

FINANCING NORTHEAST AGRICULTURE IN THE YEARS AHEAD

BY

EDDY L. LADUE

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Eddy L. LaDue^{2/}

Appropriate financing is important to the long run health of Northeast Agriculture. Only with efficient units and proper resource movements will the industry be able to successfully compete with agriculture in other geographic areas and contribute to the economic well-being of the Northeast, particularly the rural areas of the Northeast. In order for individual firms to operate efficiently and for the flow of individuals and resources into and out of the industry to occur as needed, appropriate financing must be available.

There are many facets to the appropriate financing of agriculture in the years ahead. Some problems will undoubtedly occur that we do not foresee at this time, and some issues that are now perceived to be paramount will turn out to be only temporary aberrations of a smoothly functioning system. The objective of this paper is to lay out some of the issues that we now expect to impinge on the appropriate future financing of agriculture in the Northeast and discuss some of the implications of these issues.

Projected Credit Needs

Whenever one thinks about financing of agriculture in the future, the first issue to surface in many people's minds is how much credit will be needed and will it be available from normal credit suppliers. The changes in Northeast farm debt outstanding that occurred during the last seven years are contained in the balance sheets presented by Professor Fedeler. The annual rates of change in asset and

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^{2/} Associate Professor, Department of Agricultural Economics, Cornell University

debt items between 1970 and 1977 as indicated in those balance sheets are presented in Table 1. During that period assets increased by an average of 10.5 percent per year while debts increased by 9.3 percent. Real estate debt increased more rapidly than nonreal estate debt.

Future credit needs depend upon general rates of inflation in the economy, the relative strength of demands for resources used in and produced by agriculture, structural and technical changes in the various production sectors of agriculture, and many other factors. Table 1 presents three different 1990 balance sheets for the Northeast farming sector based on alternate scenarios for the future which imply different sets of assumptions about these factors.

The first scenario assumes that the changes that were taking place during the recent past will continue through 1990. That is, each asset and debt item will continue to experience annual increases similar to that experienced during the 1970-77 period. Under this scenario the importance of real estate in the asset structure increases and the credit requirements of agriculture would rise by nearly \$10 billion, nearly a 300 percent increase.

The second, and more conservative, scenario assumes that all asset and debt items will increase at an annual average rate of 6 percent. This would result in an asset and debt structure identical to that of 1977 but still indicates a more than doubling of the credit requirements of agriculture.

The third scenario, titled "modified trend" is the author's best estimate of what may happen. Under this scenario it is assumed that the general rate of inflation in the economy is 7 percent and that most asset items will move with the general rate of inflation. The strong demand for land for a variety of uses is expected to cause real estate prices to rise more rapidly than the general rate of inflation. However, the relatively modest quality of land and cool climate will likely cause real estate values to rise less rapidly in the Northeast than

Balance Sheet of the Northeast Farming Sector
1977 and Alternate Projections for 1990

Table 1

Item	Annual Rate of Change 1970-77	Actual 1977	Estimated 1990 Based on:		
			1970-77 Rate of Change	6% Rate of Change	Modified Trend ^{1/}
	percent		- - - - -billion dollars- - - - -		
ASSETS					
Physical assets:					
Real Estate	12.1	22.9	101.0	48.8	62.2
Nonreal Estate					
Livestock	5.1	1.8	3.5	3.9	4.5
Machinery	11.9	4.9	21.0	10.4	11.7
Crops	9.7	1.1	3.7	2.4	2.7
Household	5.7	1.2	2.5	2.6	2.9
Financial Assets:					
Deposits	- 0.6	.7	.7	1.6	1.6
U.S. Savings Bonds	- 6.1	.2	.1	.4	.1
Investments	7.7	.7	1.8	1.5	1.7
TOTAL ASSETS	10.5	33.5	134.3	71.6	87.4
LIABILITIES					
Real Estate Debt	10.7	2.5	9.2	5.2	8.5
Nonreal Estate Debt	7.7	1.9	5.0	4.1	5.2
TOTAL LIABILITIES	9.3	4.4	14.2	9.3	13.7
PROPRIETOR'S EQUITIES	10.7	29.1	120.1	62.3	73.7
TOTAL CLAIMS	10.5	33.5	134.3	71.6	87.4
Percent equity		87	89	87	84

