

Farm Lending Practices and Services Provided for Missouri Farmers by Selected Credit Sources



David L. Heisterberg and James B. Kliebenstein

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**University of Missouri-Columbia
Agricultural Experiment Station**

*David L. Heisterberg, Extension Farm Management Specialist, University of Kentucky, and James B. Kliebenstein, Assistant Professor, University of Missouri-Columbia.

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The Changing Scene in Agricultural Credit

Agriculture is in a continual process of change. This process of transformation has taken U.S. agriculture from one of primarily self-subsistence to the present day highly commercialized and capital-intensive agriculture where a farmer produces enough food for many people.

This transformation to a more technical agriculture has led to:

1. increases in capital and credit needs;
2. purchased inputs making up a relatively larger proportion of total inputs;
3. a greater demand for production and marketing efficiency;
4. an increasing rate of resource and human obsolescence;
5. rapid advances in technology;
6. increased specialization;
7. declining numbers of farmers;
8. larger farms;
9. increases in total agricultural output;
10. changing input mixes;
11. increased competition from synthetic products; and
12. a need for more sophisticated management.

The Balance Sheet of Farming

Assets

From 1945 to 1976, total U.S. farm investment has increased at about one-half the rate of the per-farm investments—528 and 1340 percent respectively.¹ Per farm, this represents a change of \$15,800 to \$211,700 during the 31-year period. Investment per farm approximately doubled every decade as shown below.

¹U.S. Dept. of Agriculture, "Agricultural Statistics," 1950, 1960, 1970, 1974 and "Balance Sheet of the Farming Sector," Agri. Information Bul. #389, ERS-USDA, April 1976. As defined by the 1969 Census of Agri. a place was classified as a farm if it contained 10 acres or more and had an estimated value of \$50 or more for total products sold (TVP) based on the values reported for sales of various groupings of crops or other products sold. If the place had less than 10 acres it was counted as a farm if it had an estimated TVP of \$250 or more.

Year	Total U.S. Farm Invest. (\$BILLION)	Per Farm Invest. (\$THOUSAND)
1945	94.0	15.8
1950	132.5	23.4
1955	165.1	35.5
1960	204.0	51.5
1965	237.2	70.9
1970	306.1	103.6
1971	314.7	106.5
1972	338.9	116.5
1973	385.6	134.4
1974	477.2	167.8
1975	519.9	185.2
1976	589.8	211.7

To the established farmer who does not plan to expand, this increase in capital investment means one thing; to the beginning farmer it means another. For the established person, it represents appreciation in value of existing assets—to the beginner, it represents additional dollars needed to start farming.

The distribution of farm assets per farm is shown by asset type in Tables 1 and 2 for the U.S. and Table 3 shows relative shifts occurring between asset types. As a percent of total assets, real estate is by far the dominant type representing 71 percent of all assets invested in an average farm in 1976. Real estate's relative importance has been increasing over time. Investment in machinery and motor vehicles as a percent of total assets has also been increasing. The relative importance of livestock, stored crops, household furnishings and deposits and currency has been decreasing.

Liabilities

The amount of farm debt outstanding has been increasing over time (Table 1). In 1940 total outstanding farm debt was \$10 billion, compared to \$24.8 billion in 1960 and a projected \$90.7 billion in 1976. With this ever increasing demand for agricultural credit, the question of who is and who will be supplying credit to agriculture is extremely important. A question of even greater significance is who will supply credit to a low-equity individual so that an efficient operating unit can be established.

In 1976, individuals were the most important source of real estate credit (Table 4). They supplied 36.7 percent of all farm real estate loans, however this was somewhat less than the 45.9 percent they supplied in 1940. Federal Land Banks have had a marked increase in relative importance in real estate loans since the 1950s. Also since the 1950s, the Farmer's Home Administration (FmHA) increased its relative share while life insurance companies were decreasing in relative importance and commercial banks were decreasing slightly. Since the early 1920s, the FmHA also has decreased in relative importance.

Table 1. Balance Sheet of Farming Sector, January 1, Selected Years, 1940-1976 (In Billions of Dollars)

Item	1940	1950	1960 ¹	1970 ¹	1975 ¹	1976 ^{1 2}
ASSETS						
Physical assets:						
Real estate	\$33.6	\$ 75.3	\$130.6	\$206.9	\$371.1	\$422.3
Nonreal estate:						
Livestock & poul.	5.1	12.9	15.3	23.5	24.6	29.5
Mach. & motor veh.	3.1	12.2	22.7	32.3	55.8	69.0
Crops stored on & off farms ³	2.7	7.6	7.7	10.9	23.2	20.7
Household equip. & furnishings	4.2	8.6	9.6	9.7	15.4	17.0
Total	52.9	132.5	204.0	306.1	519.9	589.8
CLAIMS						
Liabilities						
Real estate debt	6.6	5.6	12.0	29.2	46.3	51.9
Nonreal estate debt						
excluding CCC loans	3.0	5.1	11.6	21.1	35.2	38.4
CCC loans ⁴	.4	1.7	1.2	2.7	.3	.4
Total liabilities	10.0	12.4	24.8	53.0	81.8	90.7
Proprietors equit.	42.9	120.1	179.2	243.1	438.1	499.1
Total	52.9	132.5	204.0	306.1	519.9	589.8

