

# Financing Agriculture in the 1980s

*By Marvin Duncan*

The nation's agricultural sector has grown rapidly in recent years, in both its productive capacity and the value of the assets it controls. Credit to finance capital investment and production inputs has been central to that growth. Because farmers have become large users of borrowed capital to supplement their own resources in farming, because biological production cycles in agriculture make the timing of credit availability so important, and because the price and the terms of credit to farmers are important mechanisms by which farmers are linked to broader economic policies, it is fitting that attention be given to the issue of financing agriculture in the 1980s as a part of its discussion of farm policy alternatives.

America's farmers appear to be on the verge of an economic recovery after the most serious and prolonged period of financial stress in more than 40 years. Net farm income is ex-

pected to improve only moderately this year, perhaps to the \$25 to \$29 billion range. But that will still not bring farm profitability anywhere near the \$32.3 billion earned in 1979. The rather modest improvement in income will be due to three factors: slightly higher livestock cash receipts, improved crop prices, and reduced expenditures for nonfarm production inputs. The last two factors can be attributed to the payment in kind (PIK) program.

The 1983 improvement in farm income will come largely as a result of unprecedented farm program expenditures, which apart from PIK are expected to reach \$21 billion this year. Depending how PIK is handled in government accounting, another \$11 billion could be added to the cost of the 1983 program. By comparison, government farm program expenditures amounted to \$11.7 billion in 1982 and \$4.0 billion in 1981. Yet, despite massive costs, the effect on farm income has been modest. Indeed, hopes for significant and sustainable improvement in farm income continue to rest on improved performance in the economies of the United States and its trading partners.

The recent period of income stress has also spawned some serious financial problems for farmers. Farmers either leaving farming or selling part of their capital assets as a result of financial stress represent a substantially larger

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**TABLE 1**  
**Farm Debt**

(Percent of total on January 1)

REAL ESTATE						
Year	Total	Federal	Life	Banks	Farmers	Individuals
	Amount (Billions dollars)	Land Banks	Insurance		Home Administration	and Others
1970	\$ 29.2	22.9%	19.7%	12.1%	7.8%	37.5%
1975	44.6	30.0	14.1	13.4	7.2	35.3
1980	85.4	34.7	14.3	10.1	8.3	32.6
1981	95.5	37.6	13.5	9.2	8.1	31.6
1982	105.6	41.3	12.4	7.9	8.3	30.1
1982*	109.5	43.1	11.7	7.7	8.3	29.2

  

NONREAL ESTATE							
Year	Total	Banks	Production Credit Assoc.	Federal	Farmers	Individuals and Others	Commodity Credit Corp.
	Amount (Billions dollars)			Inter- mediate Credit Banks			
1970	\$ 23.8	43.3%	18.9%	0.9%	3.3%	22.4%	11.2%
1975	37.0	49.3	25.6	1.0	2.8	20.4	0.9
1980	80.4	38.6	22.4	0.8	11.2	20.7	6.3
1981	86.4	36.5	22.7	0.9	13.6	20.5	5.8
1982	96.1	34.3	21.9	0.9	15.0	19.6	8.3
1983*	108.0	33.5	18.6	0.8	13.6	18.1	15.4

  

TOTAL (Billions of dollars on January 1)						
1970	1975	1980	1981	1982	1983	
\$53.0	\$81.6	\$165.8	\$181.9	\$201.7	\$217.5	

Source: For 1970; *Agricultural Finance Outlook*, November 1979, Economics, Statistics and Cooperative Service, USDA (1979). For 1975-83; *Agriculture Finance Outlook and Situation*, Economic Research Service, USDA (1982).  
\*1983 data are preliminary.

proportion of all farmers than would be expected under more normal economic conditions. The PIK program, moreover, will apparently increase short-term financial pressures on livestock producers as feed costs rise and on agribusinesses as planted acres are cut back.

Thus, many students of farm policy would agree that old policy prescriptions are no longer working well. It is widely recognized that while

the PIK program provides a short-term boost to farm income and asset values, it does not address the underlying problems facing farmers. Rather, it serves the useful purpose of providing some breathing space that farmers, agribusinesses, and policymakers can use in addressing these underlying problems. In that context, this series of hearings is appropriately timed.

