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## A REVIEW OF SELECTED FARM FINANCIAL DEVELOPMENTS

(By Emanuel Melichar, Senior Economist, Board of Governors of the Federal Reserve System)

The first four sections of this paper review several farm finance trends and relationships that are important in formulating a financial outlook for 1980:

- (1) Capital gains in the farming sector;
- (2) Relative use of debt financing;
- (3) Liquidity trends at rural banks; and
- (4) Farm loan interest rates.

In each case, references are provided to papers that presented the underlying analyses as well as more extensive or detailed discussion. Copies of these publications are available from the author.

The concluding section of this paper discusses certain probable and important implications for farm financial and credit experience of the farm income forecast for 1980 that has been presented by USDA staff at this conference.

### CAPITAL GAINS IN THE FARMING SECTOR

Large increases in the price of farm assets have led to huge nominal capital gains in recent years. But it is misleading to invite comparison of these gains with farm income, as is done in the top panel of figure 1. To obtain data on capital gains that are comparable with net income, the nominal gains must be adjusted for gains or losses resulting from changes in the general purchasing power of the funds tied up in assets or of the funds owed. The result of this procedure, known as "real capital gains" in agricultural finance literature, is shown in the middle panel of figure 1. Finally, for comparisons over time, the constant-dollar series shown in the bottom panel are most useful.

The results of the adjustments for general price inflation make it clear that a large part of recent nominal gains merely represented keeping up with inflation. Nevertheless, real capital gains were on average about as large as net farm income (which here includes landlords' net rent) during the 1970's.

Figures 1 through 3 update similar data and charts used in "Capital Gains Versus Current Income in the Farming Sector," a paper presented at the meeting of the American Agricultural Economics Association on August 1, 1979 (forthcoming, American Journal of Agricultural Economics, December 1979). One difference is that, in accordance with current USDA practice, the BLS consumer price index (for all items, all urban consumers) has now been used as the measure

of changes in the general price level (replacing the USDA farm family living index previously used). Additional detail on the computational methods and a critique of earlier literature on capital gains is provided by another paper, "Capital Gains in the U.S. Farming Sector, Nominal and Real, 1940-74," presented at the meeting of the American Agricultural Economics Association on August 11, 1975. The computation procedures and current and historical data for capital gains shown here are presented in tables 541 through 545 of *Agricultural Finance Databook—Annual Series*, issued periodically by the author.

Most real capital gains have arisen from increases in the price of farm real estate, which comprises about three-fourths of the value of farm assets. Several analysts have recently shown that the primary factor underlying real price increases of farm real estate has undoubtedly been rapid growth in the current income to owners of this asset. One approach, involving study of trends in cash rent received by farm landlords, has been employed by Robert Reinsel and Larry Walker of the USDA staff. Another approach, illustrated by figure 2, is based on study of the trend in the residual return to farm production assets, a series computed and published annually in the USDA's Balance Sheet of the Farming Sector. Note, in figure 2, that since the mid-1950's the return to assets has actually been rising somewhat faster than asset values.

The upper panel of figure 3 illustrates further the rapid growth exhibited by the current return to farm production assets. In constant dollars, the current return rose at an average annual rate of 4.3 percent over the 1954-79 period. As is demonstrated in the paper, "Capital Gains Versus Current Income in the Farming Sector," an asset that has been producing, and is expected to keep producing, such rapid growth in its current return will necessarily be priced at a relatively high multiple of that return, since its price will tend to rise at the same pace. In the language of the stock market, farm real estate is a "growth stock," whose owners obtain a significant proportion of their total return in the form of real capital gains. The lower panel of figure 3 indicates that, except in the late 1960's, real capital gains have on average been about equal to the current return since the midfifties. Given the real growth rate exhibited by the current return, this is about what one would expect on the basis of the asset-pricing model appropriate for an asset with a growing return.

This result has important implications both for farmland price analysis and for farm sector structure and policy. With past land price increases now viewed as theoretically consistent with the empirical record of the real current return, recent price levels can be regarded as based in large part on expectations of continued long-term growth in that return—which, in view of the past record, seems a reasonable "speculation." At the same time, however, the necessarily low current return to the market value of such an asset is an important source of many of the farming sector's concerns, such as cash flow problems, difficult entry, and the attraction of farm real estate for persons of large wealth or high income. Policy actions intended to address these concerns may actually aggravate such problems if they tend to increase the growth rate of the current return, which in the longer run would tend to reduce the rate of current return, on asset market values; thus, farm programs need to be designed to avoid this unintended effect.

## RELATIVE USE OF DEBT FINANCING

Rapid increases in farm debt have led to concern about possible dangers inherent in recent levels of debt financing. The relatively low level of the sector's debt/asset ratio has been reassuring; however, this indicator should be supplemented by measures that yield insights into other aspects of increased debt financing.

The inherent productivity of increased debt financing can be in part assessed by examining whether it is financing increased capital formation or simply replacing internal financing of this capital flow. (Capital formation consists of expenditures for machinery, buildings, and land improvements plus the net change in financial assets and the value of net additions to inventories of livestock and stored crops.) The upper panel of figure 4 shows that increases in debt have recently been rising faster than capital formation; thus, as the lower panel indicates, debt financing has replaced internal financing to a highly unusual degree in the period starting in 1976. In this century, a comparably high ratio of debt financing to farm capital formation has previously occurred only once, during the ill-fated boom of World War I.

If capital flows are increasingly financed by borrowing rather than by saving from current income, more of the ultimate financing burden is being shifted to future income. While this course is warranted if future income gains are in prospect, figure 5 shows that increases in debt since 1976 have been far outside previous bounds of their relationship to farm cash flow and net income (cash flow consists of net farm income plus capital consumption allowances). Thus debt commitments are being incurred at a high rate relative to growth in the income flows from which they must be serviced.