^{1/} Assumes (1) a 7 percent increase in all assets except real estate, deposits and U.S. Savings Bonds which increase at 8, 6 and -5 percent respectively, and (2) increases of 10 and 8 percent, respectively, for real estate debt and nonreal estate debt.

in much of the rest of the nation. These factors led to use of an 8 percent rate of increase in real estate prices. Deposits and currency will be increased by the higher dollar volume of business but the rate of increase will be limited by a shift of these idle or low earning resources into other investments.

The greater importance of real estate in the asset structure and a continued shift towards more use of real estate debt to limit repayment requirements are expected to result in a continued rapid rate of increase in real estate debt. A sustained trend toward aggregation of farm units into larger entities is expected to cause debt to increase somewhat more rapidly than assets.

A review of the debt levels indicated in the three scenarios indicates that farm debt in the northeast could double and will quite likely triple between 1977 and 1990. A change of this magnitude represents a monumental task for agricultural lenders. However, there is little reason for concern about the ability of the credit community to provide this level of credit. The Farm Credit System has good access to national capital markets and has been able to provide the expanded capital needs of the system, that have occurred during the last few years, with relative ease. The Farmers Home Administration has the legislative authority to provide credit to all but the largest farmers in times of economic emergency. Other institutional lenders have shown the capacity to expand the level of credit supplied whenever the need and ability to pay market interest rates is present. In addition, individuals continue to be an important source of credit and can expand certain types of credit (for example, seller financing) if the need arises.

Historical attempts to look at future credit needs at either the state or national level have frequently resulted in projected credit levels that shocked many readers and possibly even the researcher. For example, after such an effort in 1966, Brake [1] indicated that ". . . one of the most interesting questions for consideration is whether farm credit agencies . . . can adapt themselves to meet

the future needs of American Agriculture." His 1980 estimate of total U.S. Farm debt was passed in 1977 with little apparent stress on the agricultural credit community. The farm credit agencies appear to have adapted quite well. In addition, since most of the expected increase in debt results from inflation of the U.S. dollar, existing credit agencies will likely be able to fulfill the future credit needs of Northeast Agriculture without real difficulty.

Farm Profitability

An important factor influencing the availability of credit to agriculture is farm profitability. Higher debt levels are sustainable only if the level of profitability of Northeast Agriculture is sufficient to allow farmers to make the debt service payments the higher level of debt implies.

The ratio of debt to net farm income for the Northeast was 2.8 for the three years 1970-72 and 4.4 for 1975-77. For the same time period for the United States the ratio increased from 3.5 to approximately 4.4. The increase in the ratio of debt to income implies a deterioration in the ability of farmers to make debt payments. Off farm income of farm families has been increasing during this period and, thus, the deterioration is not as severe as implied by the sharp increase in the debt to farm income ratio. But, the ratio of farm debt to disposable personal income of the farm population also increased between 1970-72 and 1975-77.

Rising interest rates are also contributing to the farm debt service burden. The combined effect of higher debt and higher interest rates resulted in a doubling of the importance of interest expense as a production cost. Interest expense as a percentage of total U.S. farm production expenses rose from 4.0 for 1955-57 to 8.8 in 1975-77. In 1977 the percentage reached a high of 9.7.

Strong farm incomes will be necessary to support the higher future debt service costs that are expected. Short term economic outlook for Northeast Agriculture is quite favorable and the trend in the debt to income ratio experienced in the

1970-77 period appears to be stopped. However, continued efforts to maintain a healthy income situation will be necessary to insure the availability of sufficient capital for agriculture. If agriculture is profitable, there will be no shortage of funds to finance it.

