4

Characteristics of Farm Equipment Credits

This chapter deals with the characteristics of retail farm equipment credits in 1947: the face amount of loans made to purchasers of equipment, down payment provisions, term or maturity of loans, repayment provisions, and interest and finance charges. An analogous description of the characteristics of the loans obtained by dealers to finance their inventories of farm equipment—so-called wholesale financing—would be useful also, but cannot be made on the basis of the data currently available.[1]

There are, besides the BAE survey with which the reader is familiar, three main sources of information. One is a questionnaire survey, conducted by the National Bureau of Economic Research, of the equipment loans made in 1947 by PCAs. Replies were received from 255 of the 503 associations throughout the country, whose combined loan volumes represented 55 percent of the national total; Appendix B gives the questionnaire schedule, the regional distribution of the responding PCAs, and other details of the survey. Another is a similar survey of credit extensions made in 1947 by retail farm equipment dealers. Coverage in this survey was very small, replies being received from 333 concerns, or only 2 percent of all dealers. It is believed, however, that the sample is representative for the purpose it serves here; Appendix A gives the details. Types of equipment covered in the foregoing materials are those mentioned in footnote 2 of Chapter 1, the only difference being that the NBER survey of dealers excluded repair parts and small attachments, whereas the NBER survey of PCAs did not, and the BAE survey, while not specifically excluding them,

[1] Some information on inventory financing by manufacturers is available and will be included in Chapter 5.

received few reports on such purchases. Our fourth source of information, unfortunately, lacks comparability with the others in several important points.

A nationwide sample survey of the agricultural loans of insured commercial banks, conducted in 1947 by the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation, is the only available means of drawing upon bank records for the purposes of this study.[2] The survey was not specifically designed to provide information on equipment loans, and the group that can be identified as such includes loans made for the purchase of automobiles and trucks (which were excluded from the other surveys), at the same time failing to include some of the loans that would fall within our definition. The bank survey data given in Table 14 indicate that 731,500 short-term loans made to finance purchases of livestock and farm equipment were outstanding in insured commercial banks in the United States in mid-1947, the aggregate balance amount being $740 million. Approximately 19 percent of the loans (accounting for 14 percent of the amount outstanding) were secured by equipment, including trucks and automobiles. On the assumption that most of these loans were made originally for the purpose of financing farm equipment purchases, this is the group selected for study here as bank farm equipment credits. All unsecured and endorsed loans, and loans secured by anything other than or in addition to equipment are excluded, since it is not possible to distinguish in these groups between loans made to finance acquisitions of equipment and those made to aid in the purchase of livestock.

The bank survey refers only to outstanding balances, thus affording no opportunity to analyze the original amounts of loans. The

2 A representative sample of about 1,200 commercial banks—approximately 700 member banks and 500 insured nonmember banks—cooperated voluntarily with the Board of Governors and the FDIC in supplying information on their farm mortgage and farm production loans. For the survey of farm production loans, each bank was asked to report on one out of every five of its loans of that type, selected in a random manner, and over-all estimates were constructed from the sample data. In the classification of loans by purpose, purchases of machinery and of livestock were reported together in one category. Such loans formed the second largest class; the largest was loans "for production payments and living expenses," other purposes having minor importance. (Cf. "Commercial Bank Loans to Farmers," by Tynan Smith and Philip T. Allen, *Federal Reserve Bulletin*, October 1947, pp. 1216–27.)

The information on bank loans utilized in this chapter was taken from IBM punch cards which the Board of Governors kindly made available for our use.

TABLE 14

FARM MACHINERY AND LIVESTOCK LOANS OUTSTANDING IN COMMERCIAL BANKS, JUNE 1947, BY TYPE OF SECURITY

TYPE OF SECURITY	LOANS OUTSTANDING			PERCENTAGE DISTRIBUTION	
	Number	*Balance Amount (in thousands)*	*Balance Amount per Loan*	*Number*	*Amount*
Unsecured	159,400	$146,325	$ 918	21.8%	19.8%
Endorsed	71,600	40,257	562	9.8	5.4
VA guarantee	10,500	14,250	1,357	1.4	1.9
Livestock	200,800	275,303	1,371	27.5	37.2
Crops in storage	1,000	1,035	1,035	0.1	0.1
Growing crops	2,500	2,076	830	0.3	0.3
Machinery	135,900	100,448	739	18.6	13.6
Comb. crops, livestock, machinery	122,100	138,589	1,135	16.7	18.8
Other security	22,100	16,458	745	3.0	2.2
Not listed	5,600	5,304	947	0.8	0.7
Total	731,500	$740,045	$1,012	100.0%	100.0%