¹Includes Alaska and Hawaii. ²Preliminary. ³All crops held on farms including crops under loan to CCC, and crops held off farms as security for CCC loans. On Jan 1, 1976 the later totaled \$163 million. ⁴Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in this balance sheet.

Source: USDA "Balance Sheet of the Farming Sector," Supplement No. 1, Agriculture Information Bulletin No. 389, ERS, April, 1976.

**Table 2. Balance sheet of the farming sector: Average per farm, current prices,
January 1 selected years 1940-1976¹**

Item	1940	1945	1950	1955	1960 ²	1965 ²	1970 ²	1975 ²	1976 ^{2,3}
Physical assets:									
Real estate	\$5,297	\$ 9,030	\$13,324	\$21,094	\$32,945	\$48,112	\$ 70,026	\$132,145	\$151,580
Nonreal estate:									
Livestock & Poultry	808	1,510	2,283	2,409	3,848	4,319	7,948	8,750	10,592
Mach. & motor vech.	482	1,085	2,154	3,994	5,739	7,398	10,934	19,868	24,767
Crops stored on & off farms ⁴	420	1,120	1,344	2,073	1,952	2,743	3,697	8,260	7,430
Household equip. & furnishings	663	936	1,514	2,157	2,419	2,569	3,295	5,494	6,102
Financial assets:									
Deposits & currency	510	1,325	1,607	2,025	2,313	2,854	4,025	5,363	5,500
U.S. savings bonds	39	566	836	1,068	1,177	1,253	1,266	1,542	1,570
Invest. in co-ops	131	204	364	668	1,071	1,667	2,438	3,744	4,146
Total	8,350	15,776	23,436	35,479	51,464	915	103,629	185,166	211,687
CLAIMS									
Liabilities:									
Real estate debt	1,037	828	988	1,772	3,049	5,630	5,879	16,484	18,629

Table 2. Continued

Item	1940	1945	1950	1955	1960 ²	1965 ²	1970 ²	1975 ²	1976 ^{2,3}
Nonreal estate debt: excluding CCC loans	473	456	912	1,546	2,909	4,876	7,166	12,5r5	13,783
CCC loans ⁵	70	114	305	477	294	460	906	114	128
Total liabilities	1,580	1,398	2,205	3,795	6,252	10,966	17,951	29,143	32,540
Proprietors' equit.	6,770	14,378	21,231	31,684	45,212	59,949	85,678	156,023	179,147
Total	8,350	15,776	23,436	35,479	51,464	70,915	103,629	185,166	211,687
Debt-to-asset ratio	18.9	8.9	9.4	10.7	12.2	15.5	17.3	15.7	15.4

¹Total values divided by total number of farms. ²Includes Alaska and Hawaii. ³Preliminary ⁴All crops held on farms including crops under loan to CCC, and crops held off farms as security for CCC loans. ⁵Nonrecourse CCC loans secured by crops owned by farmers. These crops are included as assets in this balance sheet.

Source: USDA "Balance Sheet of the Farming Sector," Supplement No. 1, Agriculture Information Bulletin No. 389, ERS, April 1976.

**Table 4. Outstanding Farm Real Estate Debt, January 1
(Amounts in Millions of Dollars)**

Year	Commercial Banks	FLB	Insur. Company	FHA	Individuals and Others
1940	\$ 534	\$ 2010	\$ 984	\$ 32	\$ 3026
1945	450	1210	938	196	2147
1950	932	906	1172	202	2367
1955	1161	1267	2052	378	3387
1960	1523	2335	2820	676	4728
1965	2417	3687	4288	1285	7218
1970	3345	6671	5734	2280	10953
1975	3345	6671	5734	2280	10953
1975	5966	13402	6297	3215	17408
1976	6296	15950	6726	3369	18728

----- percentage of total loans -----					
1940	8.1	30.5	14.9	0.5	45.9
1945	9.1	24.5	19.0	4.0	43.4
1950	16.7	16.2	21.0	3.6	42.5
1955	14.1	15.4	24.9	4.6	41.1
1960	12.6	19.3	23.3	5.6	39.1
1965	12.8	19.5	22.7	6.8	38.2
1970	12.1	22.9	19.6	7.8	37.5
1975	12.9	29.0	13.6	6.9	37.6
1976	12.3	31.2	13.2	6.6	36.7

Source: Agricultural Finance Databook, Board of Governors of the Federal Reserve System, September, 1976.