**TABLE 2**  
**Balance Sheet of the Farming Sector**  
 (Billions of dollars on January 1)

	1970	1975	1980	1981	1982	1983*
<b>ASSETS</b>						
Real estate assets	\$215.8	\$368.5	\$ 755.9	\$ 830.0	\$ 823.8	\$ 789.1
Nonreal estate assets	76.3	117.6	208.8	218.9	223.2	233.5
Total physical assets	292.1	486.1	964.7	1,048.9	1,047.0	1,022.6
Total financial assets	22.8	31.4	40.1	42.2	44.8	47.4
Total farm assets	314.9	517.5	1,004.8	1,091.0	1,091.8	1,070.0
<b>CLAIMS</b>						
Real estate debt	29.2	46.3	85.4	95.5	105.6	109.5
Nonreal estate debt to:						
Commodity Credit Corp.	2.7	0.3	5.1	5.0	8.0	15.4
Others	21.1	35.2	75.3	81.5	88.1	92.6
Total liabilities	53.0	81.8	165.8	182.0	201.7	217.5
Proprietors' equity	261.9	435.7	839.0	909.0	890.1	852.5
Total claims	314.9	517.5	1,004.8	1,091.0	1,091.8	1,070.0
Debt-to-asset ratio	16.8	15.8	16.5	16.7	18.5	20.3

Source: For 1970 and 1975; *Agricultural Finance Outlook*, November 1979, Economics, Statistics and Cooperative Service, USDA (1979). For 1980-83; *Agricultural Finance Outlook and Situation*, December 1982, Economic Research Service, USDA (1982).  
 \*1983 data are preliminary.

In examining the issue of financing agriculture in the 1980s, this article first reviews the historical patterns of credit use by farmers as well as the credit problems that have emerged to confront agriculture. Next, the efficiency of rural credit markets is reviewed. And finally, a discussion is provided of the policy options for the nation's food and fiber sector and the implications of these options for financing agriculture.

### Historical credit use patterns

Farmers have increasingly relied on debt financing over the past decade. Total farm debt outstanding has risen 310 percent since 1970 (Table 1). Real estate debt has risen 275 percent and nonreal estate 354 percent. During much of that period, however, farm asset values rose

even faster, holding the farm sector's debt-to-asset ratio around 16 to 17 percent (Table 2). Most of the increase in farm asset values was due to escalating farm real estate values. From 1970 to 1981, when values peaked, national farmland values increased at an average annual rate of 13.4 percent—well ahead of the 7.2 percent average annual increase in the GNP implicit price deflator.

It is only in the last two years that the sector's debt-to-asset ratio began the rapid climb that has taken it to 20.3 percent at the beginning of 1983, the highest since the data series began in 1940. Though that ratio still indicates substantial financial resilience in the farm sector, the picture is less benign for those farmers producing most of the nation's food and fiber. The U.S. Department of Agriculture (USDA) has estimated that as many as 45 percent of the farm operators with annual cash sales of

\$200,000 or more—the operators that account for half of all cash receipts—carry debt-to-asset ratios of over 40 percent. That is about twice the ratio for the farm sector as a whole. About 60 percent of all farm debt is owed by farmers with debt-to-asset ratios of more than 40 percent. Farmers with ratios of 70 percent or more carry 30 percent of all farm debt.

The financial problems of farmers have developed for a number of reasons. First, the farm recession drove farm income and farm cash flow well below expected levels. Second, interest rates paid by farmers escalated sharply as a result of rising price inflation and changes in rural financial markets.

These factors have resulted in declining farmland values. From peak values in early 1981, U.S. farm real estate values have declined by a little more than 6 percent. In the Tenth Federal Reserve District, our agricultural credit surveys indicate nonirrigated cropland values as of July 1, 1983, have fallen about 14 percent from their peak value. The decline in asset values quickly brought to a head the problems of farmers who had grown accustomed to periodic refinancing of operating and term debt using escalating land values to provide collateral.