Financing Entry

The existence of sufficient capital to meet the gross credit needs of agriculture does not insure adequate financing for all participants or potential participants in the agricultural system, nor does it imply that there are no financing problems in the sector. One potential problem area for which concern is frequently expressed is the difficulty of getting started in farming. Average per farm investment has about doubled every 10 years since the 1940's leading many to conclude that financing entry into farming is becoming increasingly difficult. Getting started in farming is hard but it is likely not significantly more difficult to get started than it was 25 years ago. In addition, it is probably not more difficult to get established in farming than in most other small businesses.

There are a multitude of techniques used to obtain control of sufficient resources to enter agriculture. Many, such as a father-son partnership, seller financing and inheritance, depend upon a special relationship between the buyer and seller. There is little reason to believe that these techniques are any more or less difficult to initiate now than they were years ago. However, potential entrants without these opportunities must accumulate some equity in order to gain control of sufficient resources to enter agriculture, regardless of their initial level of production.

The rapid rise in per farm investment, referred to earlier, has been accompanied by continued improvement in credit terms. Typical downpayments required by conventional lenders have dropped from 50 percent on real estate and 60 percent on nonreal estate to 25 and 40 percent, respectively. This decline in downpayment

requirements has offset the increased initial farm investment so that when wage rates are compared to the downpayment requirements for an average set of resources (Table 2), it becomes obvious that there was little change in the difficulty of accumulating equity to obtain an initial set of resources between the early 1950's and the early 1970's. Although the data in Table 2 relate to purchase of an average full time farm, the general relationship between potential savings from employment and farm investment applies to any level of initial resources. For example, if a particular entry procedure involves initially renting land and purchasing machinery equal to 30 percent of average farm investment, the difficulty of doing this changed little between the early 1950's and early 1970's.

Indicators of the Difficulty of Getting Started
in Farming with Representative Institutional Credit Terms^{a/}
United States Average, 1945-77

Table 2

Years	Time Required to Accumulate Downpayment ^{b/}		Repayment Capacity Generating Efficiency Required To Repay Maximum Loan ^{c/}
	Total Farm	Nonreal Estate Only	
	- - - - -Years- - - - -		
1945-49	10.4	3.3	2.6
1950-54	16.4	5.5	7.7
1955-59	19.5	5.2	13.5
1960-64	22.5	5.6	3.4
1965-69	20.7	5.2	2.0
1970-74	17.6	5.9	1.6
1975-77	35.9	10.7	2.5

^{a/} Excluding Farmers Home Administration

^{b/} At a wage rate 2.5 times that received by the average farm laborer.

^{c/} Repayment capacity required to make payments on an average farm as a multiple of the capacity generated by the average farmer. For example, in 1945-49 the average farmer had \$885 available for principal and interest payments on debt but the amount required to make the payments on the maximum loan that most institutional lenders would grant was \$2300 (\$885 x 2.6).

The 1975-77 years were a period of unusually rapid increases in farm values. Thus, the Table 2 data for that time period imply a sharp increase in the difficulty of accumulating a downpayment. However, this only represents a three year period and likely overstates the changes that have taken place. It may represent little more than a "blip" in the relatively straight line through time indicating the relative difficulty of accumulating the initial downpayment. If this does represent a sharp departure from the past, even lower downpayment percentages, and possibly more 100 percent initial financing, will be needed.

As Dr. Fedeler indicated in his paper, a number of changes have been made in the Farmers Home Administration (FmHA) loan programs. The limited resource program and the higher interest rate on ordinary ownership loans can be expected to increase the funds available for beginning farmers. Potentially more important, however, is the FmHA's authority to guarantee high risk loans made by conventional lenders at normal interest rates. Under this program a potential farmer's normal lender could provide the low equity financing that is needed and have the FmHA guarantee enough of the loan such that the risk of the loan is bearable to the lender. Conventional lenders have made and can be expected to continue to make a large number of low equity loans to potential farmers without government guarantees. But, the current FmHA authority should allow these lenders to expand their activity as needed.