A brief but relatively comprehensive discussion of the computation and uses of various indicators of relative debt financing appears in "Analytical Ratios Based on a Farm Sector Cash Flow Statement: Discussion," Proceedings of Workshop on Farm Sector Financial Accounts, Agricultural Economic Report 412, USDA, 1977. The historical development of such measures in agricultural finance literature is discussed in "The Farm Business Sector in the National Flow of Funds Accounts," 1970 Proceedings of the Business and Economic Statistics Section, American Statistical Association, 1971. These indicators of the relative usefulness and safety of ongoing increases in farm debt were employed in the articles "Farm Finance—Current Developments in Perspective," Agricultural Finance Commentary, November 1977 (mimeographed), and "Some Current Aspects of Agricultural Finance and Banking in the United States," American Journal of Agricultural Economics, December 1977.

## LIQUIDITY TRENDS AT RURAL BANKS

Banks that are located in rural areas and that are heavily involved in financing agriculture often experience conditions that differ significantly from those at larger and more urban banks. This section discusses liquidity and interest-rate trends at such rural banks, as well as some evidence of the impact of these developments on farm borrowers.

In figure 6, the average loan/deposit ratio at agricultural banks is

compared with that at all other banks. On this chart, agricultural banks are defined as banks at which farm loans represent 25 percent or more of total loans. Nearly one-third of all commercial banks fall into this category, but together they account for only 6 percent of total banking resources; thus their liquidity experience is lost in aggregate banking data which are dominated by the larger, more urban banks. However, these agricultural banks hold 51 percent of all farm loans in the banking system, and so their condition has important implications for farm lending.

The chart shows that the liquidity of agricultural banks was largely unaffected during recent past cycles in the overall liquidity of the banking system. In 1976 and 1977, however, when adverse farm income developments led to slower rates of deposit growth and of farm loan repayment, the resulting increase in the average loan/deposit ratio at these banks was roughly comparable to that experienced at other banks during the monetary restraint of 1973-74.

Since the summer of 1977 there has been significant improvement in farm income. As yet, however, the trend toward reduced average liquidity at agricultural banks has not been reversed, primarily because deposit growth rates have not risen from the levels to which they fell in 1976 and 1977. Meanwhile, strong demand for both farm and non-farm loans has led total loans to rise faster than deposits, even though farm loan repayment rates have improved.

In figure 7, the same banking data are shown on a quarterly basis for the more recent period for which quarterly data are available. Since mid-1977 the average loan/deposit ratio has not risen as rapidly at agricultural banks as at other banks, which resembles experience during previous periods of monetary restraint. Nevertheless, after relatively modest seasonal improvement in liquidity last winter, the average loan/deposit ratio at agricultural banks had by September moved up to a new high level of 68 percent, about 12 percentage points above the average midsummer level maintained for many years prior to 1976.

Loan/deposit ratios are indicative of relative liquidity pressure and loan availability at all banks, but particularly at agricultural and other small banks that are generally unable to tap money-market sources of funds on a reliable basis or significant scale. In June 1979, large (\$100,000 or more) time certificates of deposit (both negotiable and nonnegotiable—breakdown is not available) constituted only 5.3 percent of total resources at agricultural banks, compared with 13.2 percent at other banks. These ratios have risen only slightly since the beginning of the adverse liquidity trend at agricultural banks. And, for most agricultural banks and other small banks, the Federal funds market remains a place to invest some liquid funds rather than a source of funds. On June 30, 1979, agricultural banks were net sellers of \$1.8 billion in Federal funds, equal to 2.3 percent of their total assets, while other banks were net buyers of \$61.9 billion, representing 5 percent of their total resources. Relative sales by agricultural banks have declined, however, from earlier levels around 4 percent of total assets. And, more agricultural banks have recently become net buyers of Federal funds. On June 30, 19 percent were net buyers, up sharply from levels under 12 percent in June of previous years (26 percent of non-agricultural banks were net buyers on June 30). The net purchases of

\$540 million by these agricultural banks represented 2.9 percent of their total resources.

Rural banking conditions often exhibit considerable regional variation which reflects geographical differences in agricultural developments. In each of the four Federal Reserve districts in which agricultural banks are concentrated, the Reserve banks conduct quarterly surveys of agricultural credit conditions that reveal such variation and also provide timely insights into the impact of liquidity and other trends on bank lending to farmers.

Figure 8 shows data from the Minneapolis survey, which covers a cross-section of banks involved in farm lending, including some of the larger banks. As shown by the solid lines on the chart, these ninth district banks as a group reached progressively tighter liquidity positions during the summer and fall of each of the past 3 years. As of the July 1979 survey, the proportion of banks reporting a "higher than desired" loan/deposit ratio rose above 50 percent for the first time in the history of this survey, which dates back to 1964.

The dashed line on the chart shows that one effect of this condition has been a rise in the proportion of banks that have refused or reduced a farm loan request because of a shortage of funds. Over time, responses to this and other survey questions about loan availability have been highly correlated with bankers' attitudes toward their loan/deposit ratios. Thus 34 percent of the banks expected to encounter problems in meeting normal farm loan requests during the fourth quarter of 1979, above the previous record of 30 percent that reported this condition in October 1974. On October 1, 1979, only 27 percent of the banks were actively seeking new farm loan accounts, which equaled the record low set in October 1974.