By 1982, reduced cash flow, the high real cost of carrying debt, and declining land values had combined to markedly boost farm loan delinquency rates. Last year, loan repayment rates dropped sharply across the Farm Belt. Demand for loan extensions and renewals escalated, as well. In the Tenth Federal Reserve District, for example, our surveys show the proportion of farmers who left farming for all reasons during the fourth quarter of 1982 and the first quarter of 1983 was about 65 percent higher than bankers considered normal. The proportion of farmers continuing in business, but selling capital assets to relieve financial stress, was about three times greater than bankers con-

sidered normal. Nonetheless, anecdotal evidence suggests that only about 12 to 15 percent of the Tenth District and the nation's farmers are having very serious financial problems.

Farm Credit System (FCS) data suggest a similar, though perhaps not as striking, pattern of loan delinquencies and forced exits from farming across the nation. At the end of 1982, 2.2 percent of Production Credit Association and Federal Land Bank borrowers were in foreclosure. And at the end of the first quarter of 1983, 10.3 percent of their loans were delinquent. Even though 35 percent of Farmers Home Administration (FmHA) borrowers were delinquent on March 31, foreclosure action was being taken by the agency against only 0.5 percent of all FmHA farm borrowers (excluding rural housing loans).

These higher rates of farm failures must be viewed in an historical context, however. Farm failures in the 1970s were held to unusually low levels through expanded government credit programs, such as the Livestock Emergency Credit and the Economic Emergency Credit programs of the FmHA. Yet, despite good intentions and the \$7.7 billion in total credit obligated under these two programs, it is difficult to find success stories from the programs. Bankers indicate that with few exceptions recipients of those loans are once more in trouble and account for a significant proportion of the current business failures and partial liquidations among U.S. farmers.

Thus, it seems appropriate to restrain new extensions of credit under the programs and to refocus federal credit programs. There is a point at which new extensions of credit, regardless how easy the terms, are simply not in the best interest of the borrower. Beyond some point, further extension of credit likely means the farmer will continue in business until depleting all his equity and will leave farming with no wealth. Indeed, it was the widespread

substitution of credit for income during the past several years that is responsible for the current unfortunate plight of many financially troubled farmers.

### **Efficiency of credit markets**

Public policymakers historically have been concerned with credit availability for farmers. In the past, when rural credit markets were relatively isolated from national financial markets and before the emergence of the FCS as a major national lender to agriculture, such concerns may have been justified. As a consequence, a variety of federal programs were put into place to assure farmers access to credit.

For most of the previous decade—indeed, much of the post-World War II period—institutional arrangements in agriculture have tended to provide farm credit at rates that were often below national money market rates. Until 1978, FmHA lending for real estate was at below market rates, and economic emergency loan program funds were available far below market rates at a maximum of 3 percent. Commodity Credit Corporation (CCC) lending was also at subsidized rates until the mid-1970s. The FCS, using average cost pricing in an environment of rising interest rates, also priced their loans below the marginal cost of funds, although variable interest rate loans tended to limit the differential over time.

Thus, agriculture may have used more credit than it would have if the price of that credit had more accurately reflected national financial market conditions. Moreover, financial market conditions during the 1970s, both in and out of agriculture, tended to encourage firms to use leverage in their growth strategies. Institutional arrangements, unanticipated price inflation, and expansionary economic policies combined to hold real interest rates in credit markets near zero during the 1970s. As a result, it is not sur-

prising that agricultural debt levels grew so rapidly during that period.

In the past, agricultural banks typically raised loanable funds and made loans in the same local geographic market. During periods of restraint in monetary policy, interest rates charged by those banks were usually lower than national market rates. Conversely, rural rates did not fall as low as national market rates during periods of ease in monetary policy. The recent institutional and regulatory changes in financial markets and the return of greater price stability in the economy, however, have largely eliminated the isolation of rural financial markets. As a result, loan funds at rural banks now tend to be priced much nearer national financial market rates.