Making the Payments

The second step in getting started in farming, after obtaining an initial set of resources, is making the debt payments on the resources used. In general, an average farm does not generate sufficient repayment capacity to make payments on 100 percent debt on an average farm's assets. In the late 1940's, a farm had to generate 2.6 times as much money for interest and principal payments as that generated by the average farm in order to make the payments on a maximum loan by a conventional lender (Table 2). The repayment capacity of the average farm was \$885, but the

amount needed to make payments on a maximum loan on an average sized farm was \$2300. Thus, to make payments, an average sized farm had to generate 2.6 times as much repayment capacity ($\$2300 \div \$885 = 2.6$) as the average farm. The required multiple of average repayment capacity increased during the 1950's and early 1960's but has now returned to at or below the late 1940's level. This indicates that the net profitability of agriculture is not sharply lower than it was in the late 1940's. However, improved credit terms, particularly longer repayment periods for intermediate term loans, have been major contributors to the relatively favorable repayment situation that currently exists. Regardless of whether a potential farmer enters a partnership with his father, gets a purchase contract from the former owner, obtains low equity financing from his normal lender or obtains an FmHA loan, his relative ability to make the required debt payments on borrowed funds is not much different than it was in the late 1940's.

The real problem for most potential entrants is a lack of knowledge about the various techniques that can be used to get financing for an entry into agriculture and lack of understanding of how to choose and implement the appropriate technique for them. A combined research and extension effort could help alleviate this problem.

Financing Exit

Financing the exit from agriculture is in many ways closely tied to the fortunes of new entrants. For example, a father-son partnership can be instrumental in helping the son enter and the father exit. The financial problems of exit are usually related to managing cash flows, financial efficiency in converting accumulated net worth into retirement income, financial independence and security and other similar issues. While extension people in many of the states in the Northeast have worked with numerous farm families, the amount of research effort expended in this area is minimal. In fact so little research has been done that we are not certain what the

real problems are. With the increasing complexity of tax laws and the longer lives of many family members, research is needed to assess the impact of alternate estate tax legislation and to determine improved exit procedures for families with various levels and types of resources and exit goals.

Public Sector Financing

As indicated earlier in this paper, and by Professor Fedeler, the 1978 Farm Credit Act has significantly expanded the Farmers Home Administration's capacity to serve agriculture. Even prior to passage of this act the administration responded to farmer expressed concern that low farm prices would place them in considerable financial difficulty by administratively emphasizing maximum use of the loan authority they already had. This procedure allowed them to rapidly expand outstanding FmHA volume.

National FmHA loan volume increased over 50 percent to nearly \$10 billion between June of 1977 and June of 1978. For the four major farm programs (farm ownership, operating, emergency and soil and water). This is the highest rate of increase in government credit to farmers since FmHA's predecessor agency, The Farm Security Administration, started making real estate loans to farmers in the early 1940's (some nonreal estate loans were made prior to that time). However, the \$10 billion seriously understates the increase in public sector financing since, as pointed out by Professor Fedeler, the Small Business Administration, Commodity Credit Corporation and Agricultural Stabilization and Conservation Service all had substantial increases in loan volume during the same period.

The expansion in FmHA loan volume in the 10 northeastern states has occurred at about the same rate as has the rest of the nation; loan volume in the four major programs increased from \$342 million in June of 1977 to \$524 million in June of 1978. The Farm Credit Act of 1978 provides the capacity for further expansion.

The FmHA is an important factor in the financing of agriculture, certainly more important than its relatively small share of the total farm credit volume would imply. It assists with establishment of entrants in agriculture, serves as a lender of last resort for farmers other lenders are unwilling to serve, provides emergency farm credit during times of physical disaster and economic stress and provides housing and other loans to help rural residents and communities. However, the rapid expansion in volume must have a large impact on merchant credit outstanding, other institutional lenders and economic activity in the community, as well as on the farmer's borrower. Given the unusual nature of this large increase in government credit, its various impacts, both direct and indirect, need to be studied in detail. Information on the characteristics of those served relative to the total population of those who might be served would help in directing credit toward those most in need. Also, although it is difficult to define, an optimum level of government credit must exist. There is need for research on what that optimum is and to what degree we are working towards it.

