Comments on the Agricultural Finance Situation and Outlook

National Agricultural Outlook Conference
Washington, D.C.
November 20, 1975

Emanuel Melichar
Senior Economist
Division of Research and Statistics
Board of Governors of the Federal Reserve System
Washington, D.C. 20551

Comments on the Agricultural Finance Situation and Outlook

Emanuel Melichar

Board of Governors of the Federal Reserve System

In the continuing program of agricultural finance studies at the Federal Reserve Board, particular attention is given to farm credit and loan conditions at rural banks and to aggregate farm capital and credit flows. From this background, I am led (1) to emphasize that farm credit availability at many rural banks is much improved over conditions a year ago, (2) to point out that farm debt repayment data for the first half of 1975 provided a warning that should not be overlooked, and (3) to adopt a skeptical attitude toward the USDA's forecast of a farm credit boom in 1976.

Agricultural Credit Conditions at Rural Banks

A year ago, the Agricultural Finance Outlook correctly stated that rural bankers were experiencing reduced availability of loanable funds and were proceeding cautiously in view of the deteriorated income and financial positions of many farm borrowers. Subsequently, data indicating relatively slow growth of total farm loan volume at banks during the 12 months ending in June has confirmed that many banks were to an unusual extent unable and/or unwilling to meet farm loan demands because of these conditions. Both survey and aggregate data indicate that some farm loan demands were shifted to the production credit associations and the Farmers Home Administration, and perhaps also to the Federal Land Banks--all of which posted much greater

The views expressed herein are solely those of the author and do not necessarily represent the views of the Board of Governors of the Federal Reserve System.

percentage increases in farm loan volume than did commercial banks.

With this experience still fresh in the memories of many borrowers and lenders, it is worth emphasizing that farm loan availability at many rural banks has markedly improved. For example, the agricultural credit conditions survey in the Minneapolis Federal Reserve District indicates these dramatic changes:

	Survey made on October 1		
	1973	1974	1975
Percentage of banks--			
Actively seeking new loan accounts	62	27	61
Reducing or refusing a loan due to a shortage of funds	9	35	8
Expecting problems in meeting loan requests in the next three months	8	30	4
Expecting adverse change in farmers' ability to repay debt....................	6	56	20
Increasing referrals to nonbank credit agencies................................	5	19	9

The percentage of banks reporting a greater-than-usual amount of referrals to nonbank credit agencies peaked at 27 per cent in the April 1 survey--a level for this statistic last experienced during the livestock price problems ten years earlier. The sharp turnaround in bank credit conditions should be noted by borrowers and other farm lenders.

Parenthetically, it may be helpful to note that three additional Federal Reserve Banks are initiating quarterly agricultural credit conditions surveys similar to those conducted for many years by the Federal Reserve Banks of Chicago and Minneapolis. Each of the surveys covers a representative sample of rural banks and is made

on the first day of each calendar quarter. Results of the Chicago District survey are discussed in the Reserve Bank's weekly Agricultural Letter, usually within a month of the survey date. Minneapolis District results are published in the Reserve Bank's quarterly Agricultural Credit Conditions Survey. Dallas District results are summarized in the Reserve Bank's monthly Farm and Ranch Bulletin. Surveys in the Richmond and Kansas City Districts are just commencing. Subscriptions to each of these publications can be arranged without charge by contacting the Research Departments of the respective Federal Reserve Banks. The broader geographical coverage of farm lending experience provided by the new surveys should be particularly helpful in assessing farm credit and loan conditions in the new agricultural environment characterized by greater income variability and financial risk.

Credit Experience in a Period of Depressed Real Income

During the first half of 1975, farm lenders were reporting slow loan repayments, a higher rate of renewals, and more refinancing of short-term debt into mortgage debt. Yet net farm income, then running at a seasonally-adjusted annual rate of $20 billion, seemed good compared to that of years preceding 1973. But when adjusted for general price inflation (using the USDA index of prices paid by farmers for family living items), that rate of income is revealed as ranking among the poorest real farm incomes of the past fifteen years--roughly equal to that of 1964 and lower than in 1970 and 1971. Similarly, though the farming sector in the previous year (1974) had experienced substantial capital appreciation, the gain did not suffice to overcome the effect

of general price inflation on the real value of farm assets. Land prices in 1974, for instance, on average did not rise as fast as prices of farm family living items.

The unfavorable farm debt repayment experience of the first half of 1975 was very evident in bankers' responses to the quarterly surveys in the Chicago and Minneapolis Federal Reserve Districts, as well as in aggregate data for production credit associations and Federal Land Banks. On June 30, for example, outstanding debt at production credit associations was 18 per cent above a year earlier, but collections during the previous twelve months were up only 4 per cent. Collections over that period were equal to 89 per cent of average outstandings, whereas a level of 95 per cent has been more common. Thus perhaps six percentage points of the 18 per cent increase in outstandings may be attributed to the subpar rate of collections. Similarly, though Federal Land Bank outstandings were running 23 per cent above a year earlier, repayments during the twelve months ending June 30 were up by only 1 per cent.