Looking to the future, a number of factors may lead to a credit market environment marked by a continuation of high real interest rates. Among those factors are large demands on capital markets to finance public budget deficits, credit demands by the private sector to modernize and enlarge the U.S. industrial base, and the ongoing deregulation and internationalization of U.S. financial markets. Thus, market forces may weigh against increased leverage and in favor of increased use of internally and externally generated equity funds in farm business growth.

### **Farm policy alternatives**

This section of the article outlines recommended policy options to address the issues raised and emphasizes the linkage between improved performance for the broader economy and improved performance for agriculture.

#### *Credit policy*

Access to credit and the terms on which credit is made available remain important

agricultural policy tools. As a result of the improved efficiency of credit markets, policy-makers have an opportunity to chart an equitable and market oriented credit policy for farmers. They also have an opportunity to direct the allocation of government credit to uses with a high return, both to the farm and the national economies.

It can be reasonably argued that agriculture now has access to very efficient credit markets and can acquire all the credit it can profitably use at competitive rates. Though it is probably true that agency status enables the FCS to raise loanable funds at somewhat lower cost than would otherwise be the case, it does not seem prudent to tamper with that status at this time. To do so currently would probably not materially reduce agricultural credit demands and could disrupt the servicing of agriculture's credit needs at a time when farmers can ill afford such instability.

With efficient credit markets, one can expect that agriculture's credit needs will be well served in the future. Indeed, if a significant part of the current U.S. farm surplus results from overinvestment in agriculture and excess capacity to produce at prices acceptable to farmers, policymakers should carefully consider any further investment with credit at below market cost or on soft terms. While such action may appear to benefit hard pressed farmers at the time, experience indicates the benefit may be at best transitory. Furthermore, it may be an inefficient allocation of credit resources and may also discriminate against producers that have obtained credit on normal commercial terms. To the extent that such credit expands total farm output beyond what can be marketed at acceptable prices, it simply creates another public policy problem.

Financing export sales of farm products is an area in which public credit extension could yield a high return in the 1980s. Export sales of food

and fiber will continue to be limited by the inability of food deficit countries to exercise effective market demand. Additionally, credit extensions appear to be helpful in meeting competition by other sellers in world markets, as well as being less confrontational than many subsidy mechanisms. Thus, it seems appropriate to explore ways of using credit and credit guarantee programs to improve demand for U.S. farm exports in world markets. For example, the revolving export credit program should be funded. Additionally, credit guarantee programs could be expanded. Moreover, adequate funding for an intermediate-term credit program could fill an important need. To facilitate market development, it is important to provide multi-year credit and food aid commitments to world agricultural customers and aid recipients.

In view of the public interest in preserving the nation's agricultural production capability, properly designed programs to assist in financing soil conservation would appear to be another productive use for government credit. About 94 million acres of U.S. farmland are losing five or more tons of topsoil per acre through erosion each year. Government credit might be used in financing long-term improvements in land management, such as terraces or the return of land to a soil conserving use. Subsidized interest rates and loan forgiveness could be used to encourage participation in conservation programs. Conversely, full loan repayment at market rates could be required from farmers who converted land back out of the subsidized conservation practice within a specified time period.

Despite the efficiency of agricultural credit markets, the need will remain for public extension of credit to a proportion of new entrants into agriculture. The average age of America's farmers in the last Agricultural Census was 50 years, suggesting a substantial proportion of them could retire by the end of this decade.

Farm consolidation could reduce the number of replacement farmers needed and many entrants will likely receive family assistance in starting their farm businesses. Additionally, market forces may influence more farmers to leave part of their assets invested in agriculture upon retiring—thus reducing initial capital requirements for entrants into farming. Nonetheless, some entrants will need FmHA credit for equipment, land, and operating expenses. FmHA lending for those purposes currently amounts to about \$1.9 billion a year. While I have earlier questioned the usefulness of the FmHA large scale economic emergency lending programs, I do support a limited and carefully targeted credit program to provide assistance to new entrants into farming.

The Commodity Credit Corporation commodity loan program has a longstanding record of success in aiding farmers in marketing their products. Hence, no action should be taken that would jeopardize that program.