Estimates based on the mid-1947 survey of farm loans of commercial banks made by the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation (see text footnote 2).

other surveys report separately the credits utilized for new- and for used-equipment purchasing, but these cannot be distinguished in the bank data for separate study of their characteristics.

Size of Credits

The price of a piece of farm equipment may be anything from less than $100 for an electric motor or a cream separator to more than $5,000 for a self-propelled combine or a cotton picker. The cost of a machine for a given purpose (a tractor, for example) may be three or four times as great for the largest as for the smallest model. Obviously, therefore, the face amounts of loans made to finance equipment purchases must vary considerably.

Direct data on the original amounts of equipment credits are not available, but the Federal Reserve–FDIC survey of commercial banks is indirectly helpful. Of the number of equipment loans outstanding at the survey date, 42 percent showed amounts of less than $500 due, and nearly 75 percent showed balances under $1,000 (Table 15). In the total amount outstanding, of course, the

TABLE 15

SIZE OF FARM EQUIPMENT LOAN BALANCES OUTSTANDING IN COMMERCIAL BANKS, JUNE 1947
(percentage distribution of number and amount)

Census Region [a]	*Under $250*	*$250–$499*	*$500–$999*	*$1,000–$1,499*	*$1,500–$2,499*	*$2,500 and over*	*Total*
			Number of Loans				
New England	24%	24%	19%	18%	9%	6%	100%
Middle Atlantic	23	20	28	17	8	4	100
East North Central	26	19	33	12	7	3	100
West North Central	27	20	28	13	8	4	100
South Atlantic	12	27	26	27	8	b	100
East South Central	17	22	31	20	7	3	100
West South Central	15	21	32	18	12	2	100
Mountain	12	9	36	24	9	10	100
Pacific	22	22	22	18	9	7	100
United States	22	20	30	16	9	3	100
			Amount Outstanding				
New England	3%	9%	16%	29%	17%	26%	100%
Middle Atlantic	4	9	25	25	18	19	100
East North Central	5	10	32	19	19	15	100
West North Central	5	8	23	18	16	30	100
South Atlantic	2	12	27	36	22	1	100
East South Central	3	10	28	31	16	12	100
West South Central	3	9	27	27	28	6	100
Mountain	1	3	19	25	13	39	100
Pacific	4	9	17	22	17	31	100
United States	4	9	25	22	19	21	100

Based on the mid-1947 survey of farm loans of commercial banks made by the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation (see text footnote 2). Equipment loans include only those among loans made for the purpose of financing purchases of livestock or machinery that were secured entirely by machinery (including trucks and automobiles).

[a] For a listing of states included in each census region, see Table 1, footnote a.
[b] Less than 0.5 percent.

smaller balances counted for less. Balances of less than $500 constituted only 13 percent, while balances of $1,500 and over made up 40 percent, of the whole amount outstanding. No marked regional variations can be detected in the distribution of loan balances according to size, but the banks in the East and West North Central regions seem to have held a somewhat higher than average proportion of balances in the less than $1,000 class, and especially of balances less than $250, while banks in the three southern regions and in the Mountain states held a larger than average proportion of balances in the $500 to $1,500 range.

The BAE survey indicates that in financing their smaller purchases (that is, those involving less than $50), farmers received credit mainly from dealers, who extended 64 percent of the total amount of credit used in such purchases, and who also financed a greater proportion of the less-than-$250 purchases than did any other single source. While banks supplied less than a fifth of the credit used for purchases involving less than $100, for purchases in the $500 to $2,500 classes they supplied more than half of the total credit used. The share supplied by PCAs varied but little as between the larger and smaller purchase classes.[8] All in all, considering the range of prices of the most commonly used equipment, and the BAE reporting of the proportion of credit used to total sales prices in various ranges (Table 11), it is probable that in most cases the face amounts of equipment credits used by farmers did not exceed $1,500.

