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## *Evaluation of the Credit Market and Credit Institutions*

**W**HAT IS HAPPENING on the financial front in agriculture? A close look at Table 13.1 quickly indicates windfall gains from inflation much like we've seen in the stock market and other ownership sectors of the economy. The same land base of 1940, with material improvements and more real estate added, of course, was worth nearly four times as much in 1960. Other farm assets have increased in value on a similar scale. Debts of farm operators have more than doubled—increased at about one-half the rate of increase in farm assets.

Table 13.1. Comparative Balance Sheet of Agriculture,  
January 1, 1940, and January 1, 1960

Items	1940	1960
	(billion dollars)	
<b>Assets</b>		
Real estate	33.6	129.1
Nonreal estate	15.2	56.1
Financial assets	4.2	18.4
Total	53.0	203.6
<b>Claims</b>		
Real estate debt	6.6	12.3
Nonreal estate debt	3.0	10.6
Commodity Credit Corporation	.4	1.4
Total	10.0	24.3

Source: The Balance Sheet of Agriculture, 1960, USDA Agr.  
Info. Bul. 232, Washington, D. C., Aug., 1960, p. 2.

Thus, the financial condition of the agricultural plant, in the aggregate, is extremely solvent. In no period since 1920 has the industry's financial health been so sound as during the 1950's. Assets nearly quadrupled and net farm income tripled while total debts only doubled from 1940 to 1960. Delinquency on indebtedness and foreclosures have been practically nonexistent. Rapidly rising land values have eliminated the need for foreclosures and offset any lending errors that may

have occurred. Windfall gains in asset values have removed some of the "sting" of depressed farm earnings. However, such gains are realized only on sale of the property or through the enlarged credit base provided.

Few of the credit problems anticipated at the close of World War II have materialized. Yet, always on the horizon is the possibility the situation may change. Certainly the strong financial condition of the industry has helped agriculture weather the cost-price squeeze.

### CHANGING CREDIT CLIMATE

Agriculture is faced with higher interest rates, rising taxes, and lower farm earnings. The result at some point must be lower farm real estate values. It is all but certain that this point has been reached. Farm real estate values have continued to rise despite falling net farm income as follows:

	<u>1939-59</u>	<u>1951-59</u>
	(percent)	
Changes in net farm income	+150	-28
Change in farm real estate values	+244	+41

The USDA reports a 3 percent rise in land values from March, 1959, to March, 1960, compared with an almost 8 percent rise during the same period a year earlier. For some years to come, we may look back to the March, 1960, index as the all-time high for farm land values in the United States.

Reports from different sections of the nation indicate that land values are leveling off in many areas. The demand among farmers to enlarge farm units will continue strong. However, farm land is selling more slowly. There has been a noticeable shift from a "sellers" market to a "buyers" market. However, land values will not decline sharply unless the number of farms for sale increases substantially. The 1960 levels of farm income, taxes, and interest costs will not support land values except for enlargement purposes.

If the above prediction does materialize, important credit implications are involved. Repayment of loans must then come from net earning capacity. Adequate repayment capacity can hardly be provided by rising asset values and a corresponding increase in credit base, the situation which has prevailed for more than 20 years.

### RETURN TO SOUND CREDIT PRINCIPLES

In the 1940's and 1950's credit was the farmer's cheapest production tool in many respects. This period was an "empire builder" for

those with sufficient initiative to use large amounts relative to total assets in their business. Now a period when asset values on farm property may remain relatively stable at best, or may deflate somewhat, is anticipated. In addition, the United States economy generally has used the loan reserves accumulated in the 1940's and early 1950's. The postwar credit expansion has about run its course, and agriculture must compete with other sectors of the economy for the existing credit base plus the growth in this base from year to year.

