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The Present Market for Farm Equipment Credit and Its Distribution among Credit Agencies

In this chapter and the next, the purpose is to take a cross-section view of agricultural equipment financing in a single recent year. Our chief source of information concerning the demand for such financing and the relative importance of the various agencies of credit supply is an enumerative survey of farmers' equipment purchases in 1947, made by the Bureau of Agricultural Economics. This survey, conducted by interview in late April and early May of 1948, reached approximately 12,000 farms in 872 counties selected for national coverage.[1] In the report, no dollar amounts appear; information is given in percentage distributions of the number or the dollar total of purchases, new and used equipment being treated separately. It will be possible, nevertheless, through a separate estimate of the dollar total of farmers' equipment purchases, to supply rough dollar estimates of the financing involved, where these, as well as the percentage distributions, would be of interest.

Farmers' Use of Credit in Purchasing Equipment

Purchases of farm equipment paid for entirely by cash and trade-in made up 74 percent of all such transactions, by dollar volume, the BAE found (Table 10). Of the remaining 26 percent, 12 percent

[1] See *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (U.S. Department of Agriculture, Bureau of Agricultural Economics, mimeo., August 1949). The survey covered field and farmstead equipment as defined in footnote 2 of Chapter 1. The transactions reported were thought, when expanded, to account for about 80 percent of the more expensive items, and not more than 50 percent of the smaller items, of equipment purchased by farmers throughout the United States.

represented all-credit purchases. For used equipment the percentage of all-credit purchasing was higher, and the percentage without use of credit was lower, than for new equipment.

TABLE 10

PERCENTAGE OF THE DOLLAR TOTAL OF FARM EQUIPMENT PURCHASES PAID FOR PARTLY OR WHOLLY IN CASH, 1947

Means of Payment	*New Equipment*	*Used Equipment*
All cash or trade-in	74	69
Part credit	14	12
All credit	12	19

From *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (Bureau of Agricultural Economics, mimeo., August 1949), p. 3.

Relatively more credit was used in connection with the larger, more expensive units of equipment than with smaller, cheaper units, as Table 11 shows. Of the dollar total spent for items cost-

TABLE 11

PERCENTAGE OF THE COST OF FARM EQUIPMENT PURCHASES MET WITH CASH AND WITH CREDIT, 1947, BY SIZE OF PURCHASE

SIZE OF PURCHASE	NEW EQUIPMENT		USED EQUIPMENT	
	Cash (or trade-in)	*Credit*	*Cash (or trade-in)*	*Credit*
Under $50	93	7	95	5
$ 50–$ 99	91	9	95	5
100– 249	90	10	85	15
250– 499	89	11	84	16
500– 749	88	12	78	22
750– 999	84	16	67	33
1,000– 1,499	80	20	74	26
1,500– 2,499	75	25	67 [a]	33 [a]
$2,500 and over	72	28	64 [a]	36 [a]

From *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (Bureau of Agricultural Economics, mimeo., August 1949), Table 1, p. 5.

[a] Based on less than one hundred reports.

ing $1,500 and over, the credit portion amounted to 25 percent or more; for items costing less than $100, the credit portion was less than 10 percent. Except in the case of these small items, the amount of credit used per dollar spent was larger for used than for new equipment.

Regional differences in the extent to which farm equipment purchasing involves credit appeared in the BAE survey. As may be seen in Table 12, farmers in the two south central regions used most credit per dollar spent for equipment. For the West South Central states, this figure averaged 33 cents per dollar, and for the East South Central states, 28 cents per dollar. Credit use, by

TABLE 12

RATIO OF CREDIT TO COST IN FARMERS' PURCHASES OF EQUIPMENT, 1947

Region and Tenure	*New Equipment*	*Used Equipment*	*All Equipment*
Census region: [a]			
New England	15%	18%	16%
Middle Atlantic	23	28	24
East North Central	13	17	14
West North Central	17	30	20
South Atlantic	18	22	19
East South Central	30	20	28
West South Central	32	36	33
Mountain	22	27	23
Pacific	20	26	21
Tenure of purchaser:			
Full owner	16	18	16
Part owner	18	27	20
Manager [b]	6	0	6
Tenant [c]	30	35	32
Total	20%	26%	21%

From *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (Bureau of Agricultural Economics, mimeo., August 1949), Table 3, p. 7.

[a] For a listing of states included in each census region, see Table 1, footnote a.
[b] Based on less than one hundred reports.
[c] Excludes sharecroppers, since they do not normally purchase farm machinery and equipment.

this measure, was lowest in the East North Central and New England regions, where it averaged 14 and 16 cents per dollar, respectively. For the United States as a whole, farmers reported credit use in their equipment purchasing amounting to 21 cents per dollar spent.

Differences according to the equipment buyer's tenure also appeared (Table 12). Tenants depended most heavily on credit, meeting, on the average, 32 percent of the dollar volume of their purchases on a credit basis. This figure compares with 16 percent for full owners, 20 percent for part owners, and 6 percent for managers.

