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Federal Credit Programs for Agriculture

Background for 1985 Farm Legislation

- **RATIONALE FOR FEDERAL CREDIT PROGRAMS**
- **FORMS OF FEDERAL CREDIT ASSISTANCE**
- **AGRICULTURAL CREDIT PROGRAMS**
- **LENDER SHARES OF FARM CREDIT MARKETS**
- **PERFORMANCE OF AGRICULTURAL
CREDIT MARKETS**

ABSTRACT

Federal credit assistance programs were developed in the early 1900's to overcome deficiencies in agricultural capital markets and respond to the problems of poverty, tenancy, and disenfranchisement. Federal credit policies, implemented primarily by the Farmers Home Administration and the Farm Credit System, have had a significant impact on the transformation which has taken place in agriculture and on farmers' access to capital. Agriculture continues to be a major recipient of Federal credit assistance. The agencies and institutions providing such assistance now hold about 40 percent of all farm debt.

Keywords: farm, credit

FOREWORD

Congress will consider new farm legislation in 1985, and proposals for credit assistance may be considered. This report examines the rationale, development, and current status of Federal credit assistance to agriculture with emphasis on the Farmers Home Administration (public credit assistance) and the Farm Credit System (Government-sponsored credit agency). The report is not intended to address directly the issue of financial stress now confronting some farm operators, nor does it offer recommendations for policy. The intent is to provide background information which may be useful in the consideration of legislation in 1985 to replace the expiring Food and Agriculture Act of 1981.

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Federal Credit Programs for Agriculture

INTRODUCTION

Federal agricultural credit programs--their rationale, development, status, and performance--are the focus of this report prepared as background for the 1985 farm bill discussions. The public credit assistance programs of the Farmers Home Administration and the Government-sponsored credit of the Farm Credit System are examined. Main objective of this report is to present background information. It does not directly address the financial stress now confronting some farmers, nor does it make policy recommendations.

Economic conditions in U.S. agriculture were severely depressed between World War I and World War II. The run-up in prices, incomes, and land values during the First World War was followed by more than 20 years of general decline in real farmland values, severe debt repayment problems, and widespread rural bank failures (8). (Underscored numerals refer to items in References section.)

In addition to problems with production imbalances, there were problems with supply of and demand for capital, especially loanable funds, in agriculture. On the demand side, farming was risky and returns low. Hence, farmers learned from bitter experience to be conservative in their use of debt. On the supply side, partly in response to that same riskiness, lenders shied away from agriculture. Hence, the supply of loanable funds was either unreliable, or available only at very high interest rates and at restrictive terms. Because of these shortcomings in the workings of financial markets, agriculture was undercapitalized (8).

The Federal Government responded by adopting programs to reduce riskiness of farming and to assure farmers easier access to credit at more favorable interest rates and at terms which recognized the unique characteristics of farm production processes. Chief among the institutions to administer these programs were, and are, the Commodity Credit Corporation (CCC), Farmers Home Administration (FmHA) and predecessor agencies, and the banks of the Farm Credit System (FCS).

These institutions dramatically changed the credit situation and flows of funds and resources to agriculture and facilitated the financing of a technological revolution and capital restructuring of U.S. agriculture between the 1930's and 1970's. They were so effective that by the 1960's, several studies (1, 14, 37) showed that excess agricultural capacity was likely. Throughout the 1960's, when funds were plentiful relative to national demand, and the 1970's and early 1980's, when funds were much scarcer, farmers continued to have easier access to loans and at lower interest rates than did others in the economy (24). While this condition helped many farmers to prosper and to accumulate assets, and assured a productive U.S. farm sector, it may have also contributed to inflated prices of land and other capital goods (26).

In 1983, \$17.8 billion in direct loan funds were disbursed primarily to farmers by CCC and FmHA--41 percent of all such transactions by the Federal Government. New guaranteed loan commitments amounted to a total of \$2.8 billion, 4 percent of all such Federal activity. New lending by the FCS amounted to about \$50 billion, 30 percent of all lending by Government-sponsored agencies. Federal and federally related agencies now hold 52 percent of the farm real estate debt outstanding and 44 percent of nonreal estate farm debt.

RATIONALE FOR FEDERAL CREDIT PROGRAMS

The rationale for direct Federal involvement in farm credit is generally based on two premises. The first is that there are social priorities and objectives that even a well-working commercial credit market will not serve, such as offsetting emergencies caused by natural disasters and providing preferential treatment to certain groups, regions, or sectors of the economy. The second premise is that imperfections in the credit markets serving certain groups, regions, or sectors constitute an undesirable credit gap. For example, new market forces such as Government policies or tax credits could divert loanable funds away from a region or sector. This contrasts with a situation where market forces determine allocations of loanable funds. Credit programs for agriculture have been justified on the basis of social and market performance objectives.

A nominal "credit gap" exists when the financial intermediation--the process of getting funds from savers to borrowers--does not allocate loanable funds efficiently and to the highest return uses. Credit gaps occur when artificial barriers block the flow of funds to sound investment opportunities whose benefits (returns) exceed their cost (interest rate). Artificial barriers may result from legal and institutional restrictions, inadequate information, prejudice, habit, and tradition.

Imperfections in Capital Markets

The public may benefit when the Government takes steps to remedy a credit gap or other competitive imperfections, but direct Government lending and the activities of Government-sponsored agencies divert funds from other sectors of the economy. Even when the public authority guarantees private investment, it causes private debt to be partly interchangeable with public debt. This alters the supply-demand balances in the various sectors of the capital market and, consequently, interest rates and the allocation of resources in the economy (28). However, if credit gaps distort the flow of loanable funds from socially optimal patterns, correction of the distortion improves the allocation of resources.

Useful guidelines for identifying supply performance problems in credit markets (credit gaps) include the following (28):

- o Chronic Credit Rationing. Availability of loanable funds to the borrower is unrelated to risks or returns. The borrower and the activity being financed may be "rationed out" of the market due to rigid rules, habit, or inertia on the part of lending institutions. Even though the borrower may be willing and able to pay a rate equivalent to the risk, credit is not available. Also, large interest rate discrepancies not related to legal barriers may occur from one region to another.

- o Cyclical Credit Rationing. Certain borrowers are repeatedly excluded from the market for reasons unrelated to risk or cost whenever availability of funds in the economy is reduced.
- o Direct Calculation of Returns. Loanable funds are not available even when the investment would result in returns considerably above the prevailing interest rates.
- o Discontinuities in Credit Terms. Because of institutional specialization, barriers created by law or custom, or lags in economic development, loan terms do not reflect risks and returns.
- o Differences in Interest Rates. Due to discrimination or inadequate competition, interest rate differences between regions and groups are not proportional to costs and risks.

The fact that some farmers cannot obtain loanable funds at prices they are willing and able to pay does not necessarily imply a credit gap. On the contrary, such a situation may imply that the credit markets are working well. Markets ration funds among competing uses on the basis of interest rates. What each would-be borrower is willing to pay for these funds depends on the expected profitability of the activity to which those funds are to be applied. Differences in interest rates will exist in well-functioning financial markets due to differences in risk associated with various activities, in the cost of providing funds to various borrowers, and in the liquidity of the loans. Again, that a potential borrower is not willing to pay the price at which credit is offered does not, per se, indicate a credit gap.

There was likely a credit gap facing agriculture prior to the development of Federal programs in the early 1900's. Farmers' access to credit had been a longstanding problem. Carver noted in 1932 that "During the whole of our colonial period and the first century of our national life...financing the farmers was one of our major economic problems playing a larger part in politics than any other question except those of slavery and tariff" (2). Costs associated with farm mortgages appeared to be very high and they frequently carried 5-year maturities. Such loans were ill-suited for farmers, especially tenant farmers wishing to become owners. Interest rates in the South and West were especially high compared to those in regions closer to national money markets, although these differences could have been due to cost and risk factors (21). The relative isolation of local banks and their limited access to national financial markets may have unduly exposed farmers to swings in credit availability (21).

Short-term credit had some of the same undesirable characteristics. Farmers needed funds for periods of 90 days to 1 year, while credit available seldom exceeded 90 days. Interest rates charged to farmers were high, especially rates charged by merchants and other trade sources. Established sources of credit were considered instable or unreliable. A downturn in the farm economy reduced liquidity of local financial institutions which in turn pressured the institution to call existing loans and terminate new lending. Conditions in agriculture would then worsen in response to liquidation needed to enable farmers to repay their loans (5, 11). However, it was not entirely clear that all these complaints were justified (21).

Social Objectives

Federal credit program would unlikely be organized to rectify market failure problems unless there were important unmet national social objectives. Most of today's Federal credit programs for agriculture were promulgated on the basis of the need to promote farmownership and check the rise in farm tenancy and strengthen the economic position of farmers in general. Indeed, agriculture's early credit programs may be viewed as social legislation stemming from the economic hardships of farmers after World War I and during the Depression. Credit programs tailored credit instruments to the needs of agriculture, reduced the cost of credit, and assured its availability. The aims were to redistribute income and credit in such a manner that would stimulate productivity through the more efficient use of resources, broaden ownership, and provide the basis for stable economic growth while easing a major social crisis.

Farmers' Current Access to Credit

Problems that Federal credit programs were designed to address have been significantly reduced. The problems associated with farm tenancy have been largely resolved. Despite current economic hardship for many farmers, the economic position of farmers has improved significantly since the 1930's and 1940's. Incomes and returns often are generally comparable to those in nonfarm sectors.

Although many young and low-resource farmers face major obstacles to farmownership, the barriers to farmownership are not principally due to a credit gap or to insufficient financial resources. Lower down payments, extended maturities, and systematic amortization of principal available from Federal lenders enable the farmer borrower to better meet periodic obligations. Competitive influences have led to the widespread adoption of these innovations by other lenders. Private lending institutions serving farmers recognize the unique requirements of agriculture: the seasonal nature of production, the importance of timing, and variability in prices and incomes. The legal, institutional, and economic framework encourages a diversity of credit resources for farmers. Regional differences in interest rates have largely disappeared. Other influences have also been at work, such as the deregulation of financial markets to ensure that the farm sector has a reliable and stable supply of credit at competitive interest rates.