Currently, commercial banks are the largest farm non-real estate lenders (Table 5). In 1976, they accounted for 51 percent of the market, up from 26 percent in 1940. Non-real estate debt is normally used to finance livestock, machinery, household needs, motor vehicles, and operating needs. Production Credit Associations increased their relative share from 14 percent to slightly more than 27 percent during the time period 1940-1976, a rather substantial climb. Individuals, by far the most important non-real estate credit lenders in 1945, dropped to number three in 1976, holding 16 percent of the credit the latter year. The Farmers Home Administration reduced its relative share from 12 percent to 4.5 percent even though its absolute volume more than doubled. The Commodity Credit Corporation (CCC) went from a major credit supplier in the 1950s to become almost non-existent by 1976. Based upon these observations, substantial shifts in the major suppliers of farm non-real estate credit have occurred since the 1940s and 1950s.

Farm non-real estate debt increased at about a 7½ percent annual rate between 1960 and 1968 and approximately a 12 percent annual rate between 1968 and 1976. During the same time period, farm non-real

**Table 5. Outstanding Farm Non-Real-Estate Debt, January 1
Percentage of Total (including CCC Loans)
(in millions of dollars)**

Year	CCC Loans	Commercial Banks	PCA	FICB	FHA	Individuals and Others
1940	\$ 445	\$ 900	\$ 153	\$ 32	\$ 418	\$1500
1945	683	949	188	30	453	1110
1950	1721	2049	387	51	347	2320
1955	2219	2934	577	58	417	3210
1960	1165	4819	1361	90	398	4860
1965	1543	6990	2278	125	644	6330
1970	2679	10330	4495	218	785	5340
1975	319	18238	9519	374	1044	6050
1976	358	20160	10773	350	1772	6350

-----Percentage of Total Loans-----						
1940	12.9	26.1	4.4	0.9	12.1	43.5
1945	20.1	27.9	5.5	0.9	13.3	32.3
1950	25.0	29.8	5.6	0.7	5.0	33.7
1955	23.6	31.2	6.1	0.6	4.4	34.1
1960	9.2	38.0	10.7	0.7	3.1	38.3
1965	8.6	39.0	12.7	0.7	3.6	35.3
1970	11.2	43.3	18.9	0.9	3.3	22.4
1975	0.9	51.3	26.8	1.1	2.9	17.0
1976	0.9	50.7	27.1	0.9	4.5	16.0

estate assets have been increasing at an average annual growth rate of only about 2½ percent. Also, during this period average farm non-real estate loan sizes have increased by more than 25 percent [6].

Changing Input-Output Relationships

Over time, agriculture has been shifting from labor-intensive production techniques towards capital-intensive production techniques (Table 6). Farmers in general have been innovators. Mechanization through the use of tractors, harvesting equipment, tillage equipment, etc., along with more fertilizer and chemical utilization, has substantially increased production capacity. For example, from 1960 to 1975, farm output per unit of input increased 20 percent.

Prior to World War II, horses and mules fed with home grown grain and forages were the main power source. During that time the main source of fertilizer was animal manure and an abundant supply of family labor was available. Under these conditions, a farmer's cash production expenses were relatively low. However, with the adoption of new innovations, cash production expenses have increased greatly. In the nine-year period from 1965-1973, production expenses increased almost

**Table 6. Use of Selected Farm Inputs, 1950-75
(1960=100)**

Year	Labor	Farm Real Estate	Mechanical Power and Machinery	Agri. Chemicals	All Other Inputs	Fertilizer & Liming Materials
1950	149	106	88	NA	81	59
1955	127	106	101	NA	89	83
1960	100	100	100	100	100	100
1965	75	99	97	154	109	147
1970	62	97	102	221	120	209
1973	59	93	105	261	118	230
1974	57	93	105	274	115	249
1975	56	93	107	253	111	234
1976*	56	94	106	272	113	NA

Source: 1976 Handbook of Agricultural Charts, p. 11.

*Preliminary

NA = Not Available

100 percent from \$33.5 billion to \$64.7 billion, respectively. These shifts have tended to increase steadily the amount of capital needed and managed by farm operators, both beginning and established farmers. In many cases, these increased production expenses must be financed by borrowed funds.

The Future Outlook for Agricultural Credit

Future demand for agriculture credit will be influenced by a number of variables. Some of the more important ones are crop and livestock output levels, farm prices, production expenses, farm export levels, and interest rates.