Density of Agricultural Production

The density of agricultural production in many regions of the northeast is low. In some areas of the region production occurs in valleys and on pockets of good land that, although productive, do not concentrate sufficient agricultural production within reasonable driving distance of any particular office location to allow efficient use of a complete complement of agricultural services. This problem is being aggravated by continued farm expansion. Areas that used to have sufficient farms to warrant a complete, competitive complement of agricultural services are finding that although the output from agriculture in the region is as large or larger than in the past, the number of farm businesses is much smaller. Thus, the loans to be made in the community are larger in size but smaller in number. Since the time required to properly service a loan increases little as loan size expands,

the amount of farm credit business in a particular community may be insufficient to fully employ a loan officer at two or more competing offices, and sometimes, even one office.

Lack of farm loan volume forces lenders to look for alternate business activity for their loan officers. Thus, banks add commercial loans or some other activity to the loan officer's responsibility. When the level of farm activity at that institution gets low enough the agricultural loan officer, who also makes commercial loans, may be replaced by a commercial loan officer, who also makes farm loans. The bank loses its agricultural expertise and agricultural loan volume declines further. This type of process can cause farms to become odd business for many institutions. They serve few farmers, and thus, frequently do not serve them well.

The reaction of the Farm Credit System to the expanding size and contracting number of farms has been to add rural housing and other activities to their service offerings. In the long run, this can be expected to reduce the focus on agriculture-- even for the Farm Credit System. Insurance companies are already inactive in much of the northeast because of low density and type of productive agriculture.

Maintaining Competition Among Creditors

The most effective way of insuring that credit is available to those who need and deserve it is to maintain effective competition among lenders. With more than one lender interested in each farmer's business, the problems caused by such problems as personality differences, personal bias, lack of initiative and narrow views of what can be done in farming are minimized. Without competition there is a strong tendency for the lender to become over conservative, resist all new ideas and serve only those he/she gets along with. The Northeast has more reason to be concerned about lack of competition among lenders than does much of the rest of the nation.

Obviously, the declining density of agricultural production has a negative impact on competition. Another factor that can be important is expanding public sector credit. In areas where the total credit volume can only minimally support a competitive private credit market, expansion of public credit may stifle competition by reducing the size of the credit market so that only one private creditor can survive. In some areas of the northeast a significant expansion of public credit could effectively force out the entire private agricultural credit system leaving public credit as the only alternative. Private lenders cannot compete with public credit for any loan the public decides to make. Public sector guarantees of private credit, however, could have the opposite impact. Judicious use of guarantees could expand the total private credit market by assuming some of the risk for borrowers that would otherwise be too risky for private lenders to service.

As Dr. Fedeler indicated in his paper, the inability of other lenders to compete with the Farm Credit System is also a deterrent to effective competition in some parts of the northeast. The Farm Credit System is a well organized, well managed organization that makes service to agriculture its business. Its low cost of funds and agricultural orientation make it a fierce competitor for other private lenders. I do not want to even imply that in the interest of fostering competition we should place roadblocks in its path. However, efforts could be made to improve the competitive capacity of other lenders. For example, usury limitations that exist in some states could be eliminated and banks and insurance companies could be given the authority to make variable interest and variable repayment loans.

Northeast banks have a particular problem with the availability of long-term funds. Since most bank loan funds are received on a short-term basis, banks must stay liquid and therefore prefer to have much of their agricultural loan volume on a short or intermediate term basis. Banks in much of the rest of the country are able to team up with either an insurance company or the Federal Land Banks (FLB) and have

them provide the long-term funds. However, insurance companies are not very active in the northeast and one loan officer represents both FLB and Production Credit so that teaming with FLB exposes the bank to a decided risk of losing the customer to the Farm Credit System that can serve all of the farmer's credit needs. This lack of long-term credit alternatives has led Northeast banks to make more long-term loans than are made by banks in most of the rest of the United States. However, an alternate source of long-term capital could place banks in a decidedly more competitive position.