FEDERAL CREDIT ASSISTANCE

Federal Government activities in providing credit assistance may be grouped by four major categories: (1) Government-sponsored credit agencies, (2) Government-insured loan programs, (3) Government-guaranteed loan programs, and (4) Direct loans.

Government-Sponsored Credit Agencies

Government-sponsored credit agencies are federally chartered financial intermediaries performing specific credit functions. All seven federally sponsored credit agencies are entirely privately financed after being initially capitalized by the Government. Transactions of these agencies are not included in the Federal budget and their debt is not part of gross Federal debt. Agriculture and housing have been the major sectors benefiting from sponsored credit agencies. Government sponsorship confers direct benefits to these agencies,

enabling them to be self supporting. In most cases, these benefits include the following:

- o Their debt securities can be held by federally regulated financial institutions in a number of cases where other private, State, and local securities are not eligible;
- o They are exempt from Federal income tax;
- o Interest on their debt securities is exempt from State and local income taxes;
- o Some have a line of credit with the Federal Government; and
- o Institutions are perceived by the security market to have a special relationship with the Federal Government even though their borrowing is not federally guaranteed.

As a result of these advantages, sponsored agencies can borrow in major money markets at rates very near the rates paid by the U.S. Treasury.

Net borrowings by Government-sponsored credit agencies rose to about \$48 billion in 1982, nearly five times the 1970 level, but has since fallen to about \$38 billion (table 1). The Office of Management and Budget estimates that the total debt outstanding of sponsored agencies in 1985 will reach \$366.4 billion, 23 percent of which would be held by FCS banks.

Government-Insured and Guaranteed Loans

Federal credit assistance is also provided through insured and guaranteed loans or by securities and loans which Federal agencies themselves sell. Under a loan guarantee, the Government promises to pay all or part of the principal and interest on loans made by private lenders in the event of default. However, the guaranteed obligation may also be a security sold in the capital market or to the Federal Financing Bank. Guaranteed loans are made to individuals, businesses, and State, local, and foreign governments under a variety of programs.

A loan guarantee transfers some or all of the risk to the Government and in effect transforms the private loan into a near-Government direct loan financed by a near-Government security. As a result, interest rates on guaranteed loans are often lower than what would be available through commercial sources. Since more favorable terms are available, economic resources are redirected toward those activities for which guaranteed loans are available. The extent to which allocations of financial resources are influenced depends on the degree of the subsidy. Loan guarantees for extremely risky activities that may not be handled by the private market would constitute a large subsidy. Whether the subsidy is large or small, the guarantee effectively channels credit toward federally selected uses and thereby reduces the supply of credit used in other activities. Insured loans differ from guaranteed loans primarily in that premiums on insured loans are paid by the borrower to cover losses and expenses.

Guaranteed loan commitments have increased significantly, from \$25.9 billion in 1975 to \$97.4 billion in 1984 (table 2). Guaranteed loans outstanding reached \$363.8 billion in 1983 and are estimated to increase by about 11 percent in 1984. Current OMB projections show that outstandings could easily reach \$500 billion in 3 years.

Table 1--Net borrowing by Government-sponsored agencies

Description	Borrowing or repayment (-)						Debt outstanding 1985 1/
	1975	1980	1981	1982	1983	1984 1/	
	<u>Million dollars</u>						
Student Loan Marketing Association	-10	1,070	2,223	2,325	1,332	1,467	11,209
Federal National Mortgage Association	3,004	6,347	4,342	19,284	19,105	13,609	121,946
Farm Credit System: 2/ Banks for Cooperatives	612	1,542	737	-423	548	499	9,840
Federal Intermediate Credit Banks	1,500	3,536	1,921	-258	-1,861	141	20,387
Federal Land Banks	3,000	7,076	6,819	5,427	624	2,332	52,870
Federal Home Loan Bank Board:							
Federal Home Loan Banks	3,963	6,454	21,029	3,216	-9,071	3,227	60,300
Federal Home Loan Mortgage Association	2,229	3,141	1,847	17,430	20,192	15,776	91,478
Total	14,298	29,165	38,917	47,001	30,870	37,051	368,029
Less increases in debt holdings	2,374	1,691	280	-881	-765	-700	1,616
Total	11,919	27,473	38,637	47,882	31,635	37,751	366,413

1/ Estimated.

2/ The debt represented by consolidated bonds is attributed to the respective farm credit banks.

Source: (32).

Table 2--Federal credit budget

Description	1975	1980	1981	1982	1983	1984	Debt out-	
	:	:	:	:	:	1/	standing	
	:	:	:	:	:	:	:	
	:	:	:	:	:	:	1983	
	:	:	:	:	:	:	:	
	:	:	:	:	:	:	1983	
				<u>Billion dollars</u>				
Direct loan obligation:								
Commodity Credit Corporation				11.5	13.9	6.1	16.0	
Farmers Home Administration				8.2	6.7	8.3	57.4	
Rural Electric Administration				5.8	4.5	4.5	33.5	
Foreign military sales				3.9	5.1	5.7	14.3	
Export-Import Bank				3.5	0.8	2.6	16.9	
All others				10.5	10.4	10.7	84.9	
Total obligations	12.7	51.1	53.5	43.4	41.4	37.9	223.0	
Guaranteed loan commitment:								
Federal Housing Administration				18.6	44.6	38.1	161.0	
Low Rent Public Housing				13.3	14.3	15.2	19.9	
Student Loans				6.2	7.3	7.6	2.6	
Veterans Administration housing				6.0	14.7	13.4	120.0	
Export-Import Bank				5.8	8.5	10.0	5.4	
All others				3.8	7.8	13.1	54.9	
Total commitments	25.9	82.2	76.5	55.7	97.2	97.4	363.8	
Total credit budget	38.6	136.3	130.0	99.1	138.6	135.3	NA	

NA = Not applicable.

1/ Estimated.

Source: (32).

Guaranteed loans provided to agriculture are not shown separately in the table because they constitute such a small share. The CCC provides some loan guarantees, primarily for export promotion (\$4.7 billion in 1983). Guaranteed loans are primarily targeted to the housing industry where financial institutions and markets are well developed.

Direct Loans

Direct loans are made by Federal agencies to channel economic resources to particular uses. The use of a direct loan is best justified when some social objective could not be achieved through private sources of credit, even if a loan guarantee were available. In order to ensure that the objectives of the loan program are achieved, Federal agencies provide credit at rates sometimes far below commercial rates and often at longer maturities.

Agriculture is a major recipient of direct Federal lending, accounting for 61 percent of all obligations in 1983 (table 2). The FmHA and CCC farm loan programs accounted for 41 percent. Total direct loans outstanding in 1983 were estimated at \$223 billion, with agriculture accounting for nearly 50 percent. Farmers account for 20 percent.

Magnitude of Federal Credit Assistance

Federal credit--direct, guaranteed, and sponsored agency loans--is now a major component of the national financial market. Federal lending now approaches \$90 billion and is close to 20 percent of funds advanced in national financial markets (table 3). The subsidy resulting from reduced rates and extended maturities resulting from direct loans only in 1983 totaled an estimated \$8.4 billion; agriculture received 71 percent of that and farmers received \$1.7 billion or 20 percent (32).

Federal borrowing, which reflects the impacts of Government and sponsored agencies on financial markets, has shown remarkable growth, especially in the last 4 years. Federal borrowing in 1983 stood at \$281 billion, 56.5 percent of funds advanced in U.S. credit markets. Funds raised for guaranteed and sponsored agency loans stood at about \$69 billion in 1983 and will increase to about \$80 billion in 1984. Federal intervention in national financial markets now is in sharp contrast to the first half of the 1970's when borrowing under Federal auspices averaged \$32 billion annually.

FEDERAL AGRICULTURAL CREDIT PROGRAMS

Farmers Home Administration

Federal credit in agriculture means the Farmers Home Administration to many people. It is the lead Federal agency for providing financial and technical assistance to qualified farmers and rural communities who cannot find other sources of financing on terms or conditions they can meet. FmHA has 48 years of experience in providing this type of assistance. The agency now serves a far broader mission than when its predecessor agencies were organized.

History

The lineage of FmHA begins with the Resettlement Administration first organized as an independent agency in 1935 and 2 years later reorganized under USDA. Its

primary and pioneering mission to provide supervised loans to Depression-stricken farm families was part of a larger Federal effort to help rural families to re-establish themselves on a self-supporting basis. In its 2-year history of providing assistance to the poor in rural areas, the Resettlement Administration made more than 300,000 short-term loans, often supported by grants. Loans were accompanied by a farm and home management plan, developed in cooperation with local supervisors, to ensure use of good farming practices and that family needs were met.

Depressed economic conditions for farmers continued, especially for tenant farmers. The Bankhead-Jones Farm Tenant Act of 1937 gave the Resettlement Administration responsibility to provide long-term financing to farmers who lacked other sources of credit to purchase land and farm and home improvements. In that same year, the Farm Security Administration (FSA) was created to take over responsibility for administering the Farm Tenant Act and also the Water Facilities Act which provided loans for farm water systems. By 1941, FSA had originated more than 13,000 loans to tenant families to purchase farms.

In 1946, Congress passed the Farmers Home Administration Act in recognition of the need for improved and new programs for postwar agriculture. FSA was re-organized and renamed the Farmers Home Administration. The 1946 Act gave FmHA the new authority to insure loans made by banks, other agencies, and private individuals as well as to provide direct Government loans. Certain lending authorities were consolidated under the new agency, most notably the emergency crop and feed program, which just prior to that time had been administered by the Farm Credit Administration (FCA). Rural rehabilitation loans were terminated. Until 1949, FmHA emphasized the development of supervised farmownership and operating loan programs, and water facilities projects in the West.