In broad terms a farm operator is thought of as having a zero equity in his operation as a hired man. He has no risk except the loss of his job. On the other hand, a farmer having a 100 percent equity in his business (and little or no credit base) is a subsistence farmer. The higher and more stable the earning capacity of the farm business, (1) the higher the credit base relative to the total asset structure, and (2) the greater the possible division of ownership, management, and operation in the business. In addition, the permanent and indestructible qualities of land have always been given special credit consideration.

The 1960 period is one of indecision on agricultural credit. Some lenders may soon become loss-conscious and overcurtail amounts of loans. Farm suppliers generally remain sales-conscious and find the needed credit to finance their sales. As soon as losses to suppliers begin to increase materially, they will likewise be more concerned about sound credit principles. There is no credit panacea for the farm income problem. There is no magic new credit device to (a) solve income problems of individual farmers, or (b) solve the income problem of agriculture. Careful financial planning can (1) raise income on farms needing capital that currently have good balance between owned and borrowed capital, and (2) quickly cut back credit lines on farms that are overextended relative to earnings and assets.

Commercial lenders generally have been faced with declining lendable reserves. Interest rates are at near record levels, considering the years since 1935. Loan committees face the distressing job of continually reappraising their loan portfolios. What industries and which individual farms should be given priority? Who falls out of the credit portfolio? Lenders have again assumed the difficult and responsible task of allocating future business expansion within their sphere of operation. Agriculture and the individual farmer have a large stake in this process. Fortunately, the industry enters this era with its financial organization in good order.

## EFFECTS OF TECHNOLOGY ON EARNING CAPACITY

The widespread application of new technologies and improved management to the commercial farm have tended to expand the size and scale of efficient operation very rapidly during the few decades before 1960 (cf. Chapters 6 and 7). The net result has been larger capital requirements per man and per farm along with greater division of labor,

management, and ownership functions in the commercial farming operation. Commercial agriculture is beginning to show a greater tendency to produce for a market rather than just to produce goods. Integration of the agri-business structure in commercial agriculture is leading to increasingly complex financial problems. As this whole process moves forward, the objective in commercial farming may soon become control rather than ownership of resources in agriculture. Certainly, financial management increasingly is the key to success or failure of the individual firm in commercial agriculture.

The net effect of the rapidly changing size and scale of the commercial farming operation has been to increase the difference in earning capacity of individual farms and operators in the commercial farming classification.<sup>1</sup> As a more concrete example of this widening range in earning capacity, consider this simple illustration:

Net Income for a Given "Bundle" of Labor, Capital,  
and Management on Commercial Farms

	<u>Upper one-third</u>	<u>Middle one-third</u>	<u>Lower one-third</u>
1940	\$3.00	\$2.00	\$1.00
1959	4.00	2.00	.50

The author here is speculating that the real net income to the "bundle" of resources has increased materially for the upper one-third of the commercial farms since 1940; that it has changed little or none for the middle one-third; and that net earnings in real terms to those in the lower one-third has probably decreased. The difference in earning capacity has widened materially between the upper and lower third of commercial farms, in fact, even between the upper and middle third, during a very short span of years. Along with this, we also recognize that the typical bundle of labor, capital, and management resources has shifted toward more management and capital and much less labor. The author estimates that the ratio changed from 3-2-1 to 8-4-1 during this period. It is not argued that the magnitude of the change in ratio is anywhere near correct, but that the direction of the change is correct. If this assumption is valid, important financial implications follow from the rapidly changing nature of the economic unit called the commercial farm.

The differential between the commercial and noncommercial farming sectors is even more striking. Thinking in terms of the part-time, residential, and low-income subsistence units in the noncommercial farm sector, a monetary comparison would be rather difficult to make. On the one hand, the bulk of the income of the commercial farm is from farming. On the other hand, a larger percentage of the income of the noncommercial sector comes from nonfarm sources. However, the

<sup>1</sup> H. G. Diesslin, "Effect of urban and industrial development on agricultural finance," Jour. Farm Econ., Vol. 40, No. 5, Dec., 1958.