Down Payment Provisions

When funds to finance the purchase of farm equipment are advanced as part of a larger loan intended to suffice for a wider range of farm operating needs, down payment requirements may not figure in the transaction, for usually the entire farm operating capital will have been taken into account in granting the loan. Where the purchase of equipment is the sole purpose of the loan, however, it is customary for the purchaser to pay part of the purchase price from his own resources; that is, to establish an equity in the machine through a down payment. The amount of the

[8] Richard G. Schmitt, Jr., *Financing Farm Machinery and Equipment Purchases, 1947* (Bureau of Agricultural Economics, mimeo., August 1949), Table 4, p. 8.

required down payment, where there is one, depends mainly on the kind of equipment being purchased, the terms and other conditions of the purchase, including the security that the borrower can offer, and his creditworthiness. The lender also takes into account the resale value of the equipment, the cost of repossessing, reconditioning, and reselling it in the event of default, its obsolescence, and the dealer's markup and any costs of installation that may have been involved in the original sale.

According to the BAE data shown in Table 16, about half of

TABLE 16

DOWN PAYMENTS ON FARM EQUIPMENT, 1947, BY SIZE OF PURCHASE
(percentage distribution of number of credit purchases)

SIZE OF PURCHASE	DOWN PAYMENT AS PERCENT OF PURCHASE PRICE					
	0%	*1–24%*	*25–49%*	*50–74%*	*75–99%*	*Total*
			New Equipment			
Under $50	87%	13%	...	...	...	100%
$ 50–$ 99	82	7	4%	7%	...	100
100– 249	70	5	16	8	1%	100
250– 499	59	8	15	17	1	100
500– 749	52	17	17	14	...	100
750– 999	37	9	24	28	2	100
1,000– 1,499	48	9	24	17	2	100
1,500– 2,499 [a]	38	6	33	21	2	100
$2,500 and over [a]	53	6	21	18	2	100
			Used Equipment			
Under $50	81%	...	16%	3%	...	100%
$ 50–$ 99	78	2%	...	16	4%	100
100– 249	88	3	6	2	1	100
250– 499	68	8	7	14	3	100
500– 749	68	7	18	7	...	100
750– 999	67	13	9	11	...	100
1,000– 1,499	64	14	10	11	1	100
1,500– 2,499 [a]	37	18	19	26	...	100
$2,500 and over [a]	78	...	7	15	...	100

From *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (Bureau of Agricultural Economics, mimeo., August 1949), Table 2, p. 6. "Down payment" refers to that part of the cost of a credit purchase of equipment that was met with cash or with trade-in, as reported by the purchaser.

[a] Based on less than 100 cases.

the credit purchases of new equipment, and more than half of all credit purchases of used equipment, involved no down payment, a situation that contrasts sharply with durable goods financing for consumers. Further, the percentage of credit purchases without down payment—that is, without use of cash or trade-in—was greater for purchases of small than of large amount. It will be observed, however, that a fair proportion of the credit purchases of equipment costing $250 or more involved a down payment, generally ranging between 25 and 75 percent of the original purchase price.

Loans without down payment were more frequent among the equipment credits supplied by PCAs and the Farmers Home Administration than among those extended by other agencies (Table 17), a difference which probably reflects a greater tendency of these institutions to make general production loans rather than straight equipment credits.

Contract Length

There are no general rules regarding the maximum period over which a credit purchaser of farm equipment is permitted to make repayment, but credit officers frequently use one-quarter of the estimated productive life of the equipment as a basis for establishing an appropriate repayment period. Consideration is given also to the expected rate of obsolescence and depreciation, and to the credit standing of the purchaser. When equipment credits are made as part of a larger credit for general production purposes, which is often the case with bank, PCA, and FHA loans, other considerations than those relating to the equipment itself bear importantly on the length of the repayment period.