Relative Importance of Banks, Dealers, PCAs, and Others in Supplying Credit

As to credit sources, the findings of the BAE given in Table 13 showed commercial banks to be of first importance, having supplied in 1947 nearly half of all credit used for purchase of new farm equipment, and somewhat more than half in the case of used equipment. Dealers and production credit associations supplied the next largest shares, although the combined amount of their credit extensions for purchase of new equipment was well below

TABLE 13

PERCENTAGE DISTRIBUTION OF THE DOLLAR VOLUME OF FARM EQUIPMENT CREDIT, 1947, AMONG SOURCES OF CREDIT

Source of Credit	*New Equipment*	*Used Equipment*
Commercial banks	48	52
Retail dealers	18	2
Production Credit Associations	10	7
Individuals	9	24
Farmers Home Administration	4	6
Finance companies	4	5
Manufacturers	1	0
Other	6	4
Total	100	100

From *Financing Farm Machinery and Equipment Purchases, 1947,* by Richard G. Schmitt, Jr. (Bureau of Agricultural Economics, mimeo., August 1949), p. 3.

the amount of such financing done by banks. The very large share of used-equipment credit supplied by individuals—in all likelihood an abnormally high percentage—probably resulted from the unusually large number of sales of used equipment by one farmer to another in a year when the demand for it was heightened by the shortage of new equipment. Only 9 percent of the average retailer's 1947 sales volume was in used equipment, according to the National Bureau's dealer survey (Table A-1). Under more normal economic conditions, new-equipment sales involve trade-in of used equipment in a high percentage of the transactions; ordinarily, more of the sales of used equipment would be made by dealers, and a greater share of the credit involved would be supplied by dealers and institutional lenders.

The Dollar Volume of Credit and Amounts Supplied by the Several Sources

The basic figure from which an estimate of credit advanced to farmers in connection with their purchases of new farm equipment can be derived is the volume of manufacturers' shipments of such equipment. The Census Bureau reported domestic shipments in 1947 amounting to $1,133 million (Table 4), about one-fourth of which represented repair parts and small attachments, the total for complete new units being $852 million (Table 6). Utilizing adjusted census data [2] and assuming markups of 50 percent on complete units and 60 to 64 percent on small attachments and repair parts, the Bureau of Agricultural Economics has estimated that purchases of new farm equipment at retail totaled about $1,900 million, of which $1,400 million was for complete units. It is the latter figure that can most appropriately be combined with the available information on the financing involved, since farmers' responses to the BAE survey of their equipment purchases included relatively little reporting of repair parts and

[2] The principal adjustments made were that increases to the domestic supply through imports were taken into account; garden tractors for nonfarm use were excluded; and estimated amounts for certain items no longer carried in the census reports (of which the most important was internal combustion engines used on farms) were added. The totals as adjusted by the BAE are put at $929 million for complete new units and $1,227 million inclusive of parts and small attachments.

small attachments. The survey indicated a 20 percent ratio of credit to cost in purchases of new equipment (Table 12). Accordingly, the volume of credit extended in connection with retail sales of complete new units of farm equipment in 1947 may be placed at 20 percent of $1,400 million, or $280 million.

Unfortunately there is no census record of used-equipment sales in 1947. On the basis of observations of individuals experienced in the farm equipment field, however, it appears that they amounted to about one-third of new-equipment sales, a judgment that is confirmed by unpublished BAE survey results. This proportion of used- to new-equipment sales would place total purchases of used farm equipment in 1947 at about $460 million, and the volume of credit used (according to the 26 percent ratio of credit to cost shown in Table 12), at about $120 million.

When these estimated dollar totals of equipment financing are distributed according to BAE findings as to the sources from which credit was obtained, it would appear that farm equipment credit was supplied as follows in 1947:

SOURCE OF CREDIT	AMOUNT SUPPLIED (MILLIONS)		
	New Equipment	*Used Equipment*	*Total*
Commercial banks	$134.4	$ 62.4	$196.8
Retail dealers	50.4	2.4	52.8
Production Credit Associations	28.0	8.4	36.4
Individuals	25.2	28.8	54.0
Farmers Home Administration	11.2	7.2	18.4
Finance companies	11.2	6.0	17.2
Manufacturers	2.8	...	2.8
Other	16.8	4.8	21.6
Total	$280.0	$120.0	$400.0

These estimates of credit volume, in so far as they are based on farmers' reports, would probably be biased downward, if at all, since it is more likely that farmers would fail to report credit purchases than that they would exaggerate their relative importance; but there is no reason to suspect a considerable bias. On the other hand, the retail sales estimate for new equipment, which also underlies the credit volume estimates, could be somewhat too high.[3]

The distribution of the credit totals among sources of supply, however, is incomplete because credit supplied by two or more sources in combination is all reported under one heading, "Other." Thus the shares of the various suppliers are understated to a degree that might require upward revisions of about 6 to 7 percent if the "other" transactions were assignable to each supplier group in the proportions suggested by the rest of the data.