Farm real estate asset values, non real estate assets and financial assets held by farmers have all increased over time. From 1971 to 1976, a rather substantial increase in real estate and non real estate assets per farm has occurred. This is reflected in the spiraling amount of capital needed to establish an efficient farming operation, to meet debt payments, and to support a family.

Brake has projected that for the period 1970-1985, real estate debts will increase 5.3 percent compounded per year, and non real estate debt will increase 5.7 percent compounded per year.^[1] While this represents a sizeable increase in farm debt; it is at a somewhat slower rate of increase than what has been experienced over the past 10 years.

With this increase in credit demand, more information on the source and type of agricultural credit is needed. Conditions have been changing rapidly and current data are needed as criteria for making financial decisions. This includes information on acquiring credit as well as the proper use of it.

If the presumption that entry of new farmers is the life-blood of agriculture it is logically accepted that farming needs a certain number of young men to become established. There has always been, and still is, an ample supply of young men who desire to start farming. These new and in many cases younger farmers are more willing to try new innovations and to change technologies.

Presently, acquisition of sufficient capital is one of the most limiting factors in establishing a farming operation large enough to meet principal payments and pay family living expenses. In addition, since risks and uncertainties vary directly with the volume of capital, it makes financial management for the beginning farmer all the more important.

Some factors thought to be influential in determining the ability of beginning farmers to acquire sufficient capital to become established in farming include the following [2, 3]:

1. lending institution policies
2. borrower credit plans
3. experiences of the applicant
4. available collateral
5. applicant's financial position
6. projected repayment ability
7. loan purpose
8. general farming conditions and land availability

The primary focus of this study is to enumerate lending policies and services provided for beginning farmers by commercial banks, Production Credit Associations, Federal Land Banks, and the Farmer's Home Administration.

The Survey Technique

For this study, commercial banks, Production Credit Associations (PCAs), Federal Land Banks (FLBs), and the Farmer's Home Administration (FmHA) servicing the Mid-Missouri Planning Area were surveyed. Commercial banks were surveyed through use of a mail questionnaire.² Of the forty-one commercial banks surveyed, thirty-five returns which were useable were received. Because of the small number involved, PCAs, FLBs, and the FmHA were surveyed through a personal interview. Representatives from these institutions were asked to respond to the same basic questionnaire as those responding on the mail survey.

Central Missouri was selected as the study area because it is a general farming area where the economy is primarily dependent upon agriculture, thus lessening major metropolitan area influence. The area represents a number of different farm types ranging from general diversified farming operations to highly specialized cash grain or livestock production farms.

²For an example of the survey see Heisterberg [4].

Survey Results

Commercial Banks

Of the banks returning usable questionnaires, all reported they had received loan requests from beginning farmers. Of those banks 54 percent made real estate loans, 84 percent machinery and livestock loans, and 80 percent operating loans to beginning farmers. Only eight percent of the reporting banks indicated a negative attitude toward making any loans to beginning farmers.

Bank or bank's respondents were asked to identify factors they considered necessary in making beginning farmer loan application analyses. A summary of those factors, along with a tabulation of the percent of banks indicating that the factors were necessary or desirable, are presented in Table 7 by loan type. Loan types are real estate, machinery, livestock, and operating.

Table 7. Credit Factor Importance for Real Estate, Machinery, Livestock, and Operating Loans to Beginning Farmers from the Sample Commercial Banks

Credit Factor	Real Estate		Machinery		Livestock		Operating	
	Nec. ¹	Des. ²	Nec.	Des.	Nec.	Des.	Nec.	Des.
	----- Percent ³ -----							
Collateral	96	4	96	0	88	4	80	12
Projected Repayment Ability	84	16	80	20	76	20	76	20
Balance Sheet Data	68	12	60	20	64	20	64	20
Reputation and Family History	44	44	44	44	44	44	44	44
Education	12	64	12	64	12	64	12	64
Long Range Plans and Goals	44	40	24	56	28	48	28	52
Personal Farm Visit	4	16	4	16	4	16	4	16

¹Necessary

²Desirable

³Due to elimination of the "not necessary" column from the table the percentages may not sum to 100.

Collateral was given most often as a necessary criterion for making loans to beginning farmers for all loan types. In addition, there was little indication of a relief from this capital barrier that confronts beginning low-equity farmers seeking credit from commercial banks. However,

collateral was cited less often as being necessary for operating loans than for the other three loan types.

Projected repayment ability was listed by at least three out of four bankers as being necessary for all loan types. Again, this was more important for real estate than for operating loans. Balance sheet data were listed as necessary loan conditions by at least six out of ten respondents while reputation and family history was necessary in obtaining a loan at about one-half of the banks. Long-range plans and goals were cited as necessary for real estate loans by 44 percent of the respondents while, not unexpectedly, it was relatively less important for the other loan types. Four percent of the respondents considered a personal visit to the farm necessary and 16 percent considered it desirable when making a loan.