Beginning in 1949, the number of programs and services administered by FmHA grew rapidly. This expansion in program authority was accompanied by the creation of a system of FmHA county offices. Legislation that broadened FmHA's functions included:

- o Federal Housing Act of 1949 to provide housing loans to farmers.
- o Disaster Loan Act of 1949 to provide emergency farm loans to recover losses due to natural disasters.
- o Water Facilities Act (as amended in 1954) to provide nationwide coverage and to let farm water systems take on nonfarm rural customers.
- o Consolidated Farmers Home Administration Act of 1961 to raise limits to \$60,000 for farmownership loans and to \$35,000 for operating loans and to open up the water systems program to the general rural population and raise loan limits.
- o Federal Housing Act (as amended in 1961) to make nonfarm rural residents eligible for direct housing loans.
- o Farmers Home Administration Act (as amended in 1962) to enable the development of outdoor recreational facilities to benefit rural people; to set up farm-based recreation and nonagricultural enterprises that add to family income; to provide loans for association grazing ranges; to develop community facilities, improve homesites

and housing, and to attract new industry; and to make loans for the benefit of resource conservation.

- o Economic Opportunity Act of 1964 to establish loans to low-income rural people for small-farm improvements and nonfarm enterprises.
- o Housing Act (as amended in 1968) to provide subsidized housing loans to low-income families and developers, loans and grants for "self help" homebuilding projects, and loans for farm labor housing.

Other legislation from 1965 to 1970 expanded the size of communities eligible for housing loans, transformed the water facilities loan program to a loan and grant program for both water and waste disposal systems, raised loan limits on FmHA projects for rural towns, abolished or expanded statutory annual ceilings on various programs, and removed technical barriers to the use of investors' FmHA-insured funds, rather than direct appropriated funds, for loans to tax-exempt bodies. FmHA also acted in 1970 to increase cooperation with other lenders serving farmers. In 1971, the limit on farmownership loans secured by real estate was raised to \$100,000. FmHA authority was further expanded during the 1970's:

- o Rural Development Act of 1972 gave USDA primary authority for rural development. Important provisions of the act authorized FmHA to guarantee loans made by commercial lenders for farming, housing, and rural business and industry, greatly expand loan limits and availability of water and waste disposal loans, and raise limits on farm operating loans to \$50,000.
- o Emergency Livestock Credit Act of 1974 guaranteed loans made by commercial lenders to financially distressed livestock and poultry producers. The program was terminated in 1979. About \$1 billion of credit was used by farmers and lenders.
- o Agricultural Credit Act of 1978 provided economic emergency loans up to \$400,000 to farmers or ranchers in economic stress due to unavailability of credit or cash-flow difficulties. A maximum of \$6 billion in these loans could be used to refinance outstanding debt, reorganize the operation, and pay operating expenses, but could not be used for farm expansion. The act was set to expire in 1980 but was extended by the Food and Agriculture Act of 1981 until 1982. The 1978 Act also expanded eligibility for farm loans to family corporations, cooperatives, and partnerships; increased loan limits to \$200,000 for insured and \$300,000 for guaranteed farm real estate loans, and to \$100,000 for insured and \$200,000 for guaranteed farm operating loans; interest rates on farmownership loans were based on Government cost of borrowing; subsidized rates were made available to limited resource farmers; and interest rates on disaster emergency loans for actual losses were set at 5 percent.

Program Funding

In 1960, FmHA administered eight programs, of which farm operating loans accounted for 64 percent and farmownership loans accounted for 14 percent of all FmHA funds obligated. By 1982, the agency administered 23 grant and loan programs. FmHA now has about 1.3 million active borrowers, up from about

176,000 in 1962. The net amount of loans and grants made annually has increased 10-fold since 1962 and in 1982 stood at about \$8 billion, down from the high of \$13.6 billion in 1979.

FmHA has three revolving credit funds to accumulate and distribute loan funds: the Agricultural Credit Insurance Fund for farmer programs, the Rural Housing Insurance Fund for housing programs, and the Rural Development Insurance Fund for community, and business and industry programs. These revolving funds are financed primarily through payments of outstanding FmHA loans, congressional appropriations, and the sale of certificates of beneficial ownership (CBOs). CBOs are securities signifying interest in a pool of FmHA loans and are sold to the Federal Financing Bank. In addition, FmHA guarantees loans made by private lenders to less creditworthy borrowers. These private lenders make and service the loans, with FmHA guaranteeing up to 90 percent of the loan amount.

Program Emphasis

Between 1960 and 1975, the shares of major loan program categories shifted considerably. The share of housing program loans more than doubled while the share of farmer program loans declined by more than half (table 4). Funding for housing programs has now stabilized between 30 to 40 percent, while farmer programs have regained their traditional lead in FmHA lending activities. The shares of water and waste disposal, community facility, and business and industry loans have declined steadily since the mid-1970's.

While starting from a relatively low level, housing and community program loans showed the most growth in the 1960's. Farm program lending held at the \$500-\$700 million level. In the 1970's, farmer program loans doubled with much of that growth occurring late in the decade through economic and emergency disaster lending.

Table 4--FmHA program shares of loans and grants obligated, 1960-82

Fiscal year	Farmer programs		Housing programs		Community programs <u>1/</u>	
	Million dollars	Percent	Million dollars	Percent	Million dollars	Percent
1962	703	87	96	12	10	1
1965	561	75	133	18	50	7
1970	625	40	790	51	146	9
1975	1,638	33	2,223	45	1,030	21
1979	7,624	56	3,764	28	2,244	16
1980	6,281	52	3,748	31	2,014	17
1982	4,086	50	3,442	42	626	8

1/ Includes the business and industry, water and waste disposal, and community-facility loan programs.

The percentage share of total FmHA loans outstanding (not to be confused with new loans) for community programs remained approximately constant from 1976 to 1980. Farmer program loans outstanding increased during that time from approximately 30 percent to 43 percent of the FmHA total. Between 1975 and 1977, loans outstanding for rural housing programs were roughly 60 percent of total FmHA loans outstanding. By 1980, the housing program's share had declined to 46 percent. In nominal and real terms, total FmHA loans outstanding have increased substantially since 1975. From a value of over \$15 billion in 1975, total FmHA outstanding loans reached a balance of over \$44 billion in 1980.

Farmer Programs

The most important of the farmer programs in terms of volume of obligations are the emergency disaster, farmownership, and operating loan programs with 53, 16, and 30 percent of farmer program obligations in 1982, respectively. A high proportion of loans to farmers under these categories are made directly by FmHA at concessional interest rates and maturities. A small share of loans made by lenders are guaranteed. Other programs include the soil and water, recreation, irrigation and drainage, and Indian land acquisition programs.

Emergency disaster loans are limited to farmers in areas that officially declared a disaster. FmHA State directors must approve these loans before they are granted to allow farmers to continue operating until they can obtain credit from private sources. Funds can be used to reconstruct buildings, purchase farm supplies, or to refinance other debt. The emergency disaster program has expanded considerably over the past 20 years and especially during the late 1970's as a result of administrative and congressional action. However, lending activity under the disaster loans has declined significantly since 1978-81 to mid-1970 levels (table 5). In terms of loans outstanding, the emergency disaster program has grown about 10-fold since 1975 and now represents about 40 percent of all debt outstanding for farmer programs (table 6).

Economic emergency loans are made to farmers when credit is scarce due to local or widespread economic stress. Such stress might be induced by monetary policy or by low product prices coupled with high production costs. The loans enable the farmers to continue normal operations during economic stress. After the economic emergency program's inception in August 1978, it grew to account for about 40 percent of all farmer program obligations in 1979. During 1980, however, this share declined to 34 percent. About 20 percent of all farmer program loans outstanding in 1983 were economic emergency loans even though authorization for the program was terminated in 1981.

The farmownership program was basically designed to enable beginning and tenant farmers to become owner-operators. Loans can also be used to refinance existing debt, develop water resources, finance a variety of nonfarm enterprises, and purchase, improve, or enlarge farms. The farmownership loan program's share of farmer program obligations increased from 16 percent in 1960 to 41 percent in 1970, but has since declined to 15 percent. Its share of total farmer program loans outstanding stands at about 25 percent.

The operating loan program provides short- and intermediate-term loans to family farmers for a variety of purposes including the purchase of livestock, farm supplies, food and clothing, as well as for the purchase or construction of nonfarm enterprises such as campgrounds and riding stables. The farm operating loan program's share of total farmer program obligations declined from 74 percent in

1960 to 14 percent in 1980. Farm operating loans now constitute only 10 percent of all farmer program loans outstanding.

Prior to the late 1970's, interest rates charged by FmHA on farmer program loans did not reflect changes in the Government's cost of funds--the interest rate on 90-day Treasury bills (fig. 1). Interest rates on FmHA loans for real estate purchases were fixed at 5 percent, while interest rates on loans for nonreal estate purposes were generally above the Government's cost of funds. FmHA interest rates were consistently less than rates charged by rural banks for operating loans. In 1978, FmHA interest rates were brought into line with the Government's cost of funds. FmHA interest rates were generally below Treasury rates until the fourth quarter of 1981.