Again it should be emphasized that the rate of loan repayments has improved since mid-year, in line with the sharp rise in farm income. This is indicated both in survey reports from bankers and in aggregate data for the production credit associations and Federal Land Banks.

But it remains interesting that in spite of the tight world food situation, farm output prices declined sufficiently to bring about an unusually depressed real level of farm income and its attendant debt repayment difficulties, simply on the expectation of large

1975 U.S. and world harvests. Thus the first half of 1975 indicated the fragility of current agricultural prosperity--a warning that may be overlooked in the midst of the price recovery and renewed optimism spawned by the Russian crop failure.

Forecasts of Farm Capital and Credit Flows

Prospective users of the USDA's forecasts of capital and credit flows face problems that will be evident in the following discussion. They should examine whether the forecasts are compatible with their other information and their own views on the direction of the over-all agricultural economy. And in particular, they should be alert to the probable need for revision as new data for 1975 become available and as 1976 developments unfold.

As everyone knows, a boom in farm capital spending and real estate prices and sales developed after 1970, accompanied by large increases in outstanding farm debt. Table 1 shows the magnitude of the financial flows involved. Spending and growth in debt peaked in 1973, tapering off somewhat in 1974.

Did this boom resume in 1975 as the USDA's data now indicate? Given the income and credit experience reported during the first half of the year, did capital formation rise by 28 per cent and real estate transfers by 20 per cent over 1974 levels?

Table 1. Latest USDA estimates and forecast of capital and credit flows, 1970-1976 (billions of dollars)

	1970	1971	1972	1973	1974	Estimate and forecast as of December 1975: 1975	1976[a]
Capital flows:							
Capital formation							
Machinery	4.9	4.9	5.7	7.6	7.8	9.0	9.4
Real estate.............	2.4	2.5	2.4	3.0	3.5	5.0	5.6
Other	1.4	2.4	3.1	2.4	1.2	2.0	3.5
Total................	8.7	9.8	11.2	13.0	12.5	16.0	18.5
Real estate transfers	3.8	5.5	8.5	11.4	9.5	11.4	12.8
Total capital flow	12.5	15.3	19.7	24.4	22.0	27.4	31.3
Net increase in debt							
Real estate	1.1	1.9	3.5	5.5	5.0	5.6	6.5
Non-real-estate	1.1	2.5	3.1	4.3	3.1	3.2	5.0
Total	2.2	4.4	6.6	9.8	8.1	8.8	11.5
Addendum							
Total net farm income:							
Nominal, current dollars...	13.8	14.2	18.2	33.1	26.1	25.0[b]	25.0[b]
Real, 1967 dollars	12.1	11.9	14.7	24.0	16.2	14.1	13.3
Price deflator (1967=100)[c] ...	114	119	124	138	161	177	188

a Forecast assuming constant interest rates.

b Approximate income apparently used in the USDA capital and credit flows estimates and forecasts.

c Price deflator used to calculate real income is the USDA index of prices paid by farmers for family living items. The author estimated the index for 1975 from monthly data for January-October, and forecast the index for 1976 as an increase of 6 per cent from 1975.

Source of capital and credit data: Agricultural Finance Outlook, AFO-16, U.S. Department of Agriculture, November 1975, pp. 16 and 19.

The estimated increase in debt has a firmer basis in the form of current reports from major lenders, but may prove somewhat overestimated if a normal seasonal repayment pattern develops.

Will the capital and credit boom extend into and accelerate in 1976 as the USDA's forecast indicates? It is not intuitively clear that this expectation is consistent with the relatively low level of real net farm income that is expected (see Addendum to Table 1). Such income seems more compatible with a continued "winding-down" of the capital and credit boom following the peak in real income experienced at year-end 1973. In this scenario one might expect increases of perhaps $5 billion in real estate debt and $2 billion in non-real-estate debt during 1976, with total debt thus increasing by $6 to $8 billion rather than by $11.5 billion as forecast by the USDA.

For the capital and credit boom to accelerate as the USDA forecasts, intuitively it seems necessary that the stimulus be furnished by a real net farm income at least exceeding the 1974 level. At probable 1976 prices, this would require net farm income exceeding $30 billion--a level not generally expected at present.

I am very uncomfortable in raising these thoughts, because they should be both preceded and accompanied by an investigation and discussion of relevant properties of the USDA's model (AIW Simulator), with particular attention to possible biases during the downward phases of real net farm income cycles. This has not been convenient because a description of the properties and historical performance of the model

has not yet been published, though model results have been used in the outlook publications since 1973. Neither, therefore, has the model been subjected to a general review and critique by other interested analysts. The USDA should be encouraged to issue such information as soon as possible, and to make the model and database conveniently available to analysts who have a need to learn its properties and responses prior to commenting on or using its published results.