Substantial variations in equity requirements were observed among commercial banks. This variation, in many cases, related closely to individual borrower characteristics. The most frequently reported percent loaned was 71-80 for real estate, machinery, and cattle, and 91-100 for operating funds (Table 8). No banks would lend more than 80 percent of real estate values nor more than 90 percent of machinery values. Thus, equity requirements of many banks would eliminate them as a source of funds for low-equity farmers.

Table 8. Percent of Asset Value Loaned by the Sample Commercial Banks for Real Estate, Machinery, Livestock, and Operating Loans to Beginning Farmers

Percent of Asset Value Loaned	Real Estate	Machinery	Livestock	Operating
	Percent			
50 or less	13	10	12	—
51-60	13	10	4	19
61-70	27	25	24	19
71-80	47	40	32	12
81-90	—	15	12	6
91-100	—	—	16	44

For length of loan repayment time, there appeared to be some uniformity among the respondents. The repayment period for real estate loans was 10 or more years in all but 14 percent of the replies. Machinery usually was financed for 3 to 4 years with several banks extending loans as long as 6 years. All operating loans were set up on a repayment schedule of 2 years or less with the majority being less than one year. There was slightly more diversity in livestock loans where 64 percent had repayment periods of less than two years, the longest being six years. Much of this variability was tied to the type of livestock purchased.

In all cases, respondents indicated that loan limits are usually dictated by an individual borrower's financial position and characteristics. Also, only eight percent of the banks surveyed had established policies where upper lending limits were less than their legal lending limits. For most low-equity individuals, financial position would be more of a hurdle than the legal lending limits.

With farming becoming more complex and sophisticated, farmers are in constant need of more and better services. Many of these services which lending institutions may be in a good position to offer could be beneficial to the lenders as well as the borrower. However, services provided to borrowers were limited in the study area. Services most often provided were management consultation, estate management, and retirement planning (Table 9). Yet less than 40 percent of the banks provided management consulting and about one-fourth assisted with estate management and retirement planning.

Table 9. Services Provided by the Sample Commercial Banks

Service	Now Provided	Planned for the Future
	----- percent -----	
Management Consulting	38	58
Record Keeping	5	30
Tax Management	5	10
Estate Mgmt Planning	24	45
On Farm Counseling	—	40
Record Analysis	—	25
Cash Flow Projections	—	60
Budgeting Annual	—	30
Retirement Planning	28	40

It is interesting to note that although none of the respondents indicated present provisions for providing cash-flow projections, 60 percent indicated they are planned for the future. Other significant changes planned for the future are on-farm counseling, record keeping, record analysis, and budgeting services. Services of this nature would be beneficial for beginning farmers as well as established farmers and also would help in keeping commercial banks competitive in the agricultural credit market.

Major problems encountered in agricultural lending are enumerated in Table 10. Respondents indicated that the more important problems were unstable markets for farm products, a lack of knowledge and planning of cash flows, prices of farm supplies, and unpredictable weather conditions.

A major portion (78 percent) of the banks surveyed did not expect to increase their 1980 agricultural credit volume by more than half again

Table 10. Major Lending Problems of Commercial Banks

Problem	Percent of Banks Considering it a Problem
Unstable markets for farm products	68
Lack of knowledge and planning of cash flow	44
Prices of farm supplies	32
Unpredictable weather conditions	24
Credit needs to large in relation to repayment ability	12
Poor record keeping	8
Farmers buy unneeded items instead of paying on loan	8

what it was in 1975.³ During the previous five year period (1970-1975), total agricultural loan volume by commercial banks increased by 75 percent [5]. In addition, during this five year time period commercial banks increased their real estate debt market share from 12.2 to 12.9 percent and their non-real estate credit market share from 43.3 to 51.3 percent.

Of those banks expecting more than a 50 percent increase in total agricultural loan volume, two thirds expected at least a doubling in agricultural credit volume from 1975 to 1980 (annual increase of 15 percent). Interestingly, only one bank respondent planned on actively seeking new customers as a method of expanding agricultural loan volume.

Federal Land Banks

Federal Land Banks have been increasing the number of new loans as well as total loan volume over time and are expecting to continue doing so in the future (Table 4).

Federal Land Banks deal primarily in real estate loans with some rural home loans being made. They evaluate the following five items as major credit factors when analyzing qualifications of a loan applicant:

1. the individual
2. financial position and progress
3. repayment capacity
4. basis of approval - purpose
5. collateral

All loans are for five years or longer, with the usual farmland purchase being made for 20-35 years—forty years being the maximum loan period.