The next chart presents the results of similar surveys initiated more recently by the Federal Reserve Banks of Kansas City and Dallas, which cover primarily banks that are heavily involved in farm lending. In the Kansas City District, liquidity pressures at such agricultural banks mounted after wheat prices collapsed in the fall of 1979, and again when corn prices dropped sharply during the summer of 1977. The subsequent recovery in grain prices, the initiation of Federal payments to wheat producers, and the renewed availability of crop storage loans from the Commodity Credit Corporation combined to relieve liquidity conditions significantly at these banks. But, as the chart indicates, the proportion of banks reporting a loan/deposit ratio above the desired level rose sharply during the third quarter of this year. And, in the October 1 survey, only 34 percent said they were actively seeking new farm loan accounts, compared with 58 percent at the beginning of 1976.

The right-hand panel of figure 9 indicates that in the Dallas District, agricultural banks on average have somewhat lower loan/deposit ratios than in the more Northern Plains States, and that fewer of these banks now feel under liquidity pressure. The smaller role of wheat and corn production in this area helps to explain this experience, as it appears that the liquidity reductions at agricultural banks in other areas were triggered by the financial problems of these grain producers. During 1979, these Dallas District banks on average also indicated that farm loan demand was easing and that farm loan repayments were improving, which is contrary to the trends found by the other district surveys. In spite of these developments, however, the

proportion of banks that refused or reduced some farm loan requests because of a fund shortage remains above its 1976-77 level, and only about one-third of the banks have been actively seeking new farm loan accounts.

Much tighter conditions were reported by agricultural banks in the Corn Belt, as shown in figure 10. Many agricultural banks in the Chicago District experienced an undesired surge in their loan/deposit ratios after the 1977 drop in corn prices, and more recently liquidity pressures have increased still further. The prices and incomes of corn and soybean producers have not risen as much since 1977 as those of the wheatgrowers in the Great Plains area, who received a much greater boost from Federal farm programs. In addition, loan demands of Corn Belt livestock producers were spurred by the higher cost of feeder cattle and by expenses associated with expansion of hog production.

As shown on the chart, the proportion of agricultural banks in the Chicago District that consider their loan/deposit ratio to be undesirably high has exceeded 50 percent since the fall of 1978. At this level, many more banks are feeling such liquidity pressure than in either 1970 or 1974. Meanwhile, the imbalance between deposit growth and loan demand continues. In recent surveys, about three-fifths of the banks have been reporting greater demand for farm loans than a year earlier, while only about one-tenth of the banks have been indicating increased availability of funds for farm loans.

Interest rate trends at agricultural banks also often differ markedly from those at large banks, and the Federal Reserve System's relatively new "Survey of Terms of Bank Lending to Farmers" is helping to track these variations. As figure 11 indicates, the average farm loan rate at large banks has risen in line with increases in the national prime rate, while the average at other banks has risen less and more slowly. Since the bottoming out of average farm loan rates 2 years ago, the increase at large banks up to August 1979 had totaled 480 basis points, compared with 202 basis points at other banks. The difference in behavior tended to occur at bank asset size of about \$400 million, which is also roughly the size at which banks begin to make significant use of money-market sources of funds.

The new survey data also reveal that interest rate averages are now far less indicative of individual farm credit costs than they were a year or two ago. As shown in table 1, the range of rates charged on individual farm loans has widened greatly. In February 1977, a range of 3 percentage points—from 7.0 to 9.9 percent—encompassed 95 percent of the dollar amount of all loans made. But by 1978 the equivalent range had doubled, with significant amounts of farm lending in August occurring at rates ranging from 9 to 15 percent. Thus, while some farm borrowers have experienced increases no greater than 200 basis points, others have faced increases as large as 600 basis points.

The greater overall dispersion of farm loan rates has arisen in part because the difference between rates at large and smaller banks has widened. In August 1979, 78 percent of the volume of farm loans made by large banks was at an effective rate of 12 percent or higher, while 86 percent of the loan volume at smaller banks carried rates below 12 percent—and most were made on a fixed-rate basis. However, the range of rates on loans made by the smaller banks has also increased considerably since mid-1978, and this has contributed significantly to the greater overall variation.

While average farm loan rates at small banks have risen much less than at large banks, data from the Reserve bank surveys indicate that the increase at rural banks has actually been relatively large and rapid compared with previous periods of monetary restraint. For instance, the average "typical" rate charged on feeder cattle loans by banks surveyed in the Chicago District had by October 1 already risen by 294 basis points since the lows of 1977, compared with total increases of 142 and 161 basis points during the 1967-70 and 1972-74 upswings, respectively. At banks in the Minneapolis survey, the average "most common" rate on short term farm loans had risen by 281 basis points since its 1975 low, compared with a total rise of 109 basis points during the 1972-74 period.

As a factor contributing to increased cyclical variation in their farm loan rates, rural banks have noted that the new 6-month money-market certificate of deposit, which most rural banks are offering, has exposed their banks to significant cyclical change in the cost of their loanable funds. At the end of June 1979, about 1 year after their introduction, these certificates comprised 8.5 percent of the total resources of agricultural banks nationally (banks at which farm loans represent one-fourth or more of total loans), compared with 4.2 percent at other banks. At some agricultural banks the proportion was considerably above this average. Thus most agricultural banks probably encountered a greater degree of cyclical cost pressure on their loan rates than they had previously experienced.

Over the past two decades, a sequence of structural changes in the practices of and regulations affecting financial institutions has probably resulted in greater cyclical variation in interest rates. A discussion of these changes and their consequences is presented in "Farm Risks from Instability in Financial Markets," from "Risk Management in Agriculture: Behavioral, Managerial, and Policy Issues," Peter J. Barry, editor, AE-4478, Department of Agricultural Economics, University of Illinois, July 1979.

For many farm borrowers at nonbank lending institutions such as the Farm Credit System and the Farmers Home Administration, interest rates presently remain at relatively low levels. Under the variable rate plans of the Farm Credit System banks, all borrowers with outstanding loans are charged rates that reflect the average cost of funds. Changes in these rates thus lag behind changes in money-market rates, especially at the Federal land banks, as shown by the last two columns of table 2.