differential between the commercial and noncommercial sectors was still not so distinct in the 1930's and early 1940's. The author doubts seriously whether this was true in 1960. Basically, the noncommercial sector of agriculture has been an owner-operator type of unit with a limited amount of credit available to it. What credit was available came primarily from individuals and local lending institutions, and the amount was based more on the balance sheet and moral characteristics of the borrower than on the earning capacity of the farm resources. Here, too, is another example to illustrate the widening differential of farm earnings between the commercial and noncommercial sector:

Net Returns to a Given "Bundle" of Labor, Capital,  
and Management in Agriculture

	<u>Commercial farms</u>	<u>Noncommercial farms</u>
1940	\$2.00	\$1.00
1959	2.50	.25

In terms of real net returns to a given "bundle" of resources, the author speculates that the ratio between noncommercial and commercial agriculture went from 1-2 in the pre-World War II period to 1-9 in 1960. In addition, it is taken into account the fact that the volume of gross production per farm in the noncommercial sector traditionally has been extremely small as compared with the commercial segment.

If the part-time farmer is going to be credit worthy from the farm or the nonfarm standpoint, one must look at the pattern of urban and industrial development to determine where opportunities exist. Areas of rapid urban and industrial development no doubt offer some credit potential. However, the financing problem of the part-time farmer, including the credit problem, is becoming more and more a problem to be answered in terms of the amount and variability of nonfarm income and the resale value of the property in question.

Little time needs to be spent with the question of the residential farmer. Here the financing problem and the credit base at the outset rests on the individual's financial situation and earning capacity in non-farm employment.

In reviewing the financial implications of the above situation, some of the conclusions drawn are as follows:

1. The earning capacity of the farm in question becomes the significant factor in determining the debt-carrying capacity of any given farm.
2. The debt-carrying capacity (from the standpoint of total asset structure) of the upper one-third of our commercial farms has increased materially since 1940, while the reverse situation holds for the lower one-third of our commercial farms.
3. With each passing year, the finance problem in the noncommercial farm sector becomes more and more a problem of financing a non-farm rather than a farm enterprise.

## APPRAISAL OF CURRENT AGRICULTURAL CREDIT PRACTICES

Credit practices in American agriculture have changed materially since the early part of the twentieth century.<sup>2</sup> The credit base of the industry has strengthened substantially as farming has moved to a commercial business structure. In addition, the capital and credit requirements per farm and per working man have pyramided during this short span of half a century.

One of the more prominent features of the earlier period yet remains, i.e., specialized lending institutions which finance only a part of the farming operation provide the major share of the credit to agriculture. Thus, in appraising credit practices, account must be taken of the conventional kinds of credit used—short-, intermediate-, and long-term loans—since any analysis made is more easily understood on this basis.

Short-term credit includes that used for operating expenses. In terms of the type of property being financed, short-term credit is generally associated with nonreal estate items.

Intermediate-term credit includes that used for purchase of assets that have a productive life in excess of one year, such as machinery, breeding stock, land improvement, building improvements, and the like.

Long-term credit is generally associated with farm real estate. Intermediate-term credit, therefore, overlaps into both the short- and long-term areas.

## Short-Term Operating Credit

What progress has been made with the two perennial problems associated with operating loans—terms that are too short and collateral requirements that are too high? Lenders have expanded the use of budgeted loans which match repayments with estimated income dates and which base note terms more nearly on income capacity.

Collateral security has by no means been relegated to a minor role. In fact, chattel mortgages are more commonly used even for farm operating needs. The stigma attached to a chattel mortgage was largely removed during the 1950's. Lenders are using the chattel mortgage much more frequently. This instrument helps to insure that one lender will handle all the borrower's operating credit needs. Where this is the purpose, lenders are doing both the borrower and themselves a service as long as they meet the farmer's needs for optimum farm operations.

Alert lenders are fitting their short-term loans to the productive needs of the farmer. They gear the loan to proper fertilizer use, balanced feed rations, better seed, and the like. Such loans are repaid from gross income of the farm, whereas real estate loans must be repaid from net farm earnings.