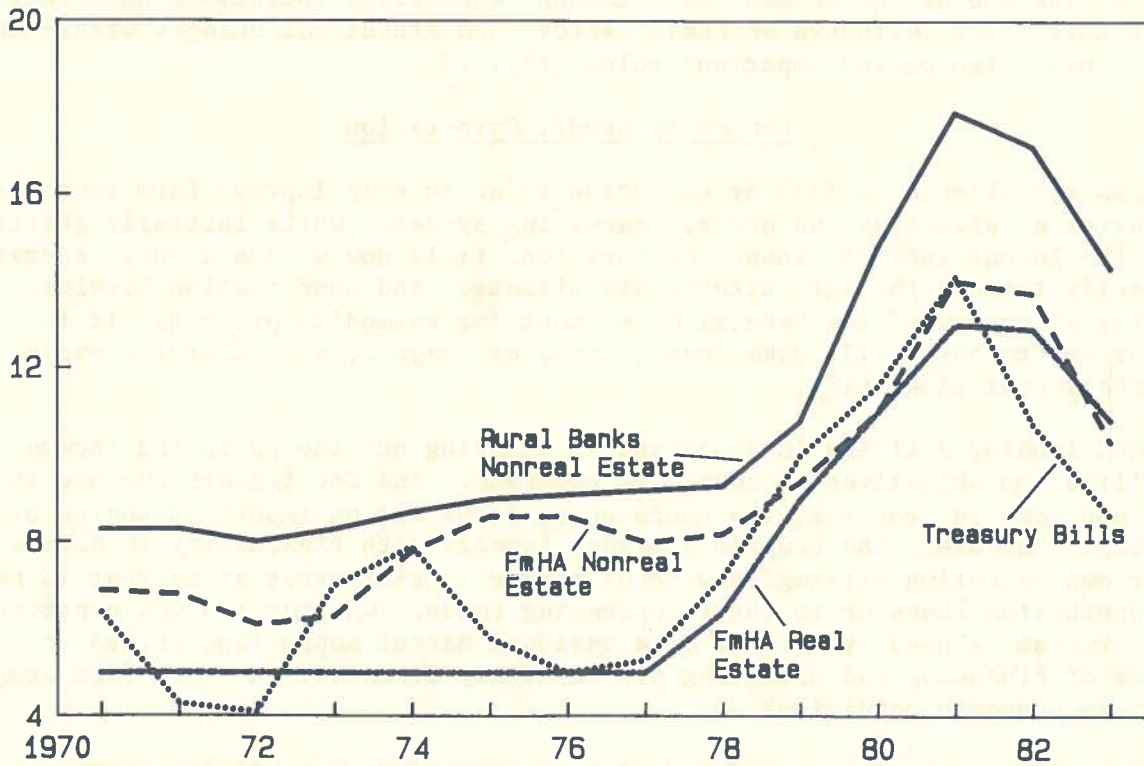
Rationale and Program Development

Early activities of FmHA and its predecessor agencies were primarily concerned with addressing the severe social and economic conditions of the 1930's and to affect a permanent improvement in the chronic poverty among farm families. Their initial role was to provide supervised credit primarily to low-resource farm families and thereby assist their adjustment to rapid technological and economic change. FmHA credit assistance was exclusively provided on the basis

Figure 1

Agricultural Interest Rates, 1970-1983

Percent



of achieving social priorities for individuals who, for reasons beyond their control, were considered poor risks and could not obtain credit at reasonable rates and terms. It was primarily a role of providing emergency lending by underwriting disaster risks at a time when there were significant net social gains to be realized. In providing supervised credit that supplemented that available from other sources, FmHA enabled resources to remain in agriculture that otherwise would have been shifted to other sectors due to adverse economic conditions and a lack of credit. Later, this role was expanded to rural communities and nonfarm rural families for housing, water, and waste disposal projects.

* There has been a slow but perceptible shift in the purpose of FmHA credit assistance. The welfare aspects of the program have declined steadily in favor of other aspects. The use of farm operating loans has shifted from maintaining low-income, self-sufficient farms towards one of bringing about commercially viable enterprises. The emphasis on family living needs has been greatly de-emphasized. The titles given intermediate credit loans portray this change: from rehabilitation to production and from subsistence to farm operating loans (13). Farmownership loans have shifted in emphasis from financing farm purchases by a tenant towards farm enlargement and development by owner-operators and part-time farmers.

FmHA credit assistance to farmers has generally and gradually evolved toward providing credit to all farmers who for various reasons are unable to obtain credit elsewhere. The subsistence and large-scale operations are equally eligible as long as credit is not available elsewhere at reasonable terms. The legislative and administrative actions to increase loan size, refinancing existing indebtedness, provision of loans to part-time farmers, and encouragement of the use of guaranteed loans through commercial operations have facilitated this shift, although economic factors and structural changes within the sector have also played important roles (13).

Commodity Credit Corporation

CCC was established in 1933 by executive order to help improve farm income and to foster an effective and orderly marketing system. While initially affiliated with the Reconstruction Finance Corporation, it is now a USDA agency, operating primarily through the Agricultural Stabilization and Conservation Service. As the fiscal agency of the Federal Government for commodity programs, it is authorized to buy, sell, make loans, transfer, export, and otherwise engage in commodity operations (18).

The CCC lending activity is important in carrying out the price and income stabilization objectives of commodity programs. And for farmers who use the loan and reserve programs, the nonrecourse loans are an important source of funding. Moreover, the program provides farmers with flexibility to develop their own marketing strategies without having to sell crops at harvest to pay off production loans or to obtain operating funds. Whether the CCC nonrecourse loan program is used by farmers as a residual market supporting prices or a source of financing and marketing aid is highly dependent on other farm programs and farm economic conditions.

Farmers, sugar processors, and marketing cooperatives can receive nonrecourse loans equal to a price per unit (loan rate) multiplied by the amount of the eligible basic commodity used as collateral. After the loan agreement has been entered into, the farmer can sell the commodity and thereby redeem the loan.

Or the farmer can simply let the loan expire, in which case the CCC takes title to the commodity. If prices are above the loan rate plus accrued interest, it is generally favorable for the farmer to redeem the loan, paying both principal and interest.

Since 1977, producers of eligible rice, wheat, corn, sorghum, barley, and oats have had an additional option enabling them to extend the regular loan into a longer 3-year contract by placing the grain in the farmer-owned reserve (FOR). Under the FOR program, farmers receive the same minimum price protection by agreeing to hold the commodity off the market until the national average market price reaches a predetermined release level. Farmers receive storage payments until release is indicated. Interest rates on the reserve loans may be the same as those for regular loans; however, interest charges have been omitted for the first year of the reserve loan in some instances. The CCC has also provided loans to farmers to purchase onfarm storage and handling facilities.

The interest rate on CCC loans was generally in the 3- to 4-percent range from 1940 until the early 1970's. Those rates were about half the rates charged by other agricultural lenders. Since the mid-1970's, the differentials between CCC and commercial rates have narrowed considerably because interest rates on CCC loans are tied to the cost at which the CCC obtains funds from the Treasury.

The CCC had about \$5 billion in loans outstanding to farms on January 1, 1980, accounting for 3 percent of all farm debt. By January 1, 1983, CCC loans outstanding had risen to over \$15 billion, surpassing FmHA's \$14.8 billion outstanding in nonreal estate loans. Availability of CCC credit reduces farmers' needs for alternative credit. Moreover, in some years, the infusion of large amounts of CCC money into rural areas permits farmers to repay other lenders and adds to the liquidity of commercial banks.

GOVERNMENT-SPONSORED LENDING TO AGRICULTURE

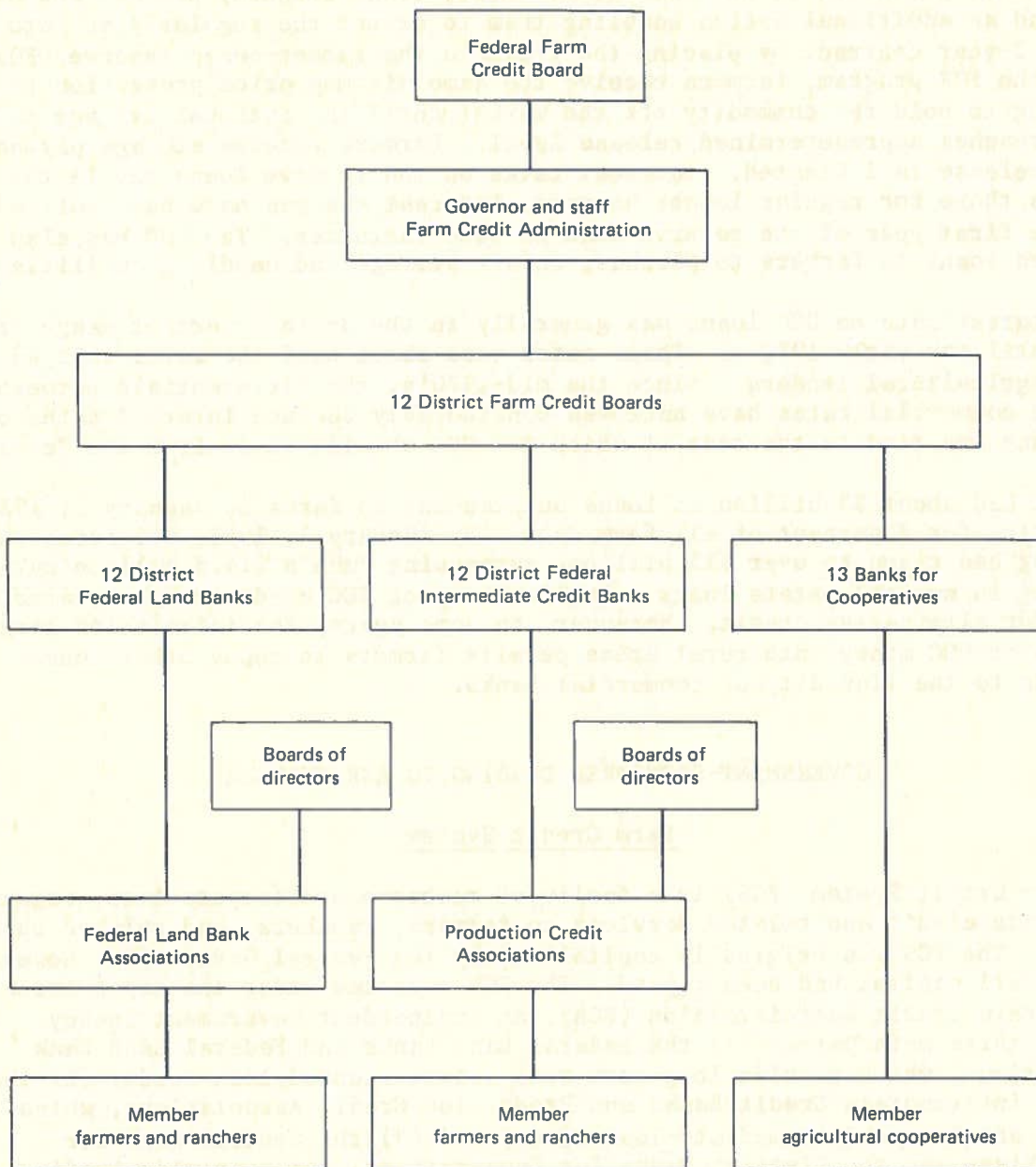
Farm Credit System

The Farm Credit System (FCS) is a family of member-owned cooperatives, organized to provide credit and related services to farmers, ranchers, and related businesses. The FCS was originally capitalized by the Federal Government; however, by 1968 all capital had been repaid. The FCS operates under the supervision of the Farm Credit Administration (FCA), an independent Government agency. The FCS has three main parts: (1) the Federal Land Banks and Federal Land Bank Associations, which provide long-term real estate secured loan funds; (2) the Federal Intermediate Credit Banks and Production Credit Associations, which provide short- and intermediate-loan funds; and (3) the Central Bank for Cooperatives and the District Banks for Cooperatives, which provide funding for agricultural cooperatives (see fig. 2).

