

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Agricultural Equipment Financing

Volume Author/Editor: Howard G. Diesslin

Volume Publisher: NBER

Volume ISBN: 0-87014-364-6

Volume URL: <http://www.nber.org/books/dies55-1>

Publication Date: 1955

Chapter Title: The Development of Facilities for Farm Equipment Financing

Chapter Author: Howard G. Diesslin

Chapter URL: <http://www.nber.org/chapters/c0751>

Chapter pages in book: (p. 22 - 35)

The Development of Facilities for Farm Equipment Financing

The price of many equipment items has always been high in relation to farmers' resources, and arrangements for financing time purchases of farm equipment are as old as its specialized manufacture. In all probability, sales of the more expensive items would have been severely limited, and the industry's progress badly hampered, if the market had been restricted to those farmers able to make full cash payment at time of purchase. The nature of the equipment, however, made it readily adaptable to the instalment payment type of purchase. As an income-producing asset the machinery could, under most circumstances, be made to "pay for itself" as used; and its relatively standard character, ready repossessability, and resalability made it acceptable as security for the necessary advance of credit.

ROLE OF THE MANUFACTURER

At first farm equipment was sold mainly by blacksmiths and general stores, more or less as a sideline; later it became a typical sales item for hardware stores. Not until the late 1800's did retail selling of farm equipment emerge as a distinct business. As this development took place, equipment came generally to be sold, at wholesale, on a commission basis. Title to equipment in the inventories of dealers remained with the manufacturer until sale, and settlements were made once or twice a year in cash and partly in farmers' notes taken in lieu of cash. Acceptance of farmers' notes was a common practice especially among manufacturers of harvesting equipment, where there was a large initial expense to the buyer. Manufacturers of plows, tillage equipment, farm

wagons, and other small equipment more often sold goods on a contract of purchase, under which the dealer paid either in cash or on relatively short terms. In this case the dealer had to arrange for any credit needed by his customers, or else to finance them himself through notes or open book credits.¹ As more elaborate machinery came into greater use, that proportion of the farmers' needs for equipment credit which dealers could supply became smaller. Relatively, as well as absolutely, dependence on financing by the equipment manufacturers increased.

In the period from 1850 until the early 1900's, the farm equipment industry was carried on by many small manufacturers. Sales competition was keen, and credit terms were at times very lenient, particularly among manufacturers of harvesting equipment. The following is noted, for example, about the early credit policy of the McCormick Company:

In the early fifties the price of the reaper was \$125. . . . In practice the cash received at the time of a sale varied from 10 to 25 percent, and the balance was collected whenever possible within the next year and a half. . . . In 1856, for example, only a third of the business done was for cash and the collectible portion of the balance was secured within fourteen months.²

Since the discounting of farmers' notes was not widely practiced by the companies, the financing of dealers' inventories and of their retail sales required manufacturers to maintain, at large expense, personnel to handle the credit operations, and kept considerable amounts of their capital continuously tied up in notes and accounts receivable.

The Long-Line Companies

Shortly after the turn of the century, many of the smaller manufacturing companies disappeared under consolidations and mergers, and the "long-line" companies made their appearance. Instead of selling only harvesting machinery, or wagons, or tillage implements, these new companies manufactured and sold a complete line of farm equipment. Even before combining, many of them

¹ *The International Harvester Co.* (Department of Commerce and Labor, Bureau of Corporations, 1913), pp. 291-94.

² Cyrus McCormick, *The Century of the Reaper* (1931), pp. 50 f.

had established their own distribution systems for selling their products to independent dealers scattered throughout the country. This method of distribution exists today and is commonly known as a branch house system.³ As it took shape, dealer contracts with the company were generally changed from a commission or consignment to a purchase contract. Some of the national companies have had from twenty-five to as many as one hundred such distributors. Branch houses, in turn, sell to the independently owned retail dealers, whose sales are made directly to farmers. Eventually some of the manufacturing companies developed company-owned and -operated retail outlets, but these handle only a minor portion of equipment sales throughout the nation.