³A 50 percent increase in 5 years is an approximate annual increase of 8.5 percent. Assuming the increase in land, buildings, machinery, fertilizer, fuel, etc., costs increase at an annual rate greater than 8.5 percent, the agricultural credit volume for these banks in real dollars would be less in 1980 than in 1975.

Presently, all FLB loans carry a variable interest rate. For a lender, the variable interest rate can substantially lessen the problem of building inflationary impacts into a long term loan rate. For a borrower the variable interest rates can result in a lower initial rate. This would be especially so when interest rates are rising.

Federal Land Banks are allowed by the 1971 Farm Credit Act to lend up to 85 percent of an assets value. However, the St. Louis Bank recommends a limit of 80 percent with most loans not going beyond the 75 percent level unless the loan seems unusually sound. No upper limit is established for the total amount borrowed provided the borrower meets the qualifications for getting the loan.

After a loan is made, Federal Land Banks do not make a practice of supervising the loan and the farming operation but they do advise that the farmer have a good farm plan drawn up prior to applying for a loan.

The only problem, although not yet a major one, suggested by FLB respondents was that a farmer's income is highly variable which means at times it is insufficient to cover all commitments.

The Federal Land Bank has a deferred principal payment plan available for beginning farmers. Under this plan, a young farmer makes only interest payments the first few years of the loan. This can in effect allow the farmer to become better established before principal payments begin. However, with a 30-year loan principal, payments the first few years of the loan are relatively small.

The FLB can make participating loans with the Farmer's Home Administration. In many cases, this would be beneficial to a beginning farmer, allowing him access to a larger percent of the credit needed. It is possible, through a participating loan, for the farmer to borrow 100 percent of an asset's appraised value. With this arrangement, the agencies participating in the loan share the risk involved in supplying a farmer with capital needed.

Production Credit Associations

During the period 1971-1975, Missouri PCA's increased their loan volume by almost 50 percent. They primarily make operating and/or short and intermediate term loans. PCA's look at the following credit factors when determining loan acceptability: the individual; financial position or progress; repayment capacity; basis of approval; and collateral. Collateral taken is usually crops, machinery, livestock, and/or feed.

Under present regulations, PCA's are allowed to make loans with terms up to seven years, but, the majority have a shorter term than this. PCA's can lend up to 100 percent of the farmer's needs for operating capital and will usually do so if the farmer can meet the basic credit factors.

In many cases, PCA's provide a line-of-credit financing plan. Under this system, seasonal and annual credit needs are determined in advance with the borrower drawing the money when needed and with interest paid only for the time the money is used.

Because a large percent of PCA loans are operating loans made on an annual or shorter basis, close contacts are usually established with the

farmer and the operation. To aid the farmer further, PCA has started a computerized farm record keeping system which is available for a minimal fee. This service provides monthly printouts, a 10-month printout, and an annual report. The ten-month report is very convenient for tax planning. In addition, some tax management suggestions are provided with this service.

Being oversold on a farmer's management ability was listed by PCA respondents as one problem encountered when making agricultural loans. The respondents suggested that more emphasis will need to be placed on the management factor when evaluating future loan applicants. A farmer may be a good manager of a 20-sow operation, but a 50-sow unit may be beyond his capabilities. However, the problem of measuring managerial ability was recognized as being a value judgment and often difficult to make.

Other problems listed were the uncertain weather conditions, uncertain general economic conditions, and a failure to project accurately the longterm cash flow of a borrower.

PCA's also are allowed to make participating loans with commercial banks. This can be beneficial to those farmers whose credit needs exceed the lending limits of commercial banks which provide financing. A PCA in conjunction with the commercial banks will most likely be able to supply necessary credit to the farmer.

One program PCA is now approaching on a trial basis is an equipment leasing program. This can be an extremely beneficial service to farmers with limited capital. The Farm Credit Act of 1971 authorizes this program and has placed a \$50,000 limit on machinery investment. Presently Brookfield is the only Missouri PCA doing much leasing. It is experimenting with speciality hay-making equipment and some types of land levelers and dirt movers. These are machines where cost is often very high relative to the amount of time utilized per year. Provided the farmer can obtain use of the machine when needed, leasing is a way of obtaining machinery capacity without tying the farmer's capital up in fixed assets.

Brookfield's machine leasing operation is based upon two primary objectives, the first is to cover operating costs and depreciation, and the second is to provide a valuable and needed service for their borrowers. To date, only two problems have been encountered with the Brookfield PCA machinery rental arrangement. One is that the \$50,000 limit on the machinery investment is too low given present-day machinery prices. The other problem is that manpower needed to operate the leasing program is often a full-time job.