The FCS is referred to as a federally sponsored credit agency. Like other sponsored credit agencies including the Federal National Mortgage Association and Federal Home Loan Banks, it performs specialized credit functions. These agencies are privately owned, largely independent of Federal control, and, because of their charter, have operational characteristics which carry unique competitive advantages in servicing their client group or function. The competitive advantages of the FCS, among other factors, contribute to the perception of Federal agency status the FCS enjoys in financial markets. It can thereby obtain loanable funds at rates lower than can other private financial

Figure 2

Structure of the Farm Credit System



intermediaries. FCS proponents argue that loss of agency status would severely hamper the FCS in carrying out its role of providing adequate financing for agriculture.

History

The FCS was created to provide a sound, reliable, and permanent credit source under all economic conditions to all regions and to all eligible producers and agriculture-related activities. Its initial role was to address social concerns arising from the growth in farm tenancy by improving access to long-term financing. Its clientele now includes all producers who can qualify on commercial terms.

The FCS began with the Federal Farm Loan Act of 1916, which established the Federal Land Banks. The act provided capital for agricultural development, created standard forms of investment based on farm mortgages, equalized rates of interest for farm loans, furnished a market for U.S. bonds, created Government depositories and financial agents for the United States, and provided capital for other purposes to improve the income and well-being of U.S. farmers and ranchers (16). The act responded to the poor terms under which real estate loans were then made available to farm operators; maturities on real estate loans seldom exceeded 5 years, interest rates were high, and loan renewals were difficult to obtain. Twelve regional Federal Land Banks (FLBs) were authorized to alleviate the problem of obtaining long-term real estate mortgage loans. Local Federal Land Bank Associations (FLBAs) were authorized to service these loans. In 1917, these federally chartered institutions were organized and capitalized by the Federal Government.

The Agricultural Credit Act of 1923 established the Federal Intermediate Credit Banks (FICBs). FICBs were set up to make loans to farmer cooperatives and to provide discounting privileges to commercial short-term lenders in agriculture. The other financial institutions did not use the FICB services to the extent expected, however. Farmers, consequently, did not receive the credit services they needed.

Congress passed the Farm Credit Act of 1933 to correct the lack of use of the FICBs by authorizing local farmer-owned Production Credit Associations (PCAs). The PCAs make short- and intermediate-term loans that can be discounted with the FICBs. The 1933 Act also authorized 13 Banks for Cooperatives to provide seasonal and term loans to farmer-owned marketing, supply, and service cooperatives.

The Farm Credit Act of 1953 reestablished the FCA, created in 1933 to supervise all FCS institutions, as an independent agency in the Executive Branch. The act provided users a better means of controlling the FCS and allowed for the retirement of all Government capital invested in it. All Government capital was repaid in 1968 and the FCS became privately owned.

The Farm Credit Act of 1971 was perhaps the most important piece of legislation concerning the FCS. The act consolidated all prior laws governing the FCS, enabled intrasystem coordination needed to maintain creditworthiness in financial markets, liberalized its lending authority, and provided the increased flexibility to respond to growing borrower needs. Specific provisions of the act:

- ° Updated and modernized Federal Land Bank laws.

- Specified that FLB loans may not exceed 85 percent of appraised value of the real estate offered for security. Prior to 1971, FLBs could lend up to only 65 percent of the normal agricultural value of real estate. This change to 85 percent of appraised value allowed for a more liberal lending policy.
- Enabled FLBs and PCAs to make home mortgage loans to rural residents in rural areas or in towns of fewer than 2,500 inhabitants.
- Allowed FLBs to provide financial-related services such as estate planning and trust management to their members.
- Authorized delegation of more loanmaking and service authority to local FLBAs and their managers.
- Continued to exempt FLBs, FLBAs, and FICBs from Federal, State, and local taxation, except taxes on real estate held by a FLB, FLBA, or a FICB to the same extent, according to its value, as other similar property held by other persons is taxed. (PCAs pay income taxes.) Revenues to holders of FCS bonds are exempt from State and local income taxes, but not Federal income taxes.
- Authorized PCAs to finance farm-related businesses.
- Enabled PCAs to participate more effectively with commercial banks in loans to farmers. PCAs were authorized to enter into loan participation agreements with commercial banks and other lenders.
- Provided that FICBs may enter into participation agreements with PCAs, and PCAs may enter into participation agreements with other PCAs in making and servicing loans.
- Permitted PCAs to perform financial-related services for farmers and ranchers such as tax assistance, electronic farm recordkeeping, and counseling on retirement programs.
- Adjusted eligibility requirements for farmer cooperatives borrowing from the Banks for Cooperatives (BC).
- Broadened the PCAs and BCs field of service to include loans to producers and harvesters of aquatic products.
- PCAs were allowed to own and lease out farm machinery.

Through the Farm Credit Act Amendments of 1980, the FCS was able to further consolidate and expand the powers of its components. The component parts are now able to pool capital, share losses, exchange loans, participate in loan syndications, and continue to gather funds nationwide through debt instruments. Major 1980 amendments dealt with membership requirements, discounting paper, usury, and export financing. Some other major provisions include those dealing with the farmland loan limit, financing off-farm processing and marketing, loan participations, sale of insurance, and loan maturity. Some of the provisions include:

- PCAs were granted revised authorities to issue participation certificates to other lenders. Under the new law, the PCA

ownership equity (participation certificate) could be issued directly to the bank, removing the PCA as a visible third party and minimizing the tendency of the borrower to switch lenders.

- FLBs were given new authority to participate in loans with other lenders. The new law provided FLBs for the first time the same basic authority that PCAs previously possessed to participate with other lenders, including banks, in making mortgage credit available to farmers. Under the 1971 law, FLBs could only participate with other FLBs. The new provisions allowed FLBs to participate with unlike institutions within the FCS: BCs, FICBs, as well as nonfarm credit institutions such as banks.
- Other financial institutions (OFIs), which include banks, were granted revised authority to discount loans with FICBs.
- For the first time, FICBs were enabled to discount for OFIs the same types of loans and for the same purposes that PCAs are authorized to make.
- Direct discounting with FICBs was increased from 2 to 10 times the OFIs' or banks' paid-in and unimpaired capital surplus. Starting limits on the chartering of an agricultural credit corporation were increased.
- PCAs and FLBs were authorized to make processing and marketing loans to bona fide farmers, ranchers, and aquatic producers.
- Provided a new authority for BCs to offer basic financial services to cooperatives for export and import transactions, and for BCs to engage in international banking activities which facilitate agricultural exports and imports of farmer cooperatives.
- Lowered the farmer-member eligibility requirement for BC financing to 60 percent of voting members for rural electric, telephone, and utilities service and certain local supply cooperatives. Other cooperatives must continue to satisfy the previous requirement of 80 percent.
- Allowed FLBs to make loans up to 97 percent of the appraised value of the real estate where a Government guarantee is provided. FLBs had been limited to 85 percent under the previous statute.
- Authorized (1) FLBs to make real estate mortgage loans to producers or harvesters of aquatic products, (2) FLBs, FICBs, and PCAs to provide borrower-members and applicants financially related services appropriate to their aquatic operations, (3) FICBs to discount aquatic loans of other financial institutions outside the FCS, and (4) cooperatives engaged in furnishing aquatic business services to borrow from the PCAs.
- Authorized BCs to finance domestic leasing including leverage leasing transactions between U.S. farmers or aquatic cooperatives and other domestic parties. ✓

- Authorized district boards to increase the maximum term of nonaquatic PCA loans to 10 years from 7 years.
- Clearly established that associations may sell on an optional basis credit or term life and credit disability insurance and other insurance necessary to protect the members' farm or aquatic units. Other insurance is limited to hail and multiple-peril crop insurance, title insurance, and insurance on aquatic borrowers.
- Authorized the FCA to charter Federal corporations performing service and finance functions authorized by Congress for FCS institutions.
- Authorized FCS organizations to deposit their securities and current funds in any insured State bank. Formerly, only banks that were members of the Federal Reserve System qualified.
- Required FCA to provide annual reports to Congress on FLB and PCA programs to serve young, beginning, and small farmers.
- Authorized FCS institutions to enter into general loss sharing agreements with other FCS institutions.
- Exempted FCS institutions from State usury ceilings.

Because of Federal statutes and regulations relating to these activities, the Farm Credit System has easier access to financial markets, can acquire loanable funds at lower cost, and can otherwise perform its role as a specialized credit agency servicing agriculture. FCS securities are eligible for discounting by the Federal Reserve and can be used as security to collateralize public deposits of the U.S. Government. Federal credit unions can invest in FCS securities. They also qualify for liquidity reserves of savings and loan associations. Federal Farm Credit Banks systemwide bonds can be used by the Federal Reserve in conducting open-market operations. Bonds issued by the FCS banks are exempt from regulations restricting commercial banks from investing more than 10 percent of their unimpaired capital and surplus in the obligations of one issuer.