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<sup>2</sup> H. G. Diesslin, "A re-examination of the credit needs of agriculture," Jour. Farm Econ., Vol. 36, No. 5, Dec., 1954.

A large volume continues to be handled by farm suppliers. Farmers can reduce costs materially on many items with cash purchases. Short-term credit from credit agencies remains an important tool to aid the farmer in reducing costs and increasing income. This is the type of credit many lenders are best adapted to service. A larger volume is available to lenders in most agricultural areas.

Despite the continued increase in cash operating costs relative to total farm income during the past several decades, there are probably fewer inherent problems in this credit area than either the intermediate- or long-term areas. Although inadequate note terms and high collateral ratios are still common problems in some areas, much progress has been made. Continued effort to overcome inadequate note terms and high collateral ratios will serve to strengthen the loan portfolios of lenders and to give farmers a firmer economic base on which to plan their farm operations. (Also, see related discussions in Chapters 15-18.)

### Intermediate-Term Credit

Credit in this area can be more effective in increasing the productivity of agriculture than in any other area. Yet this continues to be the weakest link in the agricultural market. Engberg arrives at a similar conclusion in Chapter 15. Problems requiring study include the amount and continuity of the investment program needed to yield results as well as the nature and terms of the credit program needed. Since the success of intermediate credit programs depends more heavily upon increases in productivity than do other types of credit programs, lenders generally have been slow to adapt their loan programs to meet the situation.

Capital assets for which intermediate-type credit is required may be divided into two major categories.<sup>3</sup> First, certain items are needed even to farm on a commercial scale. These would include the farmer's machinery, his breeding stock, and other similar items. These capital assets have become a substantial portion of the total assets on commercial farms.

The second major category of capital assets includes those needed for improvement, adjustment, or expansion programs. These improvements may be of either a real or nonreal estate nature and have a productive life in excess of one year. The purpose of these improvement, adjustment, or expansion programs is to increase the earning capacity of the farm and the income of the farm operators.

Such programs generally follow a sequence which must be completed in order to yield expected increases in net returns. For example, in

<sup>3</sup> J. H. Atkinson, Financing Adjustments in the Southern Piedmont, Farm Credit Administration Bul. CR-7, July, 1955; L. E. Kreider, Farmers' Needs for Intermediate-Term Credit, Farm Credit Administration Bul. CR-6, Oct., 1954.

shifting from a cash crop to a cash crop-dairy program, a farmer must establish a pasture and make ready the dairy barns and other equipment before the cows can be purchased and the milk sold. In other cases, the improvement program may merely be a matter of doubling or tripling the present size of an enterprise in order to increase efficiency of production.

The total capital involved in such an improvement program may be substantial. Studies of such improvement programs on individual farms over a period of years indicate that they may, in many cases, equal the original investment in real and nonreal estate assets.

With respect to this latter type of intermediate credit need, the lender must be skillful and experienced in order to assess the probable results properly.

First, he must be able to estimate the increase in the earning capacity of the farm operating unit after the capital investment program is completed. Second, he must be able to judge the time span necessary in order to complete the improvement program and determine when the increased earnings will be forthcoming. Third, the lender should be able to judge the change in fair market or sale value of the property in the community which will result from the completed improvement. This is particularly important in the case of real estate improvement—new buildings, tile, fence, soil improvement, and the like. The lender should be able to reappraise the farm in view of these improvements and increase the loan limit on the property accordingly. Proper precautions can be taken to see that the money loaned is used for the improvements designated.