A variety of other credit programs could be proposed. Although many might have merit, federal budget pressures likely mean all future government spending and lending will undergo close scrutiny. It is important, then, to allocate government assistance to activities with the highest payoff to the American public.

Credit demand by farmers may not grow as rapidly in the decade ahead as in the previous decade. The volatility in commodity prices inherent in supplying a world market for food and fiber appears likely to result in greater credit rationing on the part of farmers themselves. Lower rates of price inflation will also slow growth in farm asset values and input costs. If real interest rates were higher than those typical of the past couple of decades, that would likely weigh against highly leveraged farm business growth strategies. However, credit demand to support farm export sales and to facilitate soil conservation practices could

grow more rapidly in the 1980s than previously.

### *Price signals*

Improved farm prices and income are dependent on demand growth both in the domestic economy and in trading partner economies. Because trading partner countries often have more rapid population growth than the United States—and higher propensities to spend additional income on food—export markets are particularly important. Farmers and their agribusiness partners in the food and fiber industry have invested billions of dollars in preparing to sell in export markets and cannot comfortably turn their backs on such an opportunity. Yet, U.S. commodity prices above world market prices limit the ability of farmers to compete in those markets.

Commodity Credit Corporation loan rates that are above world market prices work to the disadvantage of farmers in three ways. First, farmers are encouraged to produce more than world markets can accept without causing market prices to fall. Second, high U.S. prices tend to encourage expanded production elsewhere in the world, adding to the competition faced by U.S. farmers. Finally, U.S. farmers capitalize those government price signals into their land values and equipment costs, raising their cost of production and reducing their competitiveness in world markets.

Government price signals above world prices are largely the result of legislated price increases linked to adjustments for inflation. More appropriately, I believe, CCC loan rates for major farm commodities traded in world commerce should be adjusted to market clearing levels, that is, world prices.

Some provision for carrying stocks, as in the Farmer Owned Reserve, is probably needed to ensure that the United States is a reliable sup-

plier to its customers. Reserve stocks add a measure of stability to commodity prices as well. Clearly, the reserve should have a maximum capacity related to the quantity needed to make sure the United States can supply its domestic and international markets. It should not, however, be used as a major income support device as in the recent past. Moreover, the United States should seek to avoid carrying, in its own stocks, the world's grain reserves—attempting instead to convince other major producer and consumer countries to share in carrying the inventory.

### *Export markets*

It would not be reasonable to fashion a public policy for U.S. food and fiber without substantial attention to export markets. Production from about two out of every five harvested acres in the United States has been destined for the export market. Moreover, every additional billion dollars of farm exports creates about 28,000 to 30,000 new jobs in the U.S. economy. Farm exports are also an important factor in reducing the U.S. balance of trade deficit.

The United States should take a number of measures to improve its position in world agricultural trade. Trade policy should be developed that is conducive to expanded exports of farm and other products. Included in the policy should be a strong and unequivocal statement that the United States will be a reliable supplier of farm products in world markets. Language to that effect should be included in the Export Administration Act now before the Congress. To do otherwise may continue to identify this country as an unreliable supplier of farm products. Efforts to reduce unfair trade practices and trading partner restraints against importing U.S. farm products should also be pursued with vigor and

prudence. Such efforts should be continuing and long term. Moreover, expectations of results must be realistic.

An increased long-term effort should be made to develop foreign markets. Food aid and public sector/private sector market development projects are important parts of that effort. Long-term economic aid to developing countries is helpful in developing markets for our farm products as well. Competitively priced transportation of products to customer countries also needs to be assured. As noted earlier, credit and credit guarantee programs are very important. Perhaps an export PIK program should be considered as well. Finally, broader U.S. economic policies can either enhance or inhibit the competitiveness of U.S. products in world markets by affecting relative rates of economic growth across countries, the U.S. inflation rate, and the international exchange value of the dollar.