Rationale and Program Evolution

The FCS was initially organized to respond to the institutional and economic factors that prevented the farming sector from having adequate access to credit. While the act establishing the Federal Reserve had created an appropriate commercial and industrial banking system, it was argued that special provisions were also required to facilitate the credit needs of farmers (17). Legislation subsequently enacted contained both welfare dimensions (to check farm tenancy and strengthen economic position of farmers in general) and the means to overcome perceived institutional barriers to credit for farmers (5, 6). But, the early legislation which initiated and refined the FCS was primarily intended to establish a lender of last resort for farmers.

The FCS agencies have been extremely successful in meeting the credit needs of farmers during periods of expansion and crisis when an avenue for credit relief was needed to stabilize economic conditions. The FCS has been able to use scale economies to pool risks, obtain high-quality management, gain access to national capital markets, and yet maintain local responsibility and interest (21). The

FCS banks are now an integral part of the agricultural lending industry. Through consolidation and expansion, these banks now have broad powers to share risks, participate with other lenders in loan activities, offer a broader range of financial services, and expand its clientele.

Current Issues

Agency Status

In 1981, the President's Cabinet Council on Economic Affairs raised a number of questions about the merits of continuing the special benefits enjoyed by federally sponsored specialized lending institutions, including the FCS. These questions were motivated by concern about distortions in the allocation of funds in financial markets, the need to reduce unfair competition with private lenders, and pressure to reduce the level of activity included under the Federal Credit Budget. The Cabinet Council expressed concern about the growing influence of all Government-sponsored enterprises in financial markets and the consequences for the cost and availability of funds to sectors of the economy not represented by these enterprises.

Actions proposed to alter the FCS included placing restrictions on the use of FCS securities, removing the tax exempt status of FLBs and FICBs, removing the exemption of income earned from FCS securities from State and local taxation, and subjecting FCS banks to Securities and Exchange Commission regulations and State banking regulations. After extensive study and review of the proposed actions that would have virtually eliminated the agency status of FCS securities, it was concluded in late 1982 that no such actions would be undertaken.

The net impacts of the loss of agency status of the FCS on the national economy, financial markets, banking industry, and the farm sector would have been difficult to ascertain. However, a 1972 internal report prepared for the Secretary of Agriculture by the Economic Research Service, found that loss of agency status would: (1) significantly reduce the marketability of FCS securities; (2) raise their cost 50 to 75 basis points to that of high-grade corporate bonds, and as much as 2 percentage points in the short term, thereby raising interest rates to farmers; (3) place significant pressure on other agricultural lenders including Government lenders; (4) cause some temporary turmoil in the banking industry and financial markets as investment portfolios adjusted; (5) possibly raise the cost of funds to corporate borrowers; and (6) have an adverse impact on farm income.

Proposals to alter the operating characteristics of the FCS need to be assessed in the context of their overall impact on the competitive balance of financial institutions, and the efficiency of product and financial markets. At this point, a balanced and comprehensive assessment of these overall impacts is still needed.

Deregulation and Government-sponsored Enterprises

Financial markets have undergone substantial revision since Federal credit assistance programs for agriculture were first put in place. The collapse of the banking system during the Depression led to a host of regulations felt necessary to ensure stability of the financial system. These regulations also reduced competition, especially in the banking industry, and created artificial barriers among financial institutions: banks, investment companies, savings and loans, and securities. Through the 1970's, financial market regulations

established in earlier periods were revised or discarded and new measures put in place to offset past inefficiencies.

The intents of laws shaping financial institutions and specialized credit institutions are quite similar. Regulation of the banking industry was necessary to ensure social goals associated with financial stability. Federal charters of specialized credit institutions conferred unique roles on those institutions to perform credit functions and to channel funds to groups or activities in ways designed to achieve social objectives. The activities of specialized credit institutions have also undergone a continuing process of adjustment to competitive market conditions.

Financial deregulation legislation enacted in 1980 and 1982 has reduced the artificial separation between financial intermediaries and has increased competition in financial services (34). The deregulatory changes will have a positive impact on overall stability of the financial system, provide greater flexibility to adapt to changing economic conditions and banking technologies, and reduce the specialization in savings and potential for funds leaving depository institutions for more profitable investments (12). The elimination of controls on interest rates should improve efficiency in the flow of funds in local markets and make loan pricing policies more responsive to national market conditions. Hence, while interest rates may become more volatile, affecting the cost of funds, loan funds are more likely to be available during periods of high interest rates (3).

All lending institutions will compete for the same pool of funds. For agriculture, it is likely that this competition will be elevated to national and secondary markets (4). Rural banks will remain viable, but will have to find ways to overcome increased risks and to develop new measures to achieve economies of scale in accessing lower cost funds (12).

Nondepository institutions, such as the FCS, were not covered by the recent financial deregulatory legislation, but stand to benefit from it. Because of increased risks and costs of funds to commercial banks, the competitive edge of the FCS is likely to improve vis-a-vis smaller rural banks (12, 15). Deregulation of depository institutions may place smaller rural banks at a competitive disadvantage in their local markets. If bank profits are squeezed to low levels, we will likely see a continuation in bank merging activity that would eventually reduce the variety of alternative credit sources in rural areas. Whether there is a need to reduce the distinctions between depository and nondepository institutions is a major issue raised by OMB and in the Congress. A report prepared by the House Committee on Banking, Finance, and Urban Affairs (39) states:

An elaborate framework of Federal and State restraints and protections was created to maintain this system of specialized financial institutions.

The report suggests that:

The marketplace is eroding the justification of this system of specialized financial institutions and its regulatory framework.

Examples of this erosion include a discussion of the wide range of financial services now offered or planned to be offered by such firms as Sears, Merrill-Lynch, and American Express. The report, however, does not address

the question of whether an unregulated market will provide perfect competition in credit markets.

In 1981 testimony before the Senate Committee on Banking, Housing, and Urban Affairs, Federal Reserve Chairman Paul Volcker offered a contrasting opinion. Volcker suggested that:

They (depository institutions) have certain competitive advantages and constraints; in those respects, depository institutions are, and should remain, different from other financial enterprises. In other words, there are limits on the degree to which competition of depository institutions with other institutions can be unfettered.

Recent proposals to modify the statutory or regulatory environment of the FCS are part of this larger set of deregulation issues and debates. These proposals should not be viewed in isolation, but should be judged in the context of changes occurring throughout the financial system.

CHARACTERISTICS AND PERFORMANCE OF AGRICULTURAL CREDIT MARKETS

Market Shares of Farm Debt

Market shares of farm debt by lending institution can change in response to a variety of conditions: interest rate differentials, legal restrictions, differences in services provided, and many others. This section identifies changes in market shares of farm debt and explores reasons for these changes.

Farm debt is provided by seven types of lenders: (1) the FCS (2) commercial banks, (3) individuals and others (I&Os)--merchants, dealers, individuals, and other lenders, (4) life insurance companies (LICs), (5) FmHA, (6) CCC, and (7) the Small Business Administration (SBA). The FCS accounted for 31.6 percent of all farm debt outstanding on January 1, 1984. Commercial banks held 22.1 percent of farm debt on that date. Loans outstanding to I&Os represented 23.8 percent. The LIC share was about 6 percent. Government lenders--the FmHA, CCC, and SBA--accounted for about 11.7 percent, 4.8 percent, and 1.1 percent of farm sector debt, respectively.

Farm Real Estate Debt

The FLB market share of all farm real estate loans increased steadily since 1960, reaching 43 percent on January 1, 1984 (table 7). This growth is explained by many factors, including lower average interest rates than other lenders, availability of loan funds, a specialization in farm real estate, and liberalization of their lending authorizations in the 1971 and 1980 legislation.

Interest rates have generally been lower at FLBs than for other institutional lenders due to their loan pricing practices and the efficiency of the FCS in general. Instead of charging borrowers the costs of additional funds (marginal cost pricing), the FCS banks base their charges on the average interest rate on all their bonds outstanding (average cost pricing). In periods of increasing interest rates, the FCS loan rates lag behind those of other lenders. Since interest rates have been generally rising throughout the post-war years, loans from FCS have been the least-cost source of institutional credit in recent years. Conversely, if interest rates decline over a long period, the FCS would have higher interest rates and their share could decline.

FLBs obtain the money they loan to farmers directly from the national financial markets, where they can generate virtually unlimited funds at the market interest rate. Therefore, they have not been subject to the same periodic shortages of credit faced by commercial banks.

Individuals and others are the second largest supplier of real estate debt capital. This category of lender is dominated by seller-financing of real estate sales. In 1960, individuals and others held almost 40 percent of total farm real estate debt. This share has declined steadily and currently stands at about 29 percent.

One probable cause for the decline in I&O market share in the farm real estate debt market is the declining liquidity of the asset structure of farmers. Real estate assets have grown in importance over time so that a farmer who retires in 1984 has more need for cash than one who retired in 1960. To the buyer of farmland, one of the most attractive features of having the purchase financed by the seller is the ability to use an installment contract which requires only a small downpayment. Yet this smaller downpayment represents less cash to the seller who has relatively few liquid assets to live on in retirement. In addition, sellers now have many alternative investment opportunities for sales receipts.

Life insurance companies have played an important, though declining, role in farm real estate debt markets. Their market share peaked at 25 percent in the late 1950's and declined steadily to 11 percent by 1984. The reasons for this decline include an increase in demand for policyholder loans, increased returns to nonfarm investments, and restrictive State usury laws.

Commercial banks are not heavily involved in the farm real estate debt market. Most of the liabilities of banks are short term; thus, they have little interest in long-term lending. Since 1960, banks have held, on average, between 12 percent and 13 percent of all farm real estate debt. Their share has fallen since 1980, and currently is estimated at about 8 percent.

The FmHA role in supplying real estate debt has increased in recent years. Throughout the 1960's and 1970's, FmHA's market share remained between 6 and 8 percent. Since 1979, its market share increased from 6 percent to 9 percent. The increase in the share of real estate debt held by FmHA was primarily due to growth of the economic emergency loan program which provided loans for real estate purposes.

The economic emergency lending levels have been reduced drastically. FmHA's market share will likely decline since the program expired on September 30, 1982.