On the basis of information obtained from manufacturers, dealers, and financing agencies, it appears that contract lengths in 1947, with few exceptions, ranged from three months to two years. The maximum length of contract extended by manufacturers was usually eighteen or twenty-four months, although thirty-six months was permitted for expensive and specially built equipment; lending institutions allowed maximum repayment periods ranging from twelve to twenty-four months. The survey of commercial banks' agricultural loans outstanding in mid-1947 showed that about 80 percent of the number and amount of the loans identifiable as equipment credits had been made originally with

TABLE 17

DOWN PAYMENTS ON FARM EQUIPMENT, 1947, BY SOURCE OF CREDIT
(percentage distribution of number of credit purchases)

SOURCE OF CREDIT	DOWN PAYMENT AS PERCENT OF PURCHASE PRICE					
	0%	*1–24%*	*25–49%*	*50–74%*	*75–99%*	*Total*
			New Equipment			
Commercial banks	56%	6%	22%	15%	1%	100%
Production Credit Associations	89	3	6	2	...	100
Farmers Home Administration	91	4	5	...	...	100
Finance companies	38	7	41	3	11	100
Retail dealers	44	11	24	20	1	100
Manufacturers	44	...	22	34	...	100
Individuals	55	9	23	8	5	100
Other [a]	56	17	12	15	...	100
			Used Equipment			
Commercial banks	68%	9%	11%	10%	2%	100%
Production Credit Associations	92	8	...	...	...	100
Farmers Home Administration	92	8	...	...	...	100
Finance companies	35	22	38	5	...	100
Retail dealers	36	9	32	23	...	100
Manufacturers	...	...	...	...	...	...
Individuals	80	2	9	8	1	100
Other [a]	82	18	...	...	...	100

From *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (Bureau of Agricultural Economics, mimeo., August 1949), Table 9, p. 13. "Down payment" refers to that part of the cost of a credit purchase of equipment that was met with cash or with trade-in, as reported by the purchaser.

[a] Includes combinations of sources.

terms of one year or less (Table 18). Few of these were made on a demand basis; the relative frequency of demand loans was negligible in all but the New England and Middle Atlantic regions, though in amount such loans were also of some importance in the West North Central states. Loans on a more liberal repayment basis were made with greatest relative frequency in the Pacific states.

Table 18

Contract Term of Farm Equipment Loans Outstanding in Commercial Banks, June 1947

(percentage distribution of number and balance amount)

Census Region [a]	*Demand*	*6 Mo. or Less*	*6 Mo. to 1 Year*	*Over 1 Year*	*Unclassified*	*Total*
			Number of Loans			
New England	14%	28%	30%	25%	3%	100%
Middle Atlantic	12	53	12	22	1	100
East North Central	2	42	40	14	2	100
West North Central	3	42	35	19	1	100
South Atlantic	1	28	36	23	12	100
East South Central	3	52	36	8	1	100
West South Central	4	38	46	11	1	100
Mountain	[b]	24	44	28	4	100
Pacific	...	13	37	48	2	100
United States	3	40	37	18	2	100
			Amount Outstanding			
New England	23%	30%	25%	21%	1%	100%
Middle Atlantic	13	56	10	18	3	100
East North Central	2	40	42	15	1	100
West North Central	19	32	26	22	1	100
South Atlantic	1	20	45	21	13	100
East South Central	4	52	38	6	[b]	100
West South Central	6	41	43	9	1	100
Mountain	[b]	23	29	45	3	100
Pacific	...	11	41	44	4	100
United States	9	36	33	20	2	100

Based on the mid-1947 survey of farm loans of commercial banks made by the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation (see text footnote 2). Equipment loans include only those among loans made for the purpose of financing purchases of livestock or machinery that were secured entirely by machinery (including trucks and automobiles).

[a] For a listing of states included in each census region, see Table 1, footnote a.
[b] Less than 0.5 percent.

Time taken for repayment may differ from the contract length. In Table 6 it appeared that although manufacturers often provided for longer terms, on the average the turnover rate for farmers' notes was about once a year over the period of 1935–48.

PCA respondents estimated that 64 percent of their new-equipment loans made in 1947, and 70 percent in the case of used equipment, would be repaid within twelve months (Table 19).