### *Supply control*

In the near term—and perhaps throughout the 1980s—farmers appear to have significant excess capacity to produce. Hence, some type of multi-year land retirement program appears to be needed. While it seems unlikely that as much land needs to be retired as in the 1960s, when 58 million acres—at the peak—were withdrawn from production, it seems important that a longer term program be considered. Land retirement could be linked to soil conservation efforts—returning to conserving uses crop lands most susceptible to soil erosion. Such conservation use could include a return to grass or to forest. Some procedure should also be devised, of course, for returning land to cultivation if demand later warranted. Land retirement programs, however, should not become a means to abruptly increase the nation's supply of beef—thus harming cattle pro-

ducers. Additionally, it seems prudent to give the Secretary of Agriculture discretionary authority to implement short-term voluntary and paid land diversion programs as a means for providing better balance of market supply with demand. While I would be reluctant to see mandatory procedures for short-term land retirement written into legislation, the Secretary of Agriculture could be encouraged to consider such action when conditions warrant.

### *Farm income maintenance*

Inherent in the policy initiatives I have suggested are both opportunities and risks. The initiatives are consistent with growing markets for U.S. farm products, but dependence on market forces carries with it price and income volatility. While it may be politically unacceptable for the government to underwrite all the downside risk in farm prices and income, some public policies may be necessary to limit that risk.

It might be more practical to provide some income protection than to support product prices at levels which may sometimes be above market clearing levels. Thus, some form of a target price system with direct payments to farmers is appealing. But the budget exposure under such a system will probably have to be much more tightly defined in future legislation. Perhaps the program's income maintenance and production level linkage should be reevaluated. The current system of deficiency payments for cooperating producers on nearly all production of covered commodities can be questioned on the basis of both efficiency and equity.

Insurance mechanisms appear to hold much promise for underwriting farm income risk. Some adjustments in cost and benefit levels, as well as increased coverage, for the Federal Crop Insurance program deserves attention from the Congress. Continued partial subsidy of pre-

miums would likely be necessary to attract farmer support. Congress should also investigate the potential usefulness of an income or product price insurance program. Such a program might include the use of commodity options and could perhaps be offered by private insurers. If feasible, the program would offer farmers another means of protecting themselves from the downside of commodity price cycles. Of course, insurance programs need widespread participation to work. Farmers would likely purchase insurance only if the government were not already providing it at no cost—as in FmHA and Agricultural Stabilization and Conservation Service (ASCS) administered emergency/disaster programs providing credit and transfer payments.

### *Broader policy considerations*

Farmers have placed great importance on development of legislative solutions to commodity price and farm income problems. However, the growing interdependence of the farm sector with the broader U.S. economy and the sector's increased dependence on export markets now mean that broader economic policies have become at least as important to farmers as farm policy.

For those farmers that rely on agricultural production as their primary source of income, broader economic policies are important determinants of growth in farm product demand, production cost increases, and the cost of capital. However, for the more than 1.5 million small farmers that are now primarily dependent on off-farm jobs and income for their livelihood, farm programs are relatively unimportant. What is important to these small farmers is broad ranging economic growth that can stimulate job formation and rural development programs which provide employment opportunities near their farm residences. Thus, policies that improve the performance of the

entire U.S. economy are important to the welfare of all the nation's farmers.

## **Conclusion**

In summary, the integration of the food and fiber sector into the broader United States and world economies seems to call for more market oriented policy initiatives. Accommodating such policy changes while balancing the legitimate interests of farmers, consumers, and others affected directly by agriculture will require creative policy formulation.

The policy initiatives suggested in this testimony would be expected to support the growth of U.S. farm product sales—at home and abroad—and to limit the adverse impact of downward price and production volatility in U.S. agriculture. This would be accomplished in the context of an increasingly market oriented policy—consistent with limited government intervention. In such an environment, when coupled with efficient national and rural credit markets, the financing needs of U.S. agriculture should be well served during the 1980s.

Sustainable growth in the U.S. economy and the economies of its trading partners is fundamental to finding complementary solutions to problems addressed by food and fiber policy. In many respects, policy initiatives that improve broader economic performance will prove at least as important in determining farm income and the adequacy of financing agriculture as what is done with food and fiber policy.