During periods of relatively high interest rates, it is also important to remember that sellers of farms are the largest source of financing for farm real estate transfers. These individuals often want to finance their sales because of income tax considerations. During previous cyclical upswings in interest rates, the rates negotiated on these transactions apparently rose relatively slowly, perhaps primarily in step with changes in rates charged by the Federal land banks. Similar experience can be expected in this cycle.

With the exception of the business loan rates in the first two columns of the table, the last entries all predate the Federal Reserve System's policy actions of early October. Further increases in farm loan rates have therefore undoubtedly occurred at many rural banks and other farm lending institutions. And, given the various lags that have been noted, further near-term increases can be expected.



TABLE 1.—PERCENTAGE DISTRIBUTION OF FARM PRODUCTION LOANS AT BANKS, BY EFFECTIVE INTEREST RATE<sup>1</sup> <sup>2</sup>

Effective interest rate (percent)	February 1977	May 1977	August 1977	November 1977	February 1978	May 1978	August 1978	November 1978	February 1979	May 1979	August 1979
All loans.....	100	100	100	100	100	100	100	100	100	100	100
Under 7.....	1	7	2								
7 to 7.9.....	8	6	11	3	1						
8 to 8.9.....	46	43	48	42	38	35	20	8	4	4	2
9 to 9.9.....	41	40	34	48	50	48	50	32	17	14	11
10 to 10.9.....	3	3	4	7	9	11	22	37	35	32	29
11 to 11.9.....		1		1	1	6	6	11	19	22	33
12 to 12.9.....							1	7	12	12	14
13 to 13.9.....								4	6	10	7
14 to 14.9.....									6	5	5
15 and over.....									1	1	1
Addendum: Average effective interest rate (percent) <sup>2</sup> at:											
All banks.....	8.82	8.74	8.73	9.06	9.16	9.31	9.62	10.36	11.01	11.20	11.28
Large banks <sup>3</sup> .....	8.34	8.08	8.40	9.13	9.32	9.61	10.37	11.73	12.53	12.82	12.88
Other banks.....	8.95	8.95	8.91	9.06	9.11	9.17	9.34	9.98	10.45	10.71	10.93

<sup>1</sup> Percentage distribution of the total dollar amount of nonreal estate farm loans of \$1,000 or more made by insured commercial banks during the week covered by the survey.

<sup>2</sup> The approximate compounded annual interest rate on each loan is calculated from survey data on the stated rate and other terms of the loan. In computing the average of these estimated effective rates, each loan is weighted by its dollar amount.

<sup>3</sup> "Large banks" are banks in survey strata 1-3, corresponding approximately to banks with over \$400,000,000 in total assets as of September 1978.

Source: Federal Reserve quarterly survey of terms of bank lending to farmers.

TABLE 2.—AVERAGE INTEREST RATES ON BUSINESS AND FARM BORROWINGS

[In percent]

Year/quarter	Prime 4- to 6-mo commercial paper <sup>1</sup>	Business loans at banks <sup>2</sup>		Farm loans at banks					Farm credit system <sup>7</sup>	
		Prime rate, large banks	Average, all banks <sup>3</sup>	Short-term farm loans, 9th district <sup>4</sup>	Feeder cattle loans 7th district <sup>5</sup>	Non-real-estate farm loans, United States <sup>2,3</sup>			Production credit associations	Federal land banks
						Large banks <sup>6</sup>	Other banks	All banks		
1976/4	5.2	6.25	7.6	9.2	8.8	8.3	8.9	8.8	8.2	8.6
1977/1	4.7	6.25	7.6	9.2	8.7	8.1	8.9	8.7	8.2	8.5
1977/2	4.9	6.25	7.6	9.2	8.7	8.1	8.9	8.7	8.1	8.4
1977/3	5.4	6.75	7.9	9.2	8.7	8.4	8.4	8.7	8.9	8.3
1977/4	6.6	7.75	8.6	9.2	8.8	9.1	9.0	9.1	8.0	8.3
1978/1	6.8	8.00	8.9	9.2	8.9	9.3	9.1	9.2	8.4	8.2
1978/2	6.9	8.00	9.1	9.2	8.9	9.6	9.2	9.3	8.7	8.3
1978/3	7.9	9.00	10.0	9.4	9.1	10.4	9.3	9.5	9.0	8.3
1978/4	9.0	10.50	11.4	9.5	9.4	11.7	10.0	10.4	9.2	8.4
1979/1	10.3	11.75	12.2	10.2	10.1	12.5	10.4	11.0	10.0	8.7
1979/2	9.9	11.75	12.3	10.4	10.5	12.8	10.7	11.2	10.6	9.0
1979/3	9.8	11.75	12.3	10.8	10.8	12.9	10.9	11.3	10.9	9.3
1979/4	13.2	15.25	15.4	11.8	11.7	13.2	11.3	11.3	11.0	9.3

<sup>1</sup> Average, first month of quarter.

<sup>2</sup> First full business week of second month of quarter.

<sup>3</sup> Dollar-weighted average of effective rates on loans of \$1,000 or more made in the week indicated.

<sup>4</sup> Average of most common rates at banks representative of farm lending, first day of quarter.

<sup>5</sup> Average of typical rates at agricultural banks, first day of quarter.

<sup>6</sup> "Large banks" (survey strata 1-3) correspond roughly to banks with over \$400 million in total assets in 1978.

<sup>7</sup> Unweighted average of quoted rates, first day of quarter (calculated by the authors). Stock purchases required of borrowers from these cooperatives are not taken into account in the rates shown.