The essential factor in the success of this type of lending program is correlating payment programs with repayment capacity. Murray and Engberg present similar arguments in Chapters 11 and 15, i.e., most programs must be carefully budgeted in order to estimate the income dates and amounts. Income must be balanced against a continuation of investment expenditures that follow a logical sequence. Much support has been given to the idea that a five-year investment program should be covered by a five-year note, a seven-year program by a seven-year note, and the like. On the contrary, the term of the note need not coincide with the length of the program. Where the repayment capacity on a sound loan is five years, a five-year repayment program is essential, but the term of the note in this situation may vary from one to five years, depending on several circumstances. The actual term of the note written on intermediate-term credit should depend on the risk of the loan in question. The term of the note can be used by the lender to reduce the risk of the loan, or at least to retain better control of the situation.

First, assume that we have a marginal borrower. He currently has borrowed about all that is safe on his real estate and nonreal estate assets in his particular situation. However, careful budgeting indicates that an investment equal to 15 percent of his present total assets over the next four years would increase the net earning capacity of his farm



about 50 percent. Such a loan would be a sound investment for the lender, since it increases the repayment capacity on the money already loaned as well as on the intermediate credit necessary to improve the farm. However, this is a situation of maximum risk to the lender. In order to retain control of the situation, the lender should logically use an annual note in order to keep repayment "pressure" on the borrower. If trouble develops, the lender is in a position to act quickly in this situation.

A second situation might involve an individual with a safe debt load who is currently adjusting his farming operation to include a major livestock enterprise. In this situation, the managerial ability of the operator with respect to this new enterprise is unknown. Such an investment would require a repayment program of several years. If the lender is concerned about the risk, an annual note is in order. However, the borrower in this situation is entitled to a written agreement stating the conditions of the renewal from year to year.

The third category would include the individual who has sufficient equity, proven managerial ability, and well-formulated operation plans. There is every reason to give him a note of the same duration as the repayment program set up for the loan—whether it is a three-year or a five-year repayment program.

The term of note is restricted by state statutes and supervisory directives in some instances. For example, some commercial banks are restricted to loans not exceeding one year unless secured by a title retention note (conditional sales contract or purchase money contract). There are no federal laws or regulations limiting the note term, and there is no opposition from the Federal Reserve Board. A letter by the Board of Governors (S-1579) was valuable in that it helped to clear up this important credit policy area for banks.

Often farmers, particularly those who already have some credit base, find it extremely difficult to retain much flexibility in their program if a commitment is made on a note with terms longer than one year. Farm operators seldom make detailed plans over a five- to seven-year period, even though a major improvement program may require such a time span. And timing of the improvement program by the farm operator will vary materially with year-to-year changes in prices, yields, and other expectations.

An annual appraisal of the year's results, which allows checking the progress and adjusting future plans, is a strong advantage of the annual renewable loan to both lender and borrower. Most farmers have in mind a long-term operating objective, and they plan year by year toward that objective. This objective is subject to constant revision as a result of economic and production uncertainty. Where a substantial amount of the investment loan is renewed from year to year, however, a written agreement stating the condition of the renewal is highly desirable. This practice is not currently followed.

Commercial lenders must adapt their lending policies to the increased intermediate credit needs if they expect to serve agriculture.

Based on economic considerations, added working capital such as more machinery, livestock, buildings, tile, fences, and the like, create new wealth in agriculture just as new homes do in the general economy.

### Long-Term Loans

Under present mortgage lending practices, considerably less than 50 percent of the current market price of a farm can be borrowed on the average. Loans as high as 50 percent of the market price on the average, and better quality real estate, are becoming less uncommon. However, less than 50 percent is the practical maximum on most of the commercial land in farms in the United States.

Mortgage loans are such a small percentage of the current market price that any loss to the lender is hardly conceivable. Delinquency and foreclosure have been practically nonexistent since the beginning of World War II. Even during the 1950's, delinquency did not increase a great deal. It is true that this conservative lending policy retarded the rise in farm land value during and following World War II. At the same time it has made the purchase of farm real estate more difficult for potential farm owners.