[3] The U.S. Census of Business gathered direct reports of retail sales of farm equipment for the year 1948, which would serve as an approximate check on the estimate for new-equipment sales in 1947 if it could be assumed that the relationship between manufacturers' shipments and retailers' sales had been the same in both years.

The census reports on retail sales for 1948 give separate figures for new and used equipment in the case of the most important channels of distribution, but not throughout, and for some retailers equipment and supplies are lumped together:

Type of Store (Main Line of Merchandise)	*Farm Equipment Sales, 1948 (millions)*	*Coverage*
Farm equipment	$1,385	New equipment, excluding repair parts
Motor vehicles	176	
Department stores	96	Presumably only new equipment
Hardware	82	May include some used equipment
Hay, grain, feed	58	
Other farm supplies	21	
Lumber	12	
Building materials	4	
Total	$1,834	
General stores	87	Equipment and supplies
Dry goods, general merchandise (mail order stores included)	67	

For the five types of store where used equipment has to be taken into account, the total of equipment sales is $177 million. Judging by the proportion of used-equipment sales to new-equipment sales for the stores specializing in farm equipment (used equipment, $155 million; new equipment, $1,385 million), not more than $20 million of that $177 million would have to be excluded in order to arrive at a total for new equipment only. It seems likely that sales of new equipment by the general stores and mail order stores, if the amount could be extricated from their combined total for sales of supplies and equipment ($154 million), would more than balance the deduction for used equipment, and that total sales of new farm equipment through all retail channels in 1948 may be put at about $1,850 million.

Unadjusted census data on manufacturers' shipments indicate that factory sales of new farm equipment were 27 percent lower in 1947 than in 1948. If a similar rela-

The table on page 41, then, represents provisional estimates of the total market for retail farm equipment financing and its division among the sources of credit, in a year when dollar volume of equipment sales was high and might have been higher but for short supply and informal price control in the case of new equipment; when liquid assets carried over from war years probably lessened the farmers' need for credit; when an unusually large proportion of used-equipment transactions concerned individual farmers only, rather than dealers and lending agencies; and when the abnormally high prices paid for used as against new equipment gave used-equipment financing a more than usual importance.

Changes in the Proportion of Credit to Sales

Only a very rough comparison of credit use in 1947 and in the half decade before World War II can be made. If we restrict our attention to new equipment, some historical perspective may be obtained by turning to information gathered in the National Bureau survey of manufacturers, for in 1935–39 the equipment producers were the chief source of credit. Table 6 gives yearly estimates, from 1935 onward, of the total of farmers' notes received by all equipment manufacturers, and of total equipment sales (value of shipments of complete new units, based on census data). The sales totals can be converted to estimated retail value on the assumption that manufacturers' prices are two-thirds of the retail price. The amounts of farmers' notes received, divided by the estimated

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tionship could be assumed for retail sales, the indicated total for retail sales of new equipment in 1947 would be 73 percent of $1,850 million, or about $1,350 million.

The BAE estimate of retail new-equipment sales in 1947, on which the credit volume estimates are based, gives a total of $1,400 million, which is not quite comparable with the census-indicated $1,350 million because small attachments were no doubt reported to some extent in the latter, and repair parts, though mainly excluded, may also be present in small amount, whereas the BAE figure excludes parts and small attachments entirely. Small attachments made up 9 percent of total shipments inclusive of them in 1948, so that the census-indicated figure for comparison with the $1,400 million BAE estimate might have to be put as low as $1,200 million.

This indication that the $1,400 million estimate may be high is not a strong one, because the assumption it involves, that retail sales bore a similar relationship to shipments in the two years in question, is doubtful. Increased shipments in 1948 may not have been fully reflected in retail sales. The postwar shortage of farm equipment was easing at that time, and dealers' inventories may have increased.

retail new-equipment sales, give yearly percentages of credit use roughly comparable with that reported to the BAE for purchase of new equipment from all sources in 1947:

		Credit Used in Purchase of New Equipment, as a Percentage of Retail Sales [a]
1935	Manufacturer-supplied	32
1936	"	29
1937	"	26
1938	"	30
1939	"	27
(1940)	"	25
(1941)	"	20
1947	From all sources	20

[a] Percentages for 1935–41 are based on Table 6, adjusted for estimated retail markup. The 1947 figure is from Table 12.

The comparison necessarily ignores whatever credit was supplied in the prewar years by dealers and specialized lending institutions, and becomes entirely valueless at a point—conceivably as early as 1940—when the financing supplied by banks and PCAs attained considerable proportions in the total. Rough though the comparison is, its indication that the demand for farm equipment credit in 1947 was unusually low in relation to the dollar amount of purchasing is trustworthy. With better data the contrast no doubt would appear even sharper.