TABLE 3.—ESTIMATED PERCENTAGE CHANGES IN INCOME FLOWS, 1979-80, IMPLIED BY USDA FORECAST OF \$25,000,000,000 FOR OPERATORS' NET FARM INCOME IN 1980, BY VALUE-OF-SALES CLASSES AS OF 1978

Type of income flow	All farms	Value of sales in 1978 (dollars)						
		100,000 and over	40,000 to 99,999	20,000 to 39,999	10,000 to 19,999	5,000 to 9,999	2,500 to 4,999	Under 2,500
<b>Farm income:</b>								
<b>Net income:</b>								
Total.....	-19	-33	-13	-11	-12	-12	-11	-1
Money.....	-32	-38	-18	-18	-33	Loss	Loss	Loss
<b>Cash flow:</b>								
Total.....	-7	-20	-6	-3	-2	-1	1	6
Money.....	-13	-22	-8	-5	-7	-9	-12	-3
<b>Farm and off-farm income:</b>								
<b>Net income:</b>								
Total.....	-3	-26	-8	-2	3	7	9	10
Money.....	-4	-29	-10	-4	1	7	9	11
<b>Cash flow:</b>								
Total.....	0	-16	-3	1	4	7	9	10
Money.....	-1	-18	-4	0	4	7	9	11

TABLE 4.—ESTIMATED PERCENTAGE CHANGES IN INCOME FLOWS, 1979-80, IMPLIED BY A FORECAST OF \$20,000,000,000 FOR OPERATORS' NET FARM INCOME IN 1980, BY VALUE-OF-SALES CLASSES AS OF 1978

Type of income flow	All farms	Value of sales in 1978 (dollars)						
		100,000 and over	40,000 to 99,999	20,000 to 39,999	10,000 to 19,999	5,000 to 9,999	2,500 to 4,999	Under 2,500
<b>Farm income:</b>								
<b>Net income:</b>								
Total.....	-36	-58	-25	-21	-23	-26	-23	-4
Money.....	-56	-65	-33	-32	-56	Loss	Loss	Loss
<b>Cash flow:</b>								
Total.....	-19	-36	-14	-10	-9	-7	-4	4
Money.....	-25	-39	-17	-13	-15	-21	-26	-15
<b>Farm and off-farm income:</b>								
<b>Net income:</b>								
Total.....	-10	-47	-17	-9	-2	4	8	10
Money.....	-13	-45	-21	-12	-4	3	7	10
<b>Cash flow:</b>								
Total.....	-5	-31	-10	-4	1	5	8	10
Money.....	-8	-33	-12	-5	0	5	8	10

TABLE 5.—PERCENTAGE DISTRIBUTION OF SELECTED INCOME AND BALANCE SHEET ITEMS, BY VALUE-OF-SALES CLASSES AS OF 1978

Item	All farms	Value of sales in 1978 (dollars)						
		100,000 and over	40,000 to 99,999	20,000 to 39,999	10,000 to 19,999	5,000 to 9,999	2,500 to 4,999	Under 2,500
Number of farms.....	100	7.0	14.6	12.1	11.1	10.5	10.4	34.3
Cash receipts.....	100	56.3	25.0	9.9	4.5	2.2	1.1	.9
Production expenses.....	100	57.6	22.6	8.9	4.5	2.6	1.6	2.3
Real estate.....	100	33.5	22.5	13.5	8.1	5.5	4.8	12.1
Machinery.....	100	28.6	27.2	15.0	8.5	5.6	4.3	10.8
Nonmoney income.....	100	11.9	17.5	12.0	9.9	9.3	9.2	30.2
Off-farm income.....	100	5.9	7.8	7.4	8.7	11.1	13.1	46.0
Outstanding debt.....	100	38.7	32.1	15.6	5.1	3.0	2.0	3.6

TABLE 6.—NATIONAL DATA AND PROJECTIONS UNDERLYING THE RESULTS REPORTED IN TABLES 3 AND 4

[In billions of dollars]

Item	1978	Estimated, 1979	USDA fore- cast, 1980	Low forecast, 1980
Net income.....	27.9	31.0	25.0	20.0
Nonmoney income.....	9.1	9.8	10.6	10.6
Money net income.....	18.7	21.2	14.4	9.4
Production expenses.....	98.1	114.0	125.0	128.0
Cash receipts.....	116.8	135.2	139.4	137.4
Capital consumption allowances.....	16.1	18.6	20.4	20.4
Money net income.....	18.7	21.2	14.4	9.4
Money cash flow.....	34.9	39.8	34.8	29.8
Nonmoney income.....	9.1	9.8	10.6	10.6
Cash flow.....	44.0	49.6	45.4	40.4
Off-farm income.....	34.3	38.0	42.2	42.2
Money net income.....	18.7	21.2	14.4	9.4
Combined money net income.....	53.0	59.2	56.6	51.6
Nonmoney income.....	9.1	9.8	10.6	10.6
Combined net income.....	62.2	69.0	67.2	62.2
Capital consumption allowances.....	16.1	18.6	20.4	20.4
Combined money net income.....	53.0	59.2	56.6	51.6
Combined money cash flow.....	69.2	77.8	77.0	72.0
Nonmoney income.....	9.1	9.8	10.6	10.6
Combined cash flow.....	78.3	87.6	87.6	82.6

Note the following special definitions for some items: "Net income" and "money net income" includes the value of any additions to inventories of livestock and stored crops; "nonmoney income" includes only the imputed rental value of operators' dwellings and the value of farm products consumed in farm households; "cash receipts" includes the change in inventories, government payments, and "other" farm income.