Other Issues

The Northeast does not have the institutional capacity for moving nonagricultural money into farming that exists in other areas. The proximity of prosperous metropolitan areas represents a large reservoir of nonfarm capital but little of it actually moves into agriculture in a useful way. The dairy focus of the region makes investment in land less attractive. The buildings and storage structures which make up a significant part of most real estate investment, are hard to value, depreciate over time and can only be easily ruined by the wrong tenant. Further the region differs from much of the rest of the nation in that it does not have a well developed system of management services that can be hired to assist with or take over the management function. These characteristics of the region make it difficult to productively invest nonfarm capital in agriculture, but such investment may represent a capital source that could be harnessed.

The federal government now has numerous proposals for replacing the current disaster assistance programs, including emergency credit programs, with a federally subsidized insurance program. As now proposed this is essentially a crop insurance scheme that covers only a limited number of crops. Since it covers only crops, the northeast which has a largely animal based agriculture could benefit or it could be significantly negatively impacted. In addition, many of the fruit and vegetable

crops that are grown in the northeast would not be covered. In the interest of protecting its competitive position, the northeast needs to research these proposals relative to their impact on the Northeast and then make its views clear to the policy makers in Washington. This will include convincing bureaucrats and legislators that northeast agriculture is important to both the northeast and the nation.

Summary and Research Suggestions

The credit required by Northeast Agriculture will at least double and could quadruple by 1990. Although this represents a tremendous task for current credit institutions, historical evidence indicates they will be able to meet the total gross needs of agriculture as long as agriculture is sufficiently profitable to allow payment of market rates of interest on loans.

Entry into agriculture was difficult 30 years ago, it is still difficult today. However, the evidence indicates that it is likely not more difficult now than it was then. Many techniques are used to get started in farming and these are not well understood by potential entrants nor their advisors. Research is needed to isolate the various techniques used, investigate how they are implemented, and determine the frequency and character of success with each technique. Research on the process of exit from agriculture should also receive high priority. With people living longer an increasing number of farmers are finding that they are in a position to retire. There is a need to improve farmers' ability to develop procedures for an efficient and successful exit from farming.

In response to distress signals from the agricultural community, public sector credit has increased sharply since late 1977. The impacts of this sudden surge of public credit on farmers, communities, farm suppliers and private credit market need to be examined. In addition some thought should be given to the optimal level and character of public sector financing in relation to both farmers' needs and the capacities of other lending institutions.

The low density of agricultural producers in many areas of the northeast make it difficult to maintain credit institutions with an understanding of and interest in agriculture. Expanding farm size has aggravated this problem by significantly reducing the number of agricultural producers in any given area. Also, increases in public sector credit have siphoned off some of each credit market making the private sector market smaller in many areas.

Even in areas where the farm credit market is large enough to maintain farm oriented lenders, appropriate competition among private lending institutions may be lacking. The major reason for this is the strength of the Farm Credit System which functions so well that it can unintentionally force other lenders from the market. To address this problem legislation is needed to allow banks and other lenders to be more competitive. For example, usury rate limitation could be eliminated and variable interest and repayment plans could be authorized. Research on the specific characteristics of these changes would help in appropriate specification of the needed legislation. If such legislation is not passed, or is not completely effective, research on the role and responsibilities of the Farm Credit System as the sole or dominant lender will be needed.

In the interest of insuring adequate future financing of agriculture in the northeast, research is also needed on (1) methods of harnessing nonfarm capital that exists in the region, (2) the impact of replacing emergency credit and other federal disaster programs with subsidized crop insurance and (3) the impact of usury rates on credit available to agriculture.

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