The Farmer's Home Administration

FmHA offices have several types of loans to offer with farm ownership and/or farm operating loans the primary agricultural ones. Farm ownership loans can be used to buy land; to construct, repair or improve buildings; to improve farmland; to develop water facilities; and to re-finance any of the above type debts. Farm operating loans can be used for purchasing livestock, equipment, feed, seed, supplies for farm and home operations, and for refinancing or paying interest on operating

debts. FmHA is allowed to lend 100 percent of the appraised agricultural value of real estate and 100 percent of operating capital needs. However, to obtain this level of financing the applicant needs to have a strong credit history and agricultural background.

FmHA gives priority to helping young men get established in farming. The major purposes of FHA's rural credit programs include:

1. To help build the family farm system, the economic and social base of many rural communities;
2. To expand business and industry, increase income and employment, and either control or abate pollution;
3. To install water and waste disposal systems and other community facilities that will help rural areas upgrade the quality of living and promote economic development and growth; and,
4. To provide or improve modest homes in suitable rural environments at prices and at terms that families of low or moderate income can afford.

To be eligible for an FmHA farm loan the borrower must meet the following six requirements:

1. Have farm experience or training needed to succeed in the farming operation;
2. Possess the character, industriousness, and ability to carry out the operation;
3. Have the capacity to manage and operate the farm enterprise;
4. Be unable to obtain sufficient credit elsewhere at reasonable rates and terms;
5. Be a citizen of the U.S. of legal age; and
6. After the loan is made, be an owner or tenant operating a family farm that will produce a substantial portion of the operator's total income.

Farm background and experience are almost essential to obtaining an FmHA farm loan. FmHA respondents indicated that the probability of a person without a farm background getting a loan would be low.

When in the process of applying for a loan, the applicant, with the assistance of the FmHA county supervisor, usually works out a farm plan showing the best use of all available resources. This plan will then be used to help determine the soundness of the loan as well as providing a guide for the farmer.

FmHA loans are accompanied by technical advice in such areas as keeping accurate records, budgeting, and making profitable use of income and credit. On-farm management assistance is provided to the farmer through the county supervisor during the first few years of the loan. However, due to expanding responsibilities of supervisors, an increasing amount of this assistance is being done by extension specialists and other management sources.

Real estate loans through FmHA are limited to \$100,000 and with a maximum payback period of 40 years. In order to accommodate loan demands larger than this, FmHA is authorized to enter into a participating loan with other institutions. Under a real estate participating agreement

the combined FmHA and other institution loan can not exceed \$225,000. This form of loan while increasing the dollars available to the borrower can also reduce the risk to each lender. It does not, however, give greater assurance of success for the borrower.

Operating loans are limited to a seven-year repayment period and \$50,000 with the ability to renew the loan for an additional five years if necessary. Here again, FmHA can make participating loans with PCA or commercial banks but there is not a limit on the combined amount of the operating loan. In order for a tenant to get a 100-percent operating loan, an intermediate to long term lease is desirable as this helps to insure continuity of the operation.

Even though FmHA makes both ownership loans and operating loans, they shy away from making both types of loans to an applicant just getting started in farming. They strongly recommend that a beginning farmer focus first on machinery and livestock acquisition before acquiring land.

One requirement of FmHA is that borrowers refinance as soon as their financial position allows them to obtain credit elsewhere. Normally, a real estate loan is financed through FmHA from 10 to 15 years before transferring financing. For operating loans, this time period, before financing is transferred, is usually 3 to 4 years.

Major problems FmHA has had with loans are similar to those other institutions are having—that is the unstable farm prices and drastic weather conditions. Events of this nature can cause FmHA's security position as well as the borrower's leverage position to change drastically in a relatively short period of time.

Summary and Implications

Acquiring sufficient capital to start farming can be a major problem for individuals with little equity. Results of this study looked at practices and attitudes of commercial banks to supplying this type of needed credit. Generally, attitudes of the bank's representatives surveyed were relatively conservative. A majority indicated that in making loans to beginning farmers collateral was necessary for all agricultural loan types—real estate, machinery, livestock, and operating. For example, approximately half of the respondents indicated that they would not loan in excess of 70 percent of the value of a machine nor 80 percent of operating credit needs. This in itself limits commercial banks as a major credit source for low equity farmers regardless of the farmers management capabilities and other skills. In many instances farmers with low equity and high equity alike will need to borrow 100 percent of their operating credit needs. However, with respect to loan types there was a substantial variation in equity requirements among the banks. Therefore, it appears that with some shopping around a beginning farmer with 10 percent equity or less may be able to obtain operating credit from a commercial bank with an outside chance of obtaining livestock credit.

Projected repayment ability and balance sheet data was necessary in making loans to beginning farmers by at least 76 and 60 percent of the banks respectively. Reputation and family history and long range plans and goals were necessary for real estate loans at about half of the banks.