Figure 1

Capital gains compared with net farm income

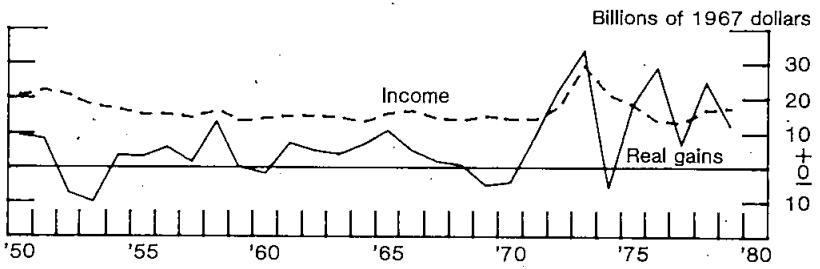
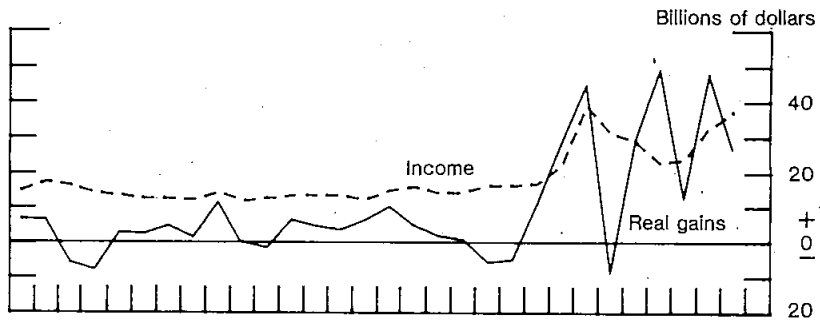
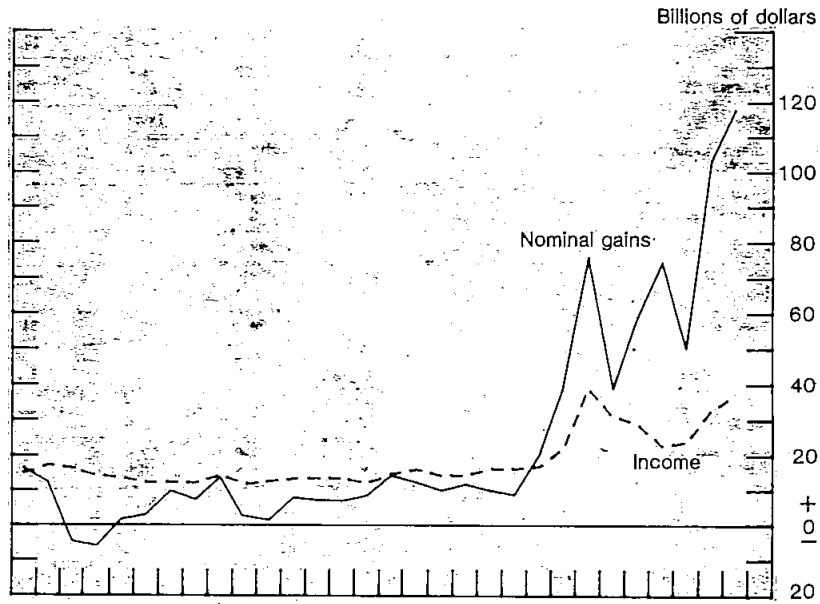