Compared with its earning capacity, the market price of average and below-average farm land is generally well above that of good land. Therefore, large loans relative to selling price on these properties tend to magnify the problem on land that is already overpriced. The perennial problem in farm mortgage lending continues to be the lack of sufficient differentiation between good and poor land, even though this condition has been substantially improved. If any risk exists at all on farm mortgage loans outstanding, is it not on the below-average farms on which relatively large farm mortgage loans may have been placed?

The mortgage lending situation is now almost the reverse of the situation during World War I. First and second mortgages for a high percentage of the sale price, written on short-term, unamortized notes, were common around this war period. As of 1960, there were conservative lending ratios and partially or completely amortized loans for terms of 15 to 35 years. The lending policy is fairly adequate and possibly economically sound during periods of rapidly rising land values and high farm incomes such as were experienced during the 1940's.

However, during periods of lower farm income and relatively stable land values, such as may be experienced in the 1960's, conservative lending ratios could be a formidable barrier to the transfer of farms from one individual to another. Such situations bring strong pressure for lower equity farm mortgage loans at a time when repayment capacity is much reduced.

After re-examining the many farm mortgage experience studies available and comparing lending practices in agriculture with lending practices in other industries, one must point up the real danger of rising land values from a low-equity loan program and to almost assured

foreclosures and ensuing losses in periods of agriculture recession. In addition, farms in better land classes are capable of carrying higher debts relative to fair market price than those in poorer land classes. Only higher debt to value ratios on good relative to poor land can tend to equalize foreclosure and loss rates on different types of land and assist the potential buyer in recognizing and better pricing land of different classes.

If commercial farm mortgage lenders are interested in forestalling further competition in the farm mortgage market, is it not logical to assume that they will have to reappraise their loan to value ratios and, in so doing, become increasingly careful of amounts loaned on property of different grades within geographic areas? This author agrees with Tootell's statement in Chapter 17 that further experimentation with the open-end mortgage is needed, and a careful examination of the merits of partial versus full amortization is desirable.

### FINANCING MODERN COMMERCIAL AGRICULTURE

Historically, agriculture has been notorious for its fragmentary financing pattern. Until relatively recently, much of the financing has been done on a commodity basis. Even in 1960 it was not uncommon for lending institutions to approach the farmer's credit needs from the standpoint of financing feeder cattle, dairy, cotton, farm machinery, broilers, or tung nuts. The nature of agricultural operations is such that the commodity financing approach is not adequate. Likewise, piecemeal financing, enterprise by enterprise, is not a sound credit arrangement.

The merchant is still an important source of credit, but commercial lenders have materially reduced the proportion merchants have to carry. For example, the farm machinery industry has made a notable shift from manufacturer and dealer financing to commercial lender financing since 1940. Although manufacturers carried farmers' notes equal to nearly one-half of their equipment sales throughout the 1930's, practically all of this was shifted to commercial lenders in the 1940's. In 1960 manufacturers financed more of their sales once again as a matter of sales policy.

The bulk of the country's commercial broiler industry is being financed by the feed manufacturers and dealers (cf. Chapter 8). This industry is in about the same position the farm machinery industry was in the 1930's.<sup>4</sup> Since the broiler industry is a relatively new, highly specialized operation, the conventional lending institutions have hesitated to play a more direct part in its development. However, with few exceptions, commercial lenders have had experience with this type of production and would be able to supply much of the specialized credit

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<sup>4</sup> H. G. Diesslin, *Agricultural Equipment Financing*, Nat. Bur. Econ. Res., Occasional Paper No. 50, 1955.

needed. Sales policy of suppliers would need to change substantially before the industry could become attractive to the banker at producer level, however.

The historical commodity financing approach has given rise to specialized lending institutions which can finance part, but not all, of the farmer's operation. These institutions were developed in a time of critical need and were justified. However, with increasing size and commercialization of agriculture, we have reached the point where a lending institution must be in a position to finance or to arrange financing of the entire farming operation rather than just a portion of it.

Specialized lending institutions which can finance only part of the farming operation are at a competitive disadvantage in the agricultural lending picture. There are many disadvantages to financing a farm operation through several institutions, and this situation generally results in more limited availability of credit than the farm operation warrants.