Sales of farm implements and machinery are highly seasonal, and dealers' capital resources are ordinarily very limited. To change from a commission or consignment to a purchase type of contract with their dealers did not, therefore, significantly change the burden of wholesale financing carried by manufacturers. They continued to finance a large share of their retail dealers' inventories, usually on liberal credit terms.

Organizationally, the manufacturers' credit operations have been more or less closely bound in with the sales department's work. A few companies have not separated the two functions at all: their district sales managers, branch managers, and so-called blockmen are responsible not only for farm equipment sales but also for credit extension and collections. Other companies have maintained a separate credit organization within the sales department, with a credit manager and several district credit managers at headquarters, and a credit manager in each branch house, whose function is to examine and pass on the eligibility of applications for wholesale and retail credit and to make collections. In deciding on applications and making arrangements, however, the credit manager is ordinarily subject to the authority of the branch house manager, so that even in this type of organization credit is in some degree subordinated to sales. In either case, all credit accounts, both farmers' and dealers', are commonly held at the branch house and collections are made from that point, with handling of credit

³ The "branch house" system was quite common by 1900; in fact, it developed much earlier in this industry than in most other types of industries, probably sometime before 1890 (*ibid.*, pp. 227 and 233).

transactions at the general offices kept to a minimum. A few companies, however, handle notes and accounts in large part at the general office level.⁴

*Changes in the Volume of Credit
Extended by Manufacturers*

Complete data showing the amount of equipment credit extended by manufacturers during the early 1900's are not available, but it appears that after World War I and through the thirties there was a relative increase in its use by farmers following the widespread adoption and sale of farm tractors. During the decade of the thirties, farmers' notes outstanding at year end averaged more than 50 percent of total sales for some of the larger equipment companies; in fact, some companies held farmers' notes amounting to more than 100 percent of sales during the most severe depression years.

Information on the financing activities of farm equipment manufacturers in the late thirties and the forties has been gathered in a survey by the National Bureau of Economic Research.⁵ Table 6 summarizes the survey reports on credit extended to farmers annually from 1935 through 1948, gives the resulting estimates of retail credit supplied by the industry, and relates the volume of manufacturer-supplied credit to the volume of sales (complete units of new equipment at factory prices). It is estimated that from \$100 to \$140 million of farmers' notes were acquired annually from 1935 through 1941 by all equipment manufacturers combined, and that the dollar volume of equipment financing by

⁴ Until about 1930 one company followed a variant of the above-mentioned system by maintaining separate collection offices, each of which handled collections for several branch houses. Under this arrangement credits were analyzed and accepted at the branch house level, where down payment and other credit terms were established through the sales department, but all problems of collection were handled in the specialized offices.

⁵ The survey was conducted by interview in the spring of 1949. Four large companies, whose sales volume comprised more than one-half of the sales volume of the industry throughout 1935-48, provided data for those years as follows: total domestic sales of farm equipment; farmers' notes received annually and outstanding at year end; past due notes; and losses on notes outstanding. Information on sales and on notes received and outstanding was available for a fifth company for the years 1939-46. Four companies reported on dealers' notes, but not in a form that would permit a tabular summary for the group. A variety of information on credit standards and practices was also given.

manufacturers ranged between 48 percent of their sales in 1935 and 29 percent in 1941, with an average of 39 percent for the entire seven years. Their holdings of farmers' notes are estimated to have ranged between 55 percent of factory sales in 1935 and 23 percent in 1941, averaging 37 percent for the whole period of seven years. At the same time the companies were carrying a large burden of dealers' obligations. The survey information on credit to dealers, though less complete than that on credit to farmers, nevertheless appears broadly representative. Indications are that over the seven-year period 1935-41, for all manufacturers combined, the total of notes and accounts receivable from dealers nearly equaled the total amount of farmers' notes held. The forties brought no striking change in this inventory financing by manufacturers; but with retail credit it was another story.