Given that this preferred investigative approach cannot be taken at this time, it remains possible and relevant to explore the published record of the model estimates and projections. These data from Agricultural Finance Outlook issues of 1973, 1974, and 1975 are presented in Table 2.

The first forecast for 1974, published in December 1973, anticipated capital flows approximately equal to those of 1973, accompanied by a greater increase in debt. As 1974 was concluding, however, the model estimates were revised sharply upward to indicate that a capital spending superboom had occurred. Now it is known that this late revision was in the wrong direction and that capital and credit flows in 1974 were actually lower than in 1973. This fact--that the model in December 1974 provided a completely inaccurate and misleading impression of the type of capital and credit year that 1974 had been--is most worrisome. The properties and/or procedures leading to that result need to be ascertained and corrected.

Table 2. Historical Comparison of USDA Forecasts and Estimates, 1974-76

	1974			
	Forecast as of Dec. 1973[a]	Forecast as of Mar. 1974	Estimate as of Dec. 1974	Current estimate
Capital flows				
Capital formation:				
Machinery	...	...	8.9	7.8
Real estate	...	...	3.1	3.5
Other	...	...	4.1	1.2
Total	13.1	12.3	16.1	12.5
Real estate transfers	12.5	12.7	14.7	9.5
Total capital flow	25.6	25.0	30.8	22.0
Net increase in debt				
Real estate	6.1	6.0	6.3	5.0
Non-real estate	4.4	5.8	4.6	3.1
Total	10.5	11.8	10.9	8.1

[a] Forecast assuming "high interest rate scenario."

	1975		1976
	Forecast as of Dec. 1974[b]	Estimate as of Dec. 1975	Forecast as of Dec. 1975[b]
Capital flows			
Capital formation:			
Machinery	9.4	9.0	9.4
Real estate	3.4	5.0	5.6
Other	4.6	2.0	3.5
Total	17.4	16.0	18.5
Real estate transfers	17.9	11.4	12.8
Total capital flow	35.3	27.4	31.3
Net increase in debt			
Real estate	8.0	5.6	6.5
Non-real estate	5.8	3.2	5.0
Total	13.8	8.8	11.5

[b] Forecast assuming constant interest rates.

Given the kind of year that the model thought 1974 to be, and given the optimistic farm income projections used in the fall of 1974, it is not surprising that the model in December 1974 forecast a capital and credit superboom for 1975. By early 1975 it was apparent to knowledgeable analysts (including the USDA forecasters) that the forecast was off the mark. Nevertheless, no revised forecast or outlook was issued, and throughout the year one encountered articles continuing to use and quote the obviously incorrect quantitative forecast.

The USDA should assume responsibility for improving this state of affairs. Experience with the 1974-75 estimates indicates the strategic influence of data for the immediately-preceding year on the forecast for the current year. The relevant data for the preceding year become available on a staggered basis between February and August of the current year. In February, much of the change in outstanding debt becomes known, along with better preliminary indications of income and asset values. By May, all of the change in debt at institutional lenders is known, along with data on real estate values and transfers and most other asset values. In August, release of final data on income and capital expenditures completes the picture for the preceding year. At the same time, as the year goes along, better projections of income in the current year become available. Thus there exists an obvious quarterly schedule--February-May-August--for updating of the quantitative agricultural finance forecast, even though an annual model is used. The revised forecasts could also incorporate the improved

projections of income, interest rates, and other key variables that become available as the year proceeds.

Returning to the data for 1975, note therefore that the estimates of capital and credit flows have been substantially lowered from those forecast a year ago. But it is obvious, in view of the experience with the 1974 estimates, that they may still be off the mark. After reviewing the track record, one should not be intimidated from being skeptical of estimates for 1975 published in December 1975. The USDA outlook statement in effect states that, after a pause in 1974, a vigorous rise in capital spending, real estate sales, and net new borrowing resumed in 1975 and will gather strength in 1976. As I have already noted, this seems an overly-exuberant impression of 1975 and inconsistent with the level of real net farm income now projected for 1976.

References

Melichar, Emanuel, and Sayre, Marian, "Capital Gains in the U.S. Farming Sector, Nominal and Real, 1940-1974," paper presented at the annual meeting of the American Agricultural Economics Association, Ohio State University, August 11, 1975.

Melichar, Emanuel, "Presentation to the National Agricultural Credit Committee," Chicago, Illinois, September 22, 1975.

U.S. Department of Agriculture, Agricultural Finance Outlook, AFO-13. December 1973, p. 13.

__________, Agricultural Finance Outlook, AFO-14, March 1974, p. 20.

__________, Agricultural Finance Outlook, AFO-15, December 1974, p. 20.

__________, Agricultural Finance Outlook, AFO-16, November 1975, pp. 16 and 19.