### Developing a Balanced Credit Program

More emphasis is needed on a balanced credit program for the individual farm. Hopkin offers related comments in Chapter 16. There is a real need for package credit to cover the entire farming operation. It can be provided best in financing the farm as a single unit of operation, and not by breaking it down into short-, intermediate-, and long-term segments.

In financing the farming operation, for example, long-term credit should be used under the following conditions: (1) when credit is needed continuously over a period of years; and (2) when there is a possibility that changing economic (or other) conditions will extend the length of time the credit is needed. It is not important whether this credit is used for a long-term investment or for a series of short-term investments. The important consideration is that credit will be needed over a long period of time.

Even in the case of substantial improvement programs, which are generally classified under intermediate-term credit, certain rules can be followed. As much long-term credit as possible should be used to finance such programs with the following limitations: (1) the amount probably should not exceed the average amount of credit needed over the first several years of the improvement program; (2) amortization should be extended over a fairly long period—maybe as long as 10 to 20 years in some cases—so that repayments will be low; (3) provision should be made for a flexible repayment program—advance or deferred annual payments and a complete repayment option after a few years without penalty. Short-term credit should be used to take care of all seasonal fluctuations in credit needs and to provide, for the improvement program, additional credit which cannot be provided through the use of a real estate mortgage.

This suggests that some method needs to be devised for making

available to the farm landowner an open line of credit, using his real estate as collateral security. Expanded use of open-end mortgages on farm real estate would more nearly give the farm operator the open-line of credit needed to finance the whole farming operation. The open-end mortgage materially reduces the cost of new loans because a new appraisal, title search, and the like are unnecessary. More and more, commercial lending agencies are experimenting with this type of mortgage loan where state laws permit their use.

### Reappraising Partial Amortization

Since World War I agriculture has experienced a shift from short-term nonamortized farm real estate loans to long-term, fully amortized farm real estate loans. Certainly this procedure is much sounder than earlier policies. Some lending institutions write fully amortized loans almost exclusively. Has the American farmer been oversold on fully amortized real estate loans?

Is there not a need and justification for perpetual indebtedness on some of our farms? Certainly it would be unwise to recommend permanent indebtedness on a high percentage of the farms in this country. But is there any reason why the farm mortgage debt should ever be totally repaid on a high-quality 200-acre commercial Corn Belt farm at a 1960 worth of \$450 an acre? Is there any reason to reduce the indebtedness below one-fourth or one-third of the current market value? If the owner borrowed \$200 per acre on this farm initially, is there any reason why more than \$100 per acre should be included in the amortization schedule?

For example, if this is a twenty-year mortgage, the \$200 loan per acre could be amortized at the rate of 3 to 5 percent per year until reduced to \$100 per acre. At that point, only interest payments on the outstanding balance would be required with optional principal payments.

From a personal standpoint, an individual farmer may want to pay off the loan, but from a strictly business standpoint, perpetual indebtedness would be justified and profitable except possibly in a period of deep depression such as was experienced in the early 1930's. The lender has a riskless loan that yields higher returns than many other alternatives, and the permanent investment reduces administrative costs on the loan portfolio. The borrower can generally earn more than the interest cost of the loan, and the earnings that would have been used to amortize the loan can be used to maintain or to improve production efficiency.

### Risk Capital—Other Considerations

With the rapid technological progress in agriculture, aggressive agricultural lenders may well use a small percentage of their loan

portfolio to encourage the adoption of this new technology. In addition, this risk capital can be used to assist young farmers who cannot qualify under normal equity requirements, but who have managerial capacity and a farm available. Such new technologies would include supplemental irrigation, less expensive and more flexible farm buildings, expanded application of nitrogen fertilizers, and the like.

Many such loans can be adequately protected through insurance. The use of credit insurance is becoming increasingly common and is certainly helpful in reducing the risk or loss on a loan—particularly with respect to young operators getting started.