In 1942, farmers' notes taken by manufacturers, as well as their holdings at year end, declined sharply (Table 6). By 1944 both of these measures of the volume of manufacturer financing activity stood at only 1 percent of factory sales, and they remained at that level, or fell below it, in the four succeeding years. Some manufacturers carried no farmers' notes at all from 1942 through 1948, and others handled only insignificant amounts. In a process actively promoted by a large part of the industry and favored both by the agricultural and the credit conditions of those years, manufacturers all but ceased to finance retail sales of farm equipment, and that function passed to other hands.

With World War II the equipment industry entered a sellers' market, although under government control sales were held to nearly prewar levels, equipment being sold to farmers on an informal rationing basis. In what proportion of their equipment purchasing farmers used credit during the war years, and to what extent lending agencies as well as dealers supplied credit, is not known. Some dealers had by then entered into standing agreements with banks or other credit agencies for the financing of their sales, and others were seeking to do so. In 1946-48 many more such arrangements were made. One large manufacturing company stated that in 1948 about 90 percent of its dealers had bank agreements of this sort in operation; another said that 70 percent of its dealers had made customer-financing agreements with banks and local finance companies. By mid-1949 a buyers' market again pre-

TABLE 6

RETAIL FARM EQUIPMENT FINANCING BY REPORTING MANUFACTURERS, AND ESTIMATED FINANCING BY ALL MANUFACTURERS, 1935-48
(dollar figures in thousands)

YEAR	REPORTING MANUFACTURERS			ALL MANUFACTURERS			RATIO TO TOTAL SALES	
	Sales ^a	Farmers' Notes Received	Farmers' Notes Outstanding	Total Sales ^b	Total Farmers' Notes Received ^c	Total Farmers' Notes Outstanding ^c	Total Farmers' Notes Received	Total Farmers' Notes Outstanding
1935	\$168,680	\$ 81,453	\$ 92,358	\$ 217,803	\$105,174	\$119,254	48%	55%
1936	221,787	97,221	98,235	295,058	129,340	130,689	44	44
1937	305,351	118,986	109,642	366,799	142,930	131,706	39	36
1938	226,207	102,460	98,642	293,306	132,852	127,902	45	44
1939	202,673	83,507	79,375	286,476	118,036	112,196	41	39
1940	259,846	97,665	86,176	343,566	129,132	113,941	37	33
1941	365,073	107,483	85,683	477,192	140,495	111,999	29	23
1942	287,145	51,229	42,781	481,068	85,826	71,673	18	15
1943	155,229	6,888	6,955	178,196	7,907	7,984	4	4
1944	263,325	3,639	2,772	386,128	5,336	4,065	1	1
1945	265,947	1,412	1,373	426,553	2,265	2,202	1	1
1946	321,696	2,361	1,856	557,568	4,092	3,217	1	1
1947	416,161	397	296	852,038	813	606	d	d
1948	628,411	544	405	1,162,306	1,006	749	d	d

Based on the National Bureau survey of farm equipment manufacturers; see text footnote 5.

^a Sales reported are net sales (after all discounts) of field and farmstead equipment as defined in footnote 2, Chapter 1, but exclusive of parts and small attachments.

^b Total domestic sales (f.o.b. factory) as reported to the Bureau of the Census, minus repair parts and small attachments. Parts and attachments are excluded in the following manner: estimated to be 20 percent of total sales each year during 1935-42 (sales data from *Agricultural Statistics, 1951*, U.S. Department of Agriculture, Table 620, p. 540); 1943-48 sales are complete units,

exclusive of parts and attachments, as reported by the Bureau of the Census (in *Farm Machines and Equipment, 1948*, Table 2, pp. 8 f., and *Farm Machines and Equipment, 1949*, p. 5). Machines for industrial and military use, internal combustion engines, hand tools, and some unspecified other items, excluded from 1943 on, are included for earlier years. For total sales inclusive of parts and attachments, see Table 4.

^c Obtained by inflating the amounts of farmers' notes received and farmers' notes outstanding for reporting manufacturers by the ratio of total sales to sales of reporting manufacturers.