TABLE 19

PERCENTAGE OF FARM EQUIPMENT CREDITS EXTENDED BY PRODUCTION CREDIT ASSOCIATIONS EXPECTED TO BE TOTALLY REPAID WITHIN TWELVE MONTHS, 1947

Census Region [a]	*New Equipment*	*Used Equipment*
New England	59	52
Middle Atlantic	14	29
East North Central	66	71
West North Central	83	84
South Atlantic	46	53
East South Central	55	69
West South Central	88	95
Mountain	88	98
Pacific	75	77
United States	64	70

Based on the National Bureau of Economic Research survey of PCAs.

[a] For a listing of states included in each census region, see Table 1, footnote a.

Repayment Provisions

Farm equipment credits are usually extended on a note basis, except that dealers, of course, also carry open book accounts. Notes may provide for repayment either in a single sum or by instalments, and the latter may be regularly or irregularly spaced. According to the BAE survey of farmers' equipment purchases in 1947, nearly 58 percent of the total amount of credit used was obtained through single payment notes. Instalment credits made up something over one-fourth of the total, the remainder being charged on open book account (about 5 percent) or involving combined or unspecified arrangements.[4] Repayment provisions vary regionally and with the credit source, and for indications of such differences we may turn to the bank, PCA, and dealer surveys.

[4] Schmitt, *op. cit.*, Table 8, p. 12.

Of the equipment loan notes held by commercial banks in mid-1947, 62 percent of the number provided for repayment in a single sum at maturity, 28 percent for regular instalment payments, and 10 percent for irregular instalment payments. Of the total amount of the balances outstanding, 64 percent was to be repaid in single payments, 22 percent in regular instalments, and 14 percent in irregular instalments (Table 20).[5] A comparison of the distribution of number and amounts shows the outstanding amounts of regular instalment loans to average smaller than those of single payment and irregular payment loans. The differences, however, are for the most part small, and the data do not support any inferences from them whether as to size of loan at origination or as to subsequent repayment experience.

Regular schedules of instalments for repayment of equipment loans by banks were used relatively more frequently in the New England, Middle Atlantic, and Pacific regions than in others. This is not surprising for the two northeastern regions, where dairying, along with other types of farming which produce a fairly uniform income throughout the year, is so important. But that is less true of the Pacific region, and the predominance of regular instalment provisions is unusual, both with respect to bank practice in general, and also, as will be seen, in comparison with the practice of PCAs in the Pacific states. The high percentage of single payment loans in the two south central regions can perhaps be explained by the prominence there of cotton and livestock farming, in which the schedule of income receipts makes this type of provision suitable. On the other hand, the high proportion of single payment loans in the East North Central states cannot be explained similarly, since farming in most of that area would be best served by credits repayable in instalments at irregular intervals, on a seasonal basis. The practice of making equipment credits repayable at irregular intervals, however, was not widely characteristic of commercial bank lending in any of the regions, and since a provision for regular instalments would not be fitting for the area in ques-

[5] Loans to finance farmers' purchases of automobiles and trucks are included in the bank survey data. The BAE survey, which excluded such loans, reports an even higher proportion of single payment notes, 79 percent of the amount of new-equipment credit supplied by banks being described as of that type. (Schmitt, *loc. cit.*)

TABLE 20

REPAYMENT PROVISIONS OF FARM EQUIPMENT LOANS OUTSTANDING IN COMMERCIAL BANKS, JUNE 1947

(percentage distribution of number and balance amount)

Census Region [a]	*Single Payment*	*Regular Instalments*	*Irregular Instalments*	*Total*
		Number of Loans		
New England	25%	72%	3%	100%
Middle Atlantic	24	62	14	100
East North Central	71	22	7	100
West North Central	59	24	17	100
South Atlantic	50	35	15	100
East South Central	75	20	5	100
West South Central	78	19	3	100
Mountain	66	23	11	100
Pacific	31	52	17	100
United States	62	28	10	100
		Amount Outstanding		
New England	30%	66%	4%	100%
Middle Atlantic	22	60	18	100
East North Central	71	21	8	100
West North Central	65	14	21	100
South Atlantic	56	35	9	100
East South Central	77	15	8	100
West South Central	82	16	2	100
Mountain	51	22	27	100
Pacific	39	41	20	100
United States	64	22	14	100

Based on the mid-1947 survey of farm loans of commercial banks made by the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation (see text footnote 2). Equipment loans include only those among loans made for the purpose of financing purchases of livestock or machinery that were secured entirely by machinery (including trucks and automobiles).