Farm Nonreal Estate Debt

Commercial banks and PCAs are clearly the dominant lenders of nonreal estate farm debt capital (see table 8). Commercial bank market share increased steadily from 1962, when they held 36 percent of all farm nonreal estate debt, until it peaked in 1974 at 51 percent. The PCA market share increased throughout the 1960's until 1976 when it peaked at 26 percent. Since the mid-1970's, commercial banks in particular and PCAs to a lesser degree have lost market shares to Government lenders (FmHA and CCC). Commercial banks and PCAs currently hold about 37 percent and 18 percent of all nonreal estate farm debt, respectively.

Table 8--Nonreal estate debt and market share by lender, January 1, 1960-82

Year	Production Credit Associations		Farmers Home Administration		Federal Intermediate Credit Banks		Commercial banks		Individuals and others ^{1/}		CCC	
	Percent	\$ Billion	Percent	\$ Billion	Percent	\$ Billion	Percent	\$ Billion	Percent	\$ Billion		
1960	10	1.28	3	0.38	1	0.13	38	4.86	38	4.86	9	1.15
1961	11	1.47	3	.40	1	.13	37	4.96	37	4.96	10	1.34
1962	11	1.62	3	.44	1	.15	36	5.29	35	5.15	13	1.91
1963	11	1.79	3	.49	1	.16	37	6.03	35	5.71	13	2.12
1964	12	2.11	3	.53	1	.18	38	6.69	35	6.16	11	1.94
1965	13	2.31	4	.71	1	.18	39	6.94	35	6.23	9	1.60
1966	13	2.54	4	.78	1	.20	39	7.61	36	7.02	7	1.37
1967	14	2.94	4	.84	1	.21	41	8.61	35	7.35	6	1.26
1968	16	3.56	4	.89	1	.22	42	9.37	32	7.14	6	1.34
1969	17	3.91	4	.92	1	.23	42	9.66	25	5.75	12	2.76
1970	19	4.52	3	.71	1	.24	43	10.23	22	5.24	11	2.62
1971	22	5.32	3	.73	1	.24	46	11.13	20	4.84	8	1.94
1972	22	6.03	3	.82	1	.27	46	12.60	20	5.48	8	2.19
1973	22	6.56	3	.89	1	.30	48	14.30	20	5.96	6	1.79
1974	23	7.80	3	1.02	1	.34	51	17.29	20	6.78	2	.68
1975	26	9.59	3	1.11	1	.37	49	18.08	20	7.38	1	.37
1976	26	10.92	4	1.68	1	.42	48	20.16	20	8.40	1	.42
1977	25	12.18	4	1.95	1	.49	48	23.38	20	9.74	2	.97
1978	23	13.66	5	2.97	1	.59	43	25.54	21	12.47	8	4.75
1979	21	14.57	8	5.55	1	.69	41	28.45	21	14.57	8	5.55
1980	22	17.69	11	8.84	1	.80	39	31.36	21	16.88	6	4.82
1981	23	19.87	14	12.10	1	.86	37	31.97	21	18.14	6	5.18
1982	22	21.14	15	14.42	1	.96	34	32.67	20	19.22	8	7.69
1983	19	20.27	14	14.94	1	.85	34	36.28	18	19.21	14	14.94
1984 ^{2/}	18	18.58	15	15.48	1	.82	37	38.18	18	18.58	10	10.32

^{1/} Includes SBA loans. ^{2/} Preliminary.

Changes in market shares are related to changes in interest rate differentials. Numerous reasons for changing market shares have been suggested. Below-market rates for Government farm lending apparently reduced the demand for private farm credit.

As farms have become fewer and larger their individual credit requirements have grown rapidly. This development has made it increasingly difficult for small country banks to satisfy their customers' loan requests, given their legal lending limits, and to maintain their share of the market.

Changes in net farm income may influence the level of bank deposits and consequently a bank's ability to supply farm credit. This, of course, would produce a shift in the bank's supply function. Hence, low net farm income would have a negative impact on bank market share. However, this is now less of a factor since banks depend less on local sources of funds.

Bank liquidity problems can be an important factor in determining banks' ability to meet the demand for farm debt funds. The loan-deposit ratio is usually used as the principal index of bank liquidity. Hence, a high loan-deposit ratio indicates tight credit market conditions. Since 1975, the U.S. average loan-deposit ratio at agricultural banks rose from 56 percent to a peak of 68 percent in September 1979. It has since declined to about 58 percent.

The FmHA role has increased substantially since 1977, due primarily to expansion of FmHA emergency loan programs. Since the creation of the economic emergency program in 1978, FmHA's share of nonreal estate debt outstanding has grown from 5 percent to an estimated 15 percent. Disaster loans also showed a phenomenal rise. Outstanding disaster loans rose from \$2 billion in 1978 to \$10 billion in 1983. However, they are expected to decline considerably, reducing FmHA's share of nonreal estate farm debt.

CCC loans are primarily a tool of farm policy. However, they do substitute for commercial sources of debt funds. Since 1960, the share of farm nonreal estate debt held by CCC has ranged from 1 percent in 1976 to 14 percent in 1983. The current market share of CCC is estimated at about 10 percent.

The market share of individuals and other lenders is estimated to have declined steadily from 38 percent in 1960 to a current 18 percent. Merchants and dealers use credit to sell their products. Since credit activities are not their primary function, the availability of credit from these institutions is highly variable and often depends on economic conditions that determine whether credit will help sales.

Farmers have likely reduced their borrowing from friends and family. The size of individual farm borrowing needs grew as farm sizes increased. Some farmers' needs now exceed the lending limits of local banks and are very likely to be greater than what individuals can provide. Increases in the size of loans not only exceed the ability of individuals to lend, but also increase the need for recordkeeping to assure the legal enforcement of repayment. These costs make it more difficult for individuals to rationalize interest rates lower than those charged by institutional lenders.

Supply Performance of Agricultural Credit Markets

Agricultural credit programs were instituted over the first half of this century partly in response to perceived shortcomings of credit markets, especially as

they served farmers. There were serious problems on both the supply and demand side of agricultural credit markets. It is important to examine whether market failure still constitutes a legitimate premise for continuing Federal intervention in agricultural credit markets.

There are no definitive studies of credit market performance which address how well farm credit markets work. However, there have been major changes in those markets over the last 50 years. Agricultural finance experts agree that it is no longer generally true that farmers are seriously disadvantaged in their access to loanable funds relative to borrowers in other business sectors.

By the 1960's, it appeared that the supply side of credit markets were tilted in favor of farmers. The FCS banks were operating nationwide and had unlimited access to funds from major money markets; the banks were obtaining those funds at rates below those paid by most other borrowers. The gradual and substantial liberalization of FCS lending, based on the 1971 and 1980 Farm Credit Acts, assured qualified farm borrowers not only unlimited funds at competitive (and lower) rates but also with loan maturities and other benefits not available from private sources or to borrowers in other industries.

Competitive pressure from the FCS was one factor that led commercial banks to become more progressive and competitive for the farmers' credit business. In the last 20 years, banks have found many ways to overcome regulated loan limits, including participation with FCS banks and associations, development of more effective correspondent linkages with larger banks interested in farm loans, and formation of specialized agricultural credit companies. In addition, until the late 1970's, many farm borrowers were able to get funds from rural banks at interest rates well below prime rates because the rural banks were somewhat isolated and obtained loan funds from low-cost time deposits. Many banks hired farm loan specialists to improve credit services to farmers. These and other developments greatly improved the performance of commercial banks in serving farmers.

For farmers producing price-supported commodities, the flow of funds from CCC enables them to meet short-term cash or debt repayment needs. CCC funds find their way into bank deposits, thereby increasing bank liquidity and new credit available to bank borrowers, including farmers. The CCC has also provided loans, almost always at subsidized interest rates, for building farm grain handling and storage equipment.

Perhaps the most significant recent development impacting on the supply performance of credit institutions is the phased deregulation of financial institutions stemming from the Financial Deregulation and Monetary Control Act of 1980. The purpose of the act (as well as followup legislation in 1982) is to provide a more market-oriented, competitive financial environment. This should increase economic efficiency, allowing sources and uses of funds to flow more smoothly to and from economic sectors, geographic locations, and individual enterprises according to their ability to earn competitive rates of return.

For agriculture, deregulation has led to a closer interlocking of rural credit conditions with national, rather than regional and local, financial markets. Farmers are now less insulated from national monetary shocks, and increased interest rate volatility nationally has translated into increased volatility in local rates. Management strategies at rural banks must now include managing against changes in interest rates, as well as more traditional portfolio and balance sheet considerations. Also, FCS banks have always had access to

national markets, while small commercial rural banks have not. Deregulation will make commercial banks as a group more competitive and should halt or reverse their recent trend of declining market share. But, some of the smaller banks may not be able to compete easily or effectively in the new environment. Deregulation implies that credit crunches--a complete shut-off of credit to certain sectors--are a thing of the past, being replaced by less harmful credit squeezes whereby credit is rationed by price. Finally, financial deregulation means that U.S. agriculture will have to earn its access to credit in more direct competition with other sectors.

SUMMARY

Agriculture was undercapitalized until World War II because of inadequate financial markets. The Federal Government increased the supply of credit by creating special institutions and programs serving agriculture. This infusion of credit helped finance the technological revolution of U.S. agriculture. Farmers continue to have easier access to capital markets and at lower interest rates than most other sectors.

Farm debt is provided by seven types of lenders: (1) the Farm Credit System--FCS (accounting for almost 31.6 percent of all farm debt outstanding on January 1, 1984), (2) commercial banks (22.1 percent), (3) merchants, dealers, individuals, and other lenders (23.8 percent), (4) life insurance companies (6 percent), (5) Farmers Home Administration--FmHA (11.7 percent), (6) the Commodity Credit Corporation--CCC (4.8 percent), and (7) Small Business Administration--SBA (1.1 percent).

Primary Federal lenders to the farm sector are the CCC, FmHA, and the FCS banks. These special credit programs and government-sponsored agency were created on two premises: (1) social priorities and objectives that the private credit market would not serve, and (2) imperfections in the markets which curb lending to certain groups, regions, or sectors and create a credit gap. Social objectives of the Federal credit programs included promoting farmownership, checking the rise in tenancy, and strengthening the economic position of farmers in general.