^d Less than one-half of 1 percent.

vailed. Nevertheless the majority of manufacturers were still making efforts to promote outside financing of equipment sales, though maintaining stand-by credit organizations in case the need for retail financing should grow beyond the availability of credit from outside agencies.

ROLE OF CREDIT INSTITUTIONS AND OTHER SOURCES

Commercial Banks

The larger commercial banks have always been important, indirectly, in financing farm equipment sales by lending funds to the manufacturing companies. This type of borrowing has been mainly on an unsecured basis, supported only by the general credit of the company; few manufacturers have made a practice of discounting or assigning their farmer receivables, though this has been done to some extent with dealers' notes. In any case, the effect of unsecured borrowing was to enable the manufacturing companies to carry, as they were doing until the 1940's, large amounts of farmers' obligations in addition to those of dealers, without significantly reducing the funds available for other uses. Banks have also extended credit to, or through, equipment dealers, by making inventory loans, or by discounting farmers' notes taken by the dealers in connection with time sales of equipment. As for direct credit to farmers, commercial banks have long been an important source of farm production loans, and farmers with bank relations established for such borrowing have frequently extended these arrangements to cover their equipment purchases.

However, there have been certain limitations on the activities of commercial banks as sources of farm equipment credit for users and dealers. First, throughout the 1800's, when the equipment industry was developing, commercial banking facilities were limited in number in many agricultural regions, particularly in the newer areas, and the loanable funds of existing banks were not always adequate to meet local needs. Secondly, banks, as might be expected of deposit-taking institutions, were conservative in financing new products, a serious limitation on their activities in a field characterized by rapid technological change. A third limitation, which persisted, in part at least, through the 1930's, was the conventional bank practice of writing equipment loans with short

maturities—usually not more than six to nine months—whereas farmers often required a considerably longer period, twelve to twenty-four months, for complete repayment. Manufacturers often did not regard the banks as dependable sources of agricultural credit; there was a distinct feeling—founded, no doubt, on experience—that in periods of credit stringency banks would discontinue making new loans and possibly even go to the point of calling old loans outstanding, thus restricting the equipment market. Therefore in other matters besides repayment schedules, manufacturers frequently offered credit on more attractive terms than banks did. When, in the thirties, manufacturers were anxious to turn over their credit functions to banks and other agencies, their success was delayed, for instance, by the dealers' finding that banks required their endorsements on farmers' notes they wished to sell, whereas the manufacturers, having learned in the worst depression years the limited value of this security, were willing to forgo it. Moreover, farmers, accustomed for many years to look to the equipment companies for credit, naturally tended to continue doing so.

From the late thirties onward, and throughout World War II and the postwar years, country bankers, in particular, have grown more willing to accept mechanical-powered equipment as loan security, and their lending activities in the field of farm equipment purchase financing have increased correspondingly. In 1948, 45 percent of the 14,171 commercial banks in the United States were making direct loans to farmers for the purchase of equipment; and 25 percent were making loans to farm equipment dealers, either for financing inventories or farmers' notes, or for both of those purposes.⁶

Commercial Finance Companies

Finance companies have not been sufficiently active in the farm equipment financing market to have any considerable effect on its development, being much less important as a source of credit here than in the financing of durable consumer goods and of industrial and commercial equipment for nonagricultural business use. With the exception of one national finance company through whom a

⁶ *Consumer Instalment Lending Directory*, American Bankers Association (1948), p. 9.

single large manufacturer of tractors and other farm equipment offers financing to dealers and farmers, only local finance companies are concerned. They do some retail financing, but for the most part it is business that involves too high a risk to be attractive to other lending agencies.

