restraint Abroad," Federal Reserve Bank of New York, November 1956.
- "Bank Debits and Economic Activity," Federal Reserve Bank of St. Louis, November 1956.

Special publication:

"Maintaining Economic Growth and Stability," a study by the Board of Directors of the Federal Reserve Bank of Boston; 39 pages, 1956.

Copies may be obtained by writing to the Federal Reserve bank named in each case.

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