[a] For a listing of states included in each census region, see Table 1, footnote a.

tion, it is probable that the prevalence of single payment loans can be attributed to the general unreadiness of commercial banks to make loans on an irregular payment basis.

As for equipment credits obtained from PCAs, nearly one-half of the total amount for 1947 was repayable in irregular instalments, only 32 percent by a single payment at maturity, and nearly 20 percent by regular instalments, according to PCA reports summarized in Table 21.[6] In every region but one, the Pacific states, irregular instalment loans constituted a substantially larger fraction of PCA loans than of bank loans—a significant difference in

TABLE 21

REPAYMENT PROVISIONS IN FARM EQUIPMENT FINANCING BY PRODUCTION CREDIT ASSOCIATIONS, 1947
(percentage distribution of amount loaned)

Census Region [a]	*Single Payment*	*Regular Instalments*	*Irregular Instalments*	*Unclassified*
New England	16	64	20	...
Middle Atlantic	10	62	28	...
East North Central	12	11	77	b
West North Central	33	6	59	2
South Atlantic	45	26	27	2
East South Central	36	17	46	1
West South Central	62	5	28	5
Mountain	57	6	32	5
Pacific	68	19	13	b
United States	32	20	47	1

Based on the National Bureau of Economic Research survey of PCAs.

[a] For a listing of states included in each census region, see Table 1, footnote a.
[b] Less than 0.5 percent.

practice. It will be observed that among the PCA loans the volume of those calling for regular instalments was highest in the New England and Middle Atlantic regions; irregular instalment loans were highest in the two north central regions; and single payment loans were highest in the South Atlantic, West South Central, Mountain, and Pacific states.

[6] The proportion of single payment provisions in PCA equipment loans reported to the BAE by farmers was higher than that reported by PCAs, totaling 50 percent of the amount of PCA loans in the case of new equipment and 85 percent in the case of used equipment, or (combining these in the proportions suggested by the table on page 41) 58 percent of all PCA equipment loans, by amount (Schmitt, *loc. cit.*). Unclassified arrangements—that is, combinations and arrangements not clearly described—bulk large here in the farmers' reports, totaling 30 percent (by amount) in the case of new-equipment credits. Difficulties of interviewing, therefore, may have affected the BAE findings on repayment provisions.

Finally, the NBER survey of retail dealers throws further light on the repayment provisions characteristic of farm equipment financing. As will be seen in Table 22, almost half of the amount of credit extended by dealers in their sales of new and used equipment was made on an open book account basis, calling presumably for a single payment within a relatively short period. Slightly over 30 percent consisted of straight notes payable in a single sum at

TABLE 22

REPAYMENT PROVISIONS OF FARM EQUIPMENT CREDITS EXTENDED BY REPORTING DEALERS DIRECTLY, 1947
(*percentage distribution of amount of credit sales*)

Repayment Provision	*New Equipment*	*Used Equipment*
Open account	48%	45%
Straight note	31	32
Instalment note	21	23
Total	100%	100%
Dealers reporting	167	71

Based on the National Bureau of Economic Research survey of dealers.

maturity, and approximately 20 percent was repayable in instalments.[7] No significant differences in repayment provisions as between large and small retail concerns appeared.

Financing Charges

The wide diversity of farm equipment financing arrangements makes it difficult to give a concise statement of the level of charges to purchasers for financing farm equipment. For the most part these charges ranged between 5 and 8 percent per annum on the unpaid balance of the note in 1947. With the possible exception of recording fees, charges other than the finance charge are not usually made, and ordinarily no insurance is required.

7 The BAE survey found instalment provisions predominant in the credit sales of retail dealers. Thirty-nine percent of the credit supplied by dealers to purchasers of new equipment was repayable in instalments, according to farmers' reports, while 33 percent was charged on open book account and 22 percent was to be repaid in single payments, the rest (6 percent) involving combined or not clearly specified provisions (Schmitt, *loc. cit.*).