There are several reasons why commercial finance companies have not operated extensively in the farm equipment financing market. First, they were not in existence when farm equipment financing began; they developed considerably after the manufacturers had built their own financing organizations and established standard terms and charges. Secondly, a factor that appears to have discouraged the finance companies is the seasonal irregularity and general instability of farm income, which make repayments on a weekly or monthly basis impractical, as a rule, and often force the extension of a loan beyond the expected maturity. Normally, finance companies operate in markets where the borrower, barring unforeseen events, has a regular flow of income and where repossession can be made without difficulty in the event of default. In the third place, the interest charged by manufacturers on farmers' notes has usually been lower than that obtainable by finance companies in most of their nonagricultural operations. Finally, the insurance required of borrowers provides finance companies with additional income in their retail truck and automobile financing, which is not forthcoming in the case of farm equipment because manufacturers have seldom required insurance on the equipment they financed.

Production Credit System

The federal production credit system functions through local associations (PCAs) which provide short-term financing for all types of farm and ranch operations. The associations are relative newcomers in the field of farm equipment financing, having been in operation only since 1933. Their total loan volume has been steadily increasing, and they have become an important source of equipment credit. They extend this credit only in the form of cash loans to the farmers purchasing the equipment; their loans frequently cover farmers' general working capital or production needs, and are therefore different in several important respects from cash loans made exclusively to finance equipment purchases.

Owing to statutory limitations on the scope of their activities, PCAs cannot finance farmer purchases of equipment indirectly by lending through retail dealers, nor can they finance dealer inventories.

The amount of their direct activity in this field varies from region to region. Table 7, though the importance of equipment credits in PCA lending is probably overestimated throughout, is of interest for the regional pattern it shows. Nearly 60 percent of estimated PCA equipment lending is concentrated in the East and West North Central and Middle Atlantic states, regions where equipment demand is in like degree concentrated, about 60 percent of the nation's farm machinery and implements, measured by dollar value, being reported in use there (Table 2). The very marked regional differences in the importance of equipment credits as against other PCA financing probably reflect differences in the types of farming chiefly engaged in; in a general way (New

TABLE 7
REGIONAL VARIATIONS IN ESTIMATED FARM EQUIPMENT FINANCING
BY PRODUCTION CREDIT ASSOCIATIONS, 1947

CENSUS REGION ^a	TOTAL NEW LOANS ^b (THOUSANDS)	EQUIPMENT FINANCING ^c	
		Percentage Distribution	As Percentage of New Loans ^d
New England	\$ 13,482	1%	8%
Middle Atlantic	29,699	16	45
East North Central	92,140	27	25
West North Central	99,164	16	14
South Atlantic	67,420	8	10
East South Central	48,603	6	11
West South Central	129,372	12	8
Mountain	84,881	8	8
Pacific	71,039	6	7
United States	\$635,800	100%	14%

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

^b Total loans, as given in Table B-1, less renewals, from *Production Credit Associations, Summary of Operations, Calendar Year 1947* (Farm Credit Administration, 1948).

^c Based on the National Bureau of Economic Research survey of PCAs, described in Appendix B.

^d Estimates are biased upward; see Appendix B.

England and the Pacific states being exceptions) they resemble the variations in value of equipment used per acre of harvested cropland (Table 2).

Other Lending Institutions

There is some evidence that farmers obtain funds to acquire equipment from such long-term credit agencies as the federal land banks, and possibly also from insurance companies, on a real estate mortgage basis. Such loans may be made solely to finance a heavy investment in machinery and equipment, or the farmer may use part of the funds obtained on a mortgage basis where some other purpose predominated. This type of equipment financing is not covered in the present study since it is virtually impossible to isolate in the investment activities of the long-term credit agencies. Also, it is thought to be very small in amount. A special study made in 1949 by the federal land banks showed that about 2 percent of the loans which they closed were for such purposes. This would place their 1949 equipment financing at around \$3.5 million, probably less than 1 percent of total equipment credit utilized by farmers.

Other lending agencies, such as the Farmers Home Administration and local credit unions, do a limited amount of farm equipment financing, but these will not be discussed separately, owing to their minor role.