Figure 2

Return to assets compared with asset values

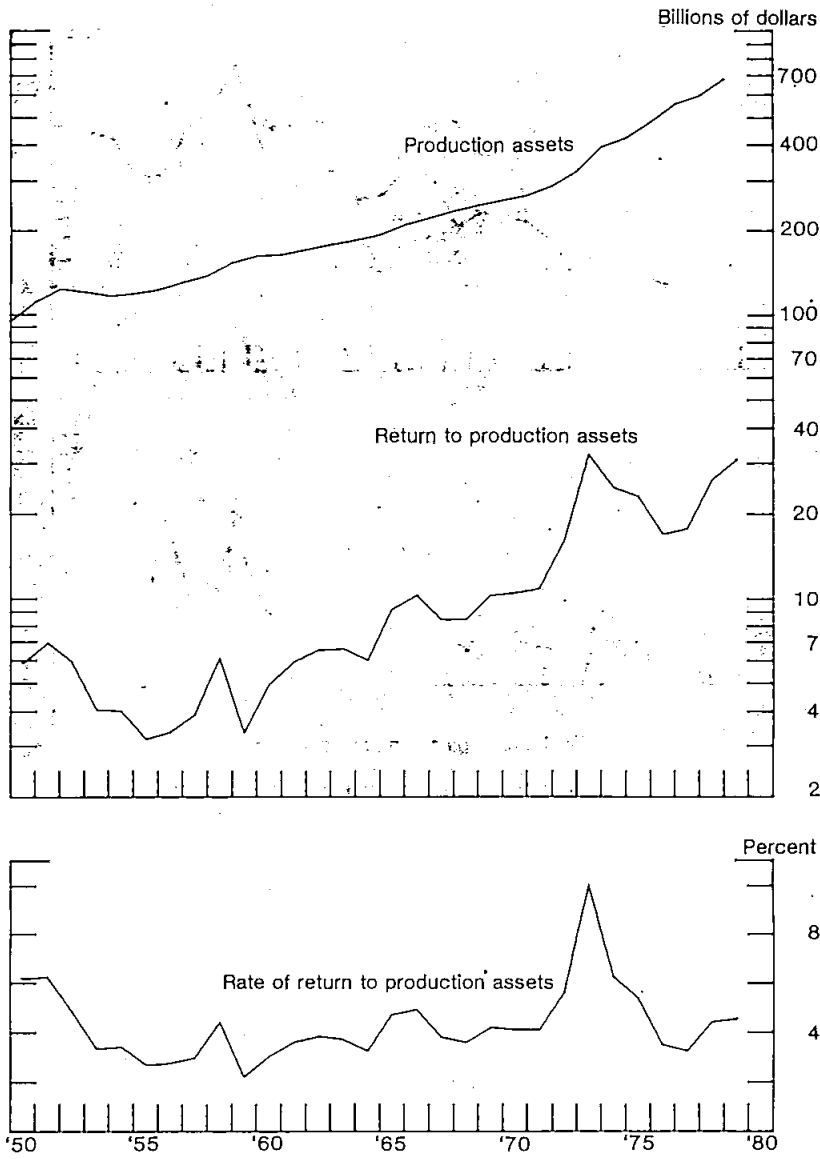


Figure 3

### Return to assets compared with real capital gains 1967 dollars

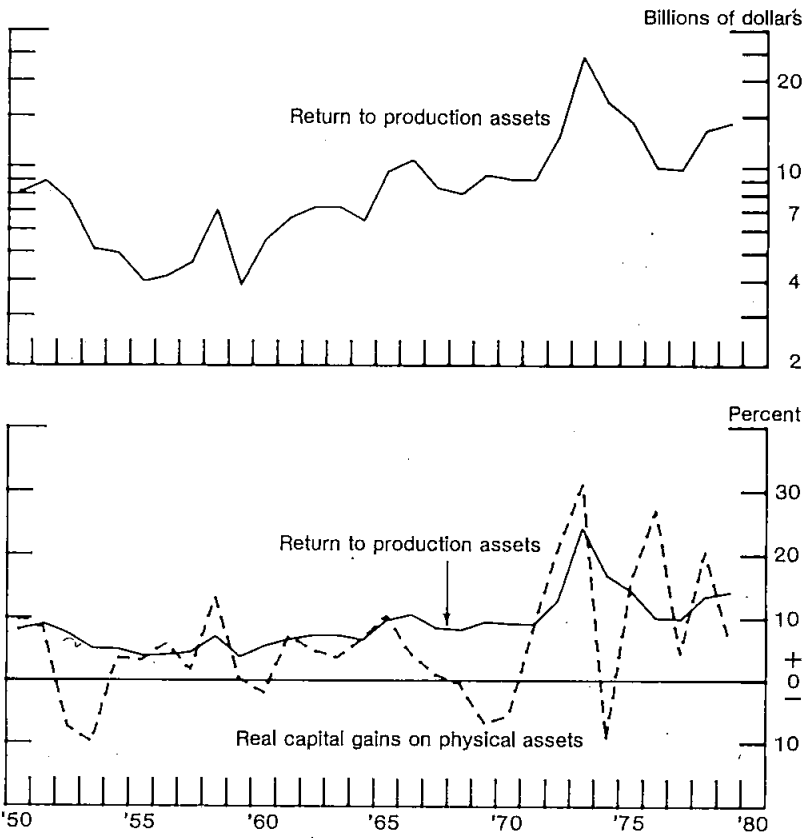


Figure 4

Debt financing compared with capital formation

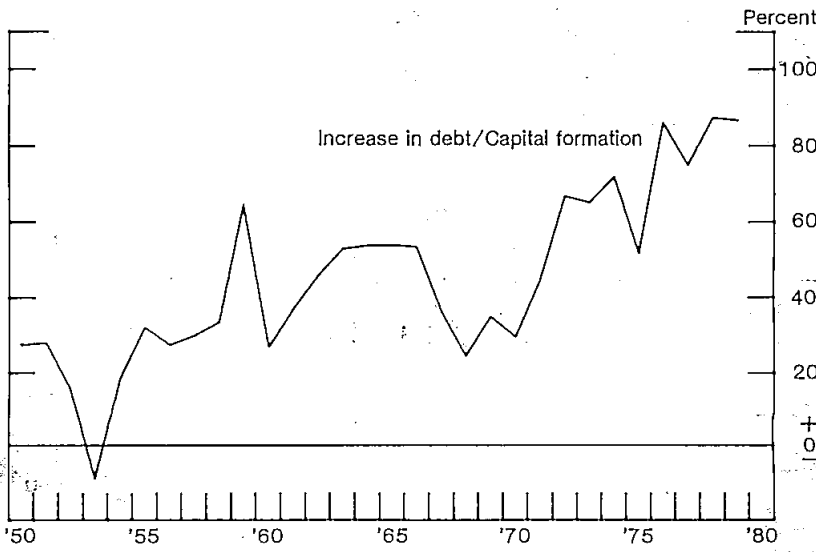
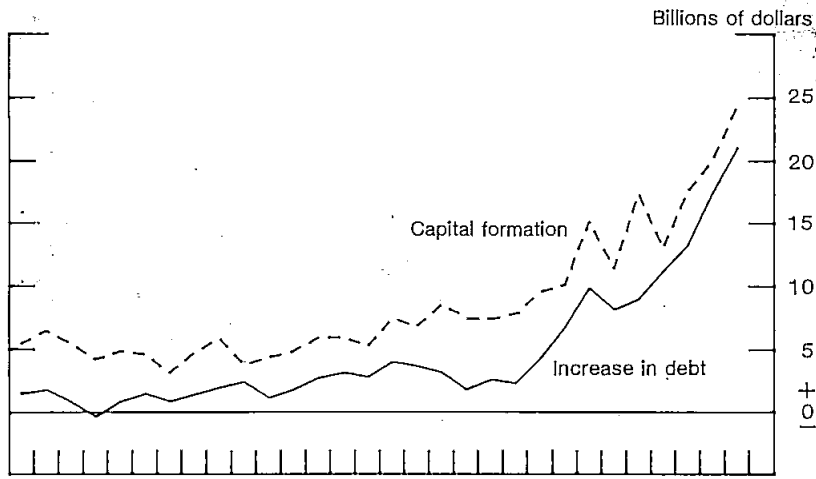