The public can benefit when the Government attempts to remedy a credit gap or other market imperfections. If credit gaps distort the flow of loanable funds from socially optimum patterns, correction of the distortion improves resource allocation. Signs of credit gaps include: chronic credit rationing, cyclical credit rationing, direct calculation of returns, discontinuities in credit terms, and differences in interest rates not proportional to costs or risks.

The Federal Government provides farm credit assistance under four major categories: (1) Government-sponsored credit agencies (FCS), (2) Government-insured loan programs (FmHA), (3) Government-guaranteed loan programs (FmHA and SBA), and (4) direct loans (FmHA). Federal lending to all sectors now approaches \$90 billion and is close to 20 percent of funds advanced in national financial markets. The amount of the total subsidy resulting from reduced rates and extended maturities resulting from only direct loans in 1983 is estimated at \$8.4 billion, with agriculture receiving 71 percent and farmers alone 20 percent, or \$1.7 billion.

Problems that Federal credit programs addressed have been significantly reduced. Farm tenancy problems have been largely resolved. Despite the current economic

difficulties of many farmers, farm income and returns often compare favorably with those in the nonfarm sector. Barriers to farmownership are not primarily due to a credit gap or insufficient financial resources. Innovations of Federal credit agencies, such as lower down payments, extended maturities, and systematic amortization of principal have been widely adopted by commercial lenders.

Phased deregulation of banking institutions constitutes one of the more significant recent developments affecting the supply of agricultural credit. Elimination of controls on interest should improve efficiency in the flow of funds in local markets and make pricing policies more responsive to national market conditions. Deregulation means that agriculture will more directly compete with other sectors of the economy for access to credit.

REFERENCES

1. Abel, M.E., and A.S. Royko. World Food Situation, Prospects for World Grain Production, Consumption, and Trade. FAER-35. U.S. Dept. Agr., 1967.
2. Baker, C.B. "Finance and Farmers: Emerging Issues and the Changing Environment." Snyder Memorial Lecture, Purdue University, February 22, 1984. Baker makes references to Carver's comment in Agricultural Credit, E.S. Sparks, 1932.
3. Barry, Peter J. "Agricultural Lending by Commercial Banks," Agricultural Finance Review, Vol. 41, July 1981.
4. Barry, Peter J. "Impacts of Regulatory Change on Financial Market for Agriculture," American Journal of Agricultural Economics, Vol. 63, No. 5, Dec. 1981.
5. Benner, Claude L. "Has Rural Credit Gone Far Enough and in the Right Direction," Journal of Farm Economics, Vol. 7, 1925.
6. Black, A. G. "Some Current Problems in Agricultural Credit," Journal of Farm Economics, Vol. 23, 1941.
7. Brake, John R. "A Perspective on Federal Involvement in Agricultural Credit Programs," South Dakota Law Review, Vol. 19, Summer 1974.
8. Brake, John R., and Emanuel Melichar. "Agricultural Finance and Capital Markets." A Survey of Agricultural Economics Literature: Vol. 1, Traditional Fields of Agricultural Economics, 1940s to 1970s. Lee Martin (ed.), Univ. Minn. Press, 1977.
9. Commission on Money and Credit. "Federal Credit Programs," Money and Credit: Their Influence on Jobs, Prices, and Growth. Chapter Seven. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
10. Council of Economic Advisors. "Financial Market Deregulation," Economic Report of the President. 1984.
11. Eliot, Clara. The Farmer's Campaign for Credit. D. Appleton and Co., New York, 1927.
12. Garcia, Gillian. "Deregulation and Monetary Control: Implications for Agricultural Finance," FCA Research Journal, Farm Credit Adm., Nov. 1981.
13. Hathaway, Dale E. "The Federal Credit Programs for Individual Farm Development," Federal Credit Agencies. Research Study Five. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
14. Heady, E. O., L. U. Mayer, and H. C. Madsen. Future Farm Programs. Ames: Iowa State Univ Press, 1972.
15. Herring, John D. The Farm Credit System and Other Forces' Effect on Rural Banks in Agricultural Credit. Comptroller of the Currency, Sept. 1982.

16. Hoag, W. Gifford. The Farm Credit System: A History of Financial Self-Help. Danville: Interstate Printers and Publishers, Inc., 1976.
17. Holt, W. Stull. The Federal Farm Loan Bureau, Its History, Activity, and Organization. Institute for Government Research. Service Monograph of the U.S. Government, No. 34. Baltimore: Johns Hopkins Press, 1924.
18. Hottel, Bruce. "The Commodity Credit Corporation and Agricultural Lending," Agricultural Finance Review. Vol. 41, July 1981.
19. Hughes, Dean W. "Financial Condition of Agricultural Lenders in a Time of Financial Stress," Economic Review, Federal Reserve Bank of Kansas City. July-Aug. 1983.
20. Johnson, D. Gale. "Agricultural Credit, Capital and Credit Policy in the United States," Federal Credit Programs. Research Study Four. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
21. Johnson, D. Gale. "The Credit Programs Supervised by the Farm Credit Administration." Federal Credit Agencies. Research Study Four. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
22. Johnson, Stewart. "Statistics on Federal Lending and Loan Insurance Programs in the United States, 1929-1958," Federal Credit Programs. Research Study One. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
23. Law, Warren A. "The Aggregate Impact of Federal Credit Programs on the Economy," Federal Credit Programs. Research Study Two. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
24. Lee, John E., Jr. "The Money Market--Is It Adequate for the Needs of Today's Agriculture?" Agricultural Finance Review, Vol. 32, Aug. 1971.
25. Lee, John E., Jr., Stephen C. Gabriel, and Michael D. Boehlje, "Public Policy Toward Agricultural Credit." Paper presented at Future Sources of Loanable Funds for Agricultural Banks, Kansas City, Mo., Dec. 1980.
26. Lins, D. A. "Credit Availability Effects on the Structure of Farming," Structure Issues of American Agriculture. AER-438. U.S. Dept. Agr., 1979.
27. McCroskey, Jack. "Federal Credit Programs for Small Business," Federal Credit Agencies. Research Study Seven. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
28. McKie, James W. "Credit Gaps and Federal Credit Programs." Federal Credit Programs. Research Study Four. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
29. McKie, James W. "Credit Gaps and Federal Credit Programs," Federal Credit Programs. Research Study Three. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.

30. Melichar, Emanuel. "Farm Finance--Current Developments in Perspective," Agricultural Finance Commentary. Washington: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Nov. 1977.
31. Melichar, Emanuel. "A Financial Perspective on Agriculture," Federal Reserve Bulletin. Jan. 1984.
32. Office of Management of Budget. Special Analyses: Budget of the United States Government, FY-1985. Feb. 1984.
33. Pederson, Glenn D., and John R. Brake. The Distribution of Financial Impacts of Alternative Agricultural Credit Policies. Research Report No. 424. Mich. State Univ. Agr. Exp. Stat., Feb. 1982.
34. Rosenblum, Harvey. "The Changing Nature of Financial Markets and the Implications for Credit Flows in Rural Areas," Rural Financial Markets: Research Issues for the 1980's. Conference Proceedings, Federal Reserve Bank of Chicago, Dec. 9-10, 1982.
35. Saulnier, R.J., H.G. Halcrow, and N.H. Jacoby. Federal Lending and Loan Insurance. National Bureau of Economic Research. Princeton: Princeton Univ. Press, 1958.
36. Turner, Robert C., and Ross M. Robertson. "Sources of Funds Available to Federal Lending Agencies," Federal Credit Programs. Research Study Six. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
37. Tweeten, L. G., and C. L. Quance. "Express Capacity and Adjustment Potential in U.S. Agriculture." Agricultural Economic Research, 24:57-66, July 1972.
38. U.S. Department of Agriculture, Economic Research Service. Agricultural Finance Outlook and Situation. AFO-24. Dec. 1983.
39. U.S. House of Representatives. Financial Institutions in a Revolutionary Era, Committee Print 97-8, Committee on Banking, Finance, and Urban Affairs, Oct. 1981.
40. Weston, J. Fred. "Analysis of the Technical Components of the Federal Credit Programs," Federal Credit Programs. Research Study Seven. Commission on Money and Credit. Englewood Cliffs, N.J.: Prentice-Hall, 1963.

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- 12. Office of Management of Budget, Federal Budget of the United States Government, FY-1984, Feb. 1983.
- 13. Richard M. French, D. Sc., and John A. Fisher, The Distribution of Industrial Factors of Agricultural Production, U.S. Government Printing Office, Washington, D.C., 1982.
- 14. Roschman, Harvey, "The Changing Pattern of Farm and Ranch Land Use: Implications for Credit Policy in Rural Areas," Federal Reserve Bank of Chicago, Dec. 7-10, 1982.
- 15. Samuelson, R.L., D. Sc., and R.A. Lusk, Federal Land Use and Policy, Indiana, National Bureau of Economic Research, Princeton, N.J., 1982.
- 16. Turner, Robert C., and Robert H. Robertson, "Currents of Funds Available to Rural Lending Agencies," Federal Reserve Bank of St. Louis, Commission on Money and Credit, Englewood Cliffs, N.J.: Prentice-Hall, 1982.
- 17. Iverson, J. C., and E. L. Gorman, "Eastern Canada and Agriculture: Potential in U.S. Agriculture," Agricultural Economic Research, 24:2-3, July 1972.
- 18. U.S. Department of Agriculture, Economic Research Service, Agricultural Finance Outlook and Situation, 470-25, Dec. 1982.
- 19. U.S. House of Representatives, Financial Institutions in a Revolutionary Era, Committee Print 97-2, Committee on Banking, Finance, and Urban Affairs, Oct. 1981.
- 20. Wason, J. Fred, "Analysis of the Technical Components of the Rural Credit Program," Federal Reserve Bank of St. Louis, Commission on Money and Credit, Englewood Cliffs, N.J.: Prentice-Hall, 1982.