DEALERS AND INDIVIDUALS

Retail dealers in farm equipment supply a significant part of the total equipment credit utilized by farmers today, perhaps being second only to commercial banks in this respect; but data do not exist by means of which to compare their position now with that in former years. Their second important credit function, that of arranging with outside lending agencies for the financing of customers' purchases, represents an increased responsibility entailed by the manufacturers' recent withdrawal from this credit market. A special survey of retail dealers' equipment financing, conducted in the spring of 1948,⁷ indicates to what extent the retailers

⁷ Appendix A describes the survey and comments on the representativeness of the sample.

had been able to establish relations with various types of credit agencies, and for what proportion of sales the agencies supplied credit. Seventy-one percent of the reporting dealers stated that they had standing agreements with lending agencies to finance their customer sales (Table 27, page 72). According to the reports summarized in Table 8, which includes but is not limited to the credit arranged under standing agreements, 11 percent of retail new-equipment sales throughout the nation in 1947, and 3 percent of dealers' sales of used equipment, were financed through outside agencies under arrangements made, at least in part, with the help of the dealer. The importance of this practice was greatest for retailers with comparatively large sales volume. Some of the regional variation indicated by Table 8 must be attributable to

TABLE 8
ESTIMATED PROPORTION OF RETAIL SALES OF FARM EQUIPMENT FOR
WHICH REPORTING DEALERS ARRANGED FINANCING
BY OUTSIDE AGENCIES, 1947

CENSUS REGION AND SALES VOLUME	DEALERS REPORTING	PROPORTION OF SALES FINANCED	
		<i>New Equipment</i>	<i>Used Equipment</i>
Census region: ^a			
New England	6	11%	2%
Middle Atlantic	21	16	3
East North Central	83	9	2
West North Central	91	7	4
South Atlantic	16	14	1
East South Central	8	10	2
West South Central	24	14	4
Mountain	28	13	4
Pacific	12	20	5
Sales volume:			
Under \$50,000	109	9	2
\$50,000-\$99,999	97	11	4
\$100,000 and over	83	13	4
Total	289	11%	3%

Based on the National Bureau of Economic Research survey of dealers; see Appendix A.

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

that fact, for average sales volume per dealer is high in the Pacific and West South Central regions, and probably also in the Mountain states (cf. Appendix A). About half of the reporting dealers mentioned commercial banks as the sole source to which they referred their customers for credit, and a number of others mentioned banks in addition to some other source—chiefly PCAs and finance companies.

It is of interest that dealers, in their estimates of the credit they extended directly to purchasers (Table 9), indicated least use of it in those regions where most equipment is bought (as suggested by Table 2). For the East North Central region this is not surprising, since less of the total bill for farm equipment is paid for by credit from all sources in that region than in any other (Table

TABLE 9
ESTIMATED PROPORTION OF RETAIL SALES OF FARM EQUIPMENT
FINANCED BY REPORTING DEALERS DIRECTLY, 1947

CENSUS REGION AND SALES VOLUME	DEALERS REPORTING	PROPORTION OF SALES FINANCED	
		<i>New Equipment</i>	<i>Used Equipment</i>
Census region: ^a			
New England	7	12%	8%
Middle Atlantic	21	8	1
East North Central	96	6	3
West North Central	99	4	3
South Atlantic	16	9	14
East South Central	8	11	3
West South Central	27	5	2
Mountain	31	9	6
Pacific	12	16	21
Sales volume:			
Under \$50,000	120	5	2
\$50,000–\$99,999	106	5	4
\$100,000 and over	91	10	8
Total	317	7%	4%

Based on the National Bureau of Economic Research survey of dealers; see Appendix A.

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

12). The West North Central states, too, are below the national average in the extent to which they utilize credit for this purpose. But the West South Central region is a comparatively heavy credit user, and perhaps in its smaller proportion of dealer-supplied credit lies an indication of relatively greater activity by commercial banks in farm equipment financing there, for which we otherwise lack evidence.

Individuals are an important source of farm equipment credit; but the almost complete absence of data on their lending activities, and the wide range of circumstances involved in the credits they extend, make it impossible to give much attention to them as a credit source.