Of the respondents, four percent felt that a personal farm visit was a necessary part of making a farm loan while 16 percent felt it was desirable. For a low equity beginning farmer the personal farm visit can serve some very useful functions. It can facilitate communication for both the lender and the farmer. In addition, for the lender it can give a better picture of the total operation and for the farmer it can mean additional professional advice.

Usual loan repayment time among the respondents was 10 or more years for real estate, three to four years for machinery and two years or less for livestock or operating loans. Services provided by the banks were minimal but a number of respondents indicated that increased services were planned for the future. Management consulting, estate management planning, and retirement planning, are presently the services most often provided.

Less than one out of four banks planned on increasing their 1980 agricultural loan volume by more than half what it was in 1975. If this portrays banker's attitudes generally, it could lead to smaller market shares for commercial banks. This would be reflected in inadequate bank credit for beginning farmers and possibly established farmers alike. Of the banks surveyed, only one bank intended on actively seeking new agricultural customers. Thus, it will be the beginning farmers' responsibility to find credit sources among commercial banks.

On the other hand, Federal Land Banks (FLB's) Production Credit Associations (PCA's) and the Farmers Home Administration (FmHA) usually are actively seeking new accounts. FmHA response in this area can vary substantially because of dependence upon release of government funds. In particular FLB's and PCA's have increased agricultural loan volume substantially over the past few years.

FLB's make real estate loans primarily with the typical loan running 30-35 years and having a variable interest rate. They can legally lend up to 85 percent of an asset's value with no upper dollar limit, provided loan qualifications are met. In addition, FLB's have a deferred principal payment plan where the the beginning farmer makes only interest payments the first few years of the loan. FLB's can make participating loans with the FmHA and in doing so it is possible for a farmer to borrow 100 percent of the asset's appraised value.

PCA's make operating and/or short and intermediate term loans primarily. They are allowed to make loans for up to seven years and can lend up to 100 percent of operating capital needs if loan qualifications are met. PCA's can follow a line-of-credit financing where the amount of money needed is determined annually and the farmer draws it out when needed and pays it back when funds are available. PCA is allowed to make participating loans with commercial banks where the PCA will pick up that portion of the loan which the commercial banks cannot or are unwilling to pick up, thus opening up additional sources of capital for beginning low-equity farmers.

FmHA's make numerous types of loans, the primary agricultural loans being farm ownership and farm operating loans. They can make loans up to 100 percent of an asset's appraised agricultural value with a limit of \$100,000 for real estate and \$50,000 for operating capital. Payback

periods for real estate loans cannot exceed 40 years. In order to accommodate larger loan demands, FmHA can also make participating loans. Under participating loan agreements with FmHA, the combined real estate loan cannot exceed \$225,000. There is no combined limit on a participating operating loan. In order to obtain a loan from FmHA, farmers must prove that they can't obtain financing at reasonable rates from other sources. In addition, FmHA requires them to refinance at another lending institution when their equity position allows them to do so—usually 10-15 years for real estate loans and 3-4 years for operating loans.

Thus, it appears that low equity farm financing will continue to be a nemesis for years to come. In general, commercial banks prefer not to loan funds to individuals with low equity. However, a few are planning to service operating credit needs of these individuals.

Based on projected credit needs in agriculture along with bank respondents projected increase in volume it appears that commercial country banks will account for a relatively smaller share of agricultural credit. Assuming this is the case additional relative shares of capital will need to be forthcoming from other sources. Examples of such sources would include, PCA's, FLB's, insurance companies and individuals. Of these PCA's and FLB's would be the most consistent credit source over time. Insurance companies and individuals tend to enter the agricultural credit market if that market is where money will earn the greatest benefit. In periods when this is not the case these monies will go elsewhere.

REFERENCES

1. Brake, John, "Financing Michigan Farming—Now and in 1980," Research Report No. 46, Michigan State University, East Lansing, 1966.
2. Brake, John, "Problems Young Farmers Face in Getting and Managing Capital," Report of the Conference of Financial Needs of Young Farmers, Indianapolis, Inc. 1974.
3. Brown, Thomas G., "Financing Capital Requirements of Young Farmers," University of Missouri-Columbia, Dept. of Agricultural Economics Paper No. 1974-49, 1974.
4. Heisterberg, David L., "An Analysis of Capital Acquisition by Beginning Farmers," Unpublished Masters thesis. University of Missouri-Columbia, 1975.
5. Melichar, Emanuel, H. Harriet, and M. Sayre, "Agricultural Finance Databook," Board of Governors of the Federal Reserve System, Washington, D.C. 1976.
6. U.S. Department of Agriculture, "Agricultural Statistics," 1950, 1960, 1970, 1974.