In addition to credit insurance, life insurance, crop insurance, and other similar devices, price-support programs have also reduced the over-all credit risk in agricultural lending. These programs, plus the continued application of new technologies which make possible greater output and increased earnings per man, have all tended to reduce loan risk on the average and above-average commercial operations. At the same time, they have widened the gap between the below- and above-average operators. As a result of this situation, the personal characteristics and managerial ability of the operator play a much greater role in determining the credit risk of the individual farm operator.

#### Role of Credit Institutions

American agriculture is serviced by a comprehensive set of credit institutions. In addition, individuals play a dominant role in financing the farm real estate market. Individuals selling farm property always have the first opportunity to finance the sale. This becomes the major means of investment for retiring farm owners. Therefore, they have always been large holders of farm mortgage indebtedness. In addition, the rapid increase in use of the land contract sale to minimize income taxes tends to keep much of the long-term debt in the hands of individuals. Insurance companies and insured banks have increased their relative holdings of the mortgage debt at the expense of the Federal Land Banks since 1940 (Table 13.2). The land banks have increased their holdings to some extent since 1950.

Commercial banks continue to hold over two-thirds of the nonreal estate credit among institutional lenders. PCA's have nearly doubled their relative holdings since 1940, while the Farmers Home Administration's holdings have materially decreased. No reliable estimates of individual holdings of this type of indebtedness are available.

The nature of credit institutions is such that they finance only part of the farming operations—real estate or nonreal estate assets. Commercial banks can finance the entire farming operation, although their assets are not particularly well adapted to farm real estate mortgage loans. As a result of the increasing financial complexity of the farming operation, it becomes increasingly imperative that long-term and short-term lenders coordinate their lending programs to individual

Table 13.2. Distribution of Debt Outstanding by Lenders,  
January 1, 1940, 1950, and 1960

	1940	1950	1960 <sup>a</sup>
Mortgage debt (percent)			
Federal Land Banks	30.5	16.3	19.0
Insurance companies	15.0	21.0	23.0
Insured banks	8.1	16.8	13.2
Individuals and miscellaneous	46.4	45.9	44.8
Nonreal estate (percent)			
Commercial banks	69.5	75.8	73.3
PCA's	11.8	14.3	20.7
FHA	18.7	9.9	6.0

Source: Data supplied by Agricultural Finance Research  
Branch, FERD, ARS, USDA.

<sup>a</sup> Preliminary.

farmers—e.g., commercial banks, insurance companies, PCA's, and FLB's. The competitive element in agricultural lending is such, especially in commercial sectors of the industry, that agriculture's financial needs currently are serviced as efficiently as other sectors of the economy. Any concerted effort to provide additional subsidized credit (either low equity financing or interest rates below market levels) would encourage existing private lending institutions to leave the farm financial market.

Even under existing competitive conditions in the farm credit market, some private lenders are re-evaluating their agricultural holdings. For example, how long will insurance companies aggressively compete for a limited number of farm real estate mortgages in the commercial farming areas as they have done since 1940? As the economy continues to grow, a smaller and smaller portion of their investment portfolio is in the agricultural sector. A specialized staff is necessary to solicit and to appraise the potential investment. Farm loans are small relative to some other types of investment. The cost of obtaining the investment is high relative to other investments, particularly where a specialized staff making farm loans only is maintained. Farms are not concentrated like urban homes. In addition, the life insurance company can finance only the farm real estate, not the entire farming operation. This latter situation is not unique to insurance companies, of course; it is equally true of the Federal Land Banks. Even so, it will not be too surprising if as many as one-half of the 15 or 20 major insurance companies making farm mortgage loans gradually drop out of the market during the 1960's or 1970's. It would be a serious financial blow to American agriculture, however, if all major insurance companies pulled out of the farm mortgage market. They are an extremely important competitive element in the farm market as well as a large supplier of the total credit needs.