The average interest rate on all farm production loans of insured commercial banks that were outstanding in mid-1947, regardless of specific purpose, was 6.1 percent per annum, and the average rate for all such loans whose purpose was to finance purchases of livestock or equipment was 6.0 percent (Table 23). Interest rates on the farm production loans actually secured by equipment average 6.6 percent per annum. It will be observed in Table 23 that interest rates on these loans, as on farm production loans generally, were highest on the smallest loan balances.

TABLE 23

AVERAGE INTEREST RATES ON FARM PRODUCTION AND FARM EQUIPMENT LOANS OUTSTANDING IN COMMERCIAL BANKS, JUNE 1947

FARM PRODUCTION LOANS	SIZE OF BALANCE					ALL SIZES
	Under $250	*$250–$499*	*$500–$999*	*$1,000–$2,499*	*$2,500 and Over*	
Loans secured by machinery	7.3%	7.2%	6.8%	6.6%	6.0%	6.6%
Loans for purchase of machinery and livestock	7.1	6.8	6.5	6.2	5.5	6.0
All farm production loans	7.7	7.2	6.8	6.3	5.4	6.1
Boston	5.9	5.7	5.6	5.3	4.8	5.2
New York	5.9	5.9	5.8	5.7	5.4	5.6
Philadelphia	6.0	5.8	5.7	5.4	5.0	5.3
Cleveland	6.1	6.0	6.0	5.7	5.2	5.7
Richmond	6.1	6.1	6.2	5.7	5.2	5.7
Atlanta	8.5	7.8	7.3	6.7	5.6	6.9
Chicago	6.5	6.3	6.1	5.6	5.3	5.7
St. Louis	7.3	6.9	6.5	6.1	5.7	6.3
Minneapolis	7.1	6.9	6.7	6.4	5.6	6.2
Kansas City	8.9	8.0	7.3	7.0	4.9	6.1
Dallas	10.9	9.5	8.3	7.6	6.4	7.6
San Francisco	8.2	7.4	7.1	6.4	5.4	5.8

From "The Structure of Interest Rates on Commercial Bank Loans to Farmers," by Richard Youngdahl, *Federal Reserve Bulletin*, December 1947, Tables 7, 8, and 9, pp. 1490–95.

PCA loans, whether to finance purchases of equipment or for other purposes, carried in 1947 a rate of 4.5 percent.[8] The loan service and recording fees, however, plus the 5 percent investment in PCA stock which is required of each borrower, would make the effective interest rate somewhat higher. Loan service fees are usually established on the basis of the size of the loan, 0.5 percent of the face amount of the loan on loans up to $2,000 being commonly used. It has been estimated that the necessity of owning stock equivalent to 5 percent of the loan, which is normally borrowed as part of the loan, raises the net cost of the loan to the average borrower approximately 0.4 percent on a 4.5 percent loan in non-dividend-paying associations.[9] This, in addition to the loan service fees, would raise the effective interest rate on instalment loans to 1.0 percent or more above the quoted rate.

It would be of interest to compare the effective PCA rates with the interest rates on loans made by commercial banks for financing farmers' purchases of equipment, but a precise comparison is not possible on the basis of the available data. The effective rates on PCA loans are not accurately known. Moreover, the rate charged by PCAs is applicable to all borrowers, regardless of credit standing, whereas the bank rates that are in question here apply to secured loans, made, presumably, to borrowers representing a somewhat greater credit risk than those who obtain unsecured loans. On the group of bank loans used for purchases of livestock as well as of equipment, where both secured and unsecured loans are included, the interest rates were somewhat lower than those on equipment-secured loans. On the larger loans of the more inclusive group, the bank rates in 1947 were about the same as the roughly estimated PCA rate. In a comparison based on farm production loans of all types, bank rates on larger outstandings appear to have been competitive with the PCA rate. Regional differences in interest rates on the farm production loans of banks are particularly marked in the case of the smaller balances.

8 The rate after April 1, 1948 ranged from 4.5 to 6 percent. By January 1953 the rate varied between 5 and 6.75 percent throughout the country. Cf. *Agricultural Finance Review* (U.S. Department of Agriculture), Vol. 16, November 1953, Table 15, p. 102.

9 Earl L. Butz, *The Production Credit System for Farmers* (Brookings Institution, 1944), pp. 52-57.