Figure 5

Debt financing compared with income flows

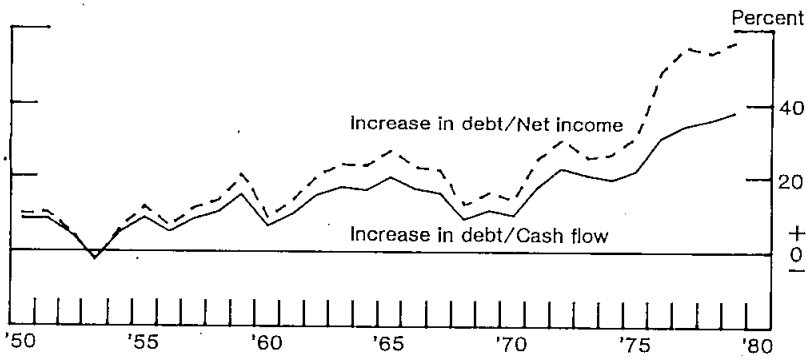
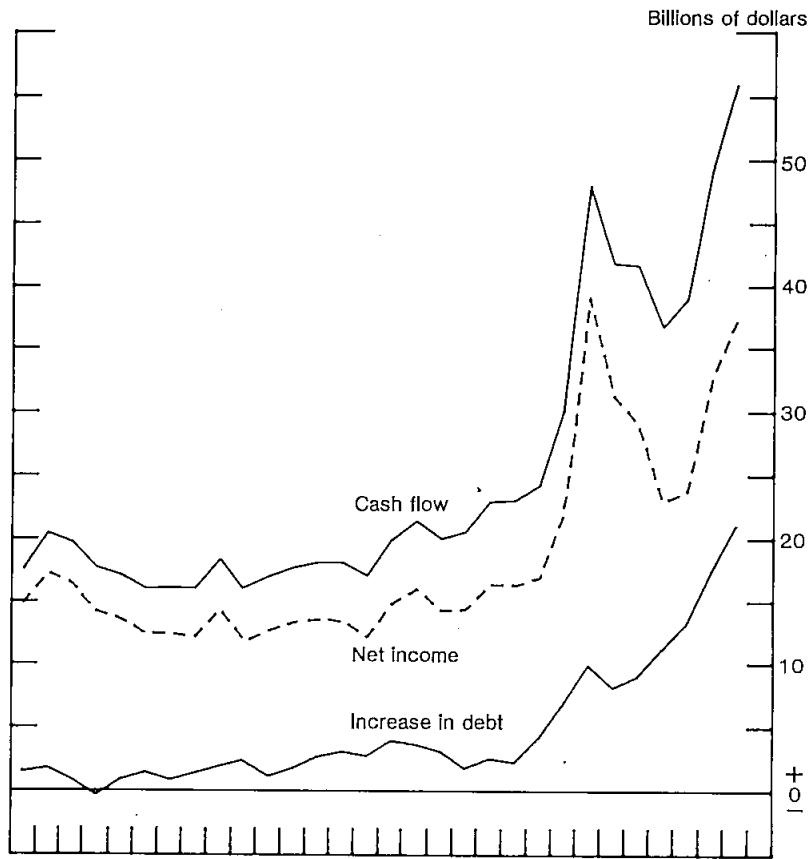


Figure 6

**Average loan/deposit ratio at insured commercial banks  
Semiannual**

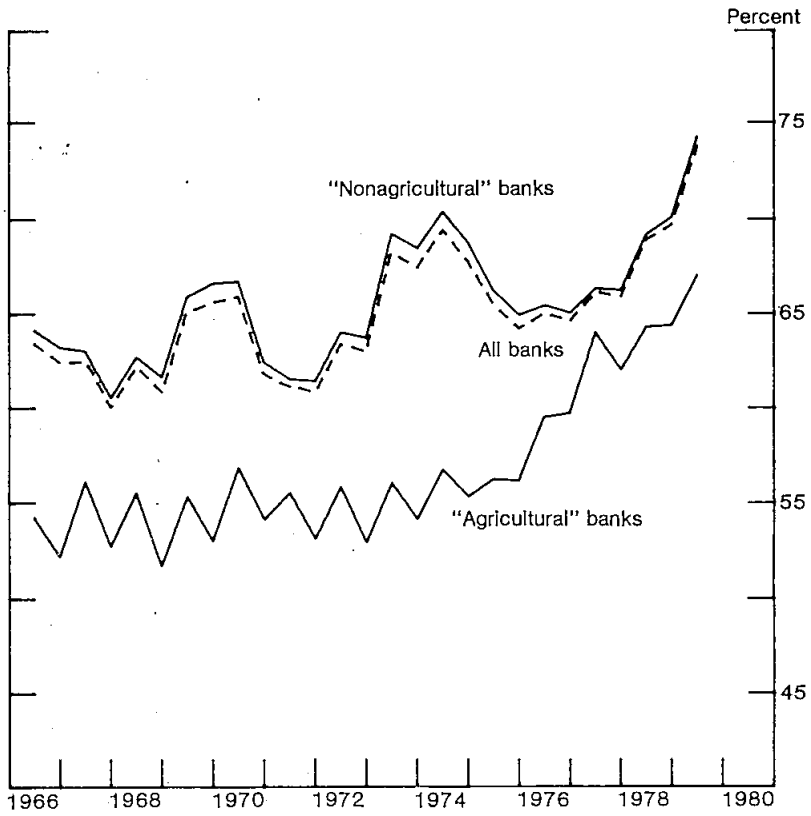


Figure 7

**Average loan/deposit ratio at Insured commercial banks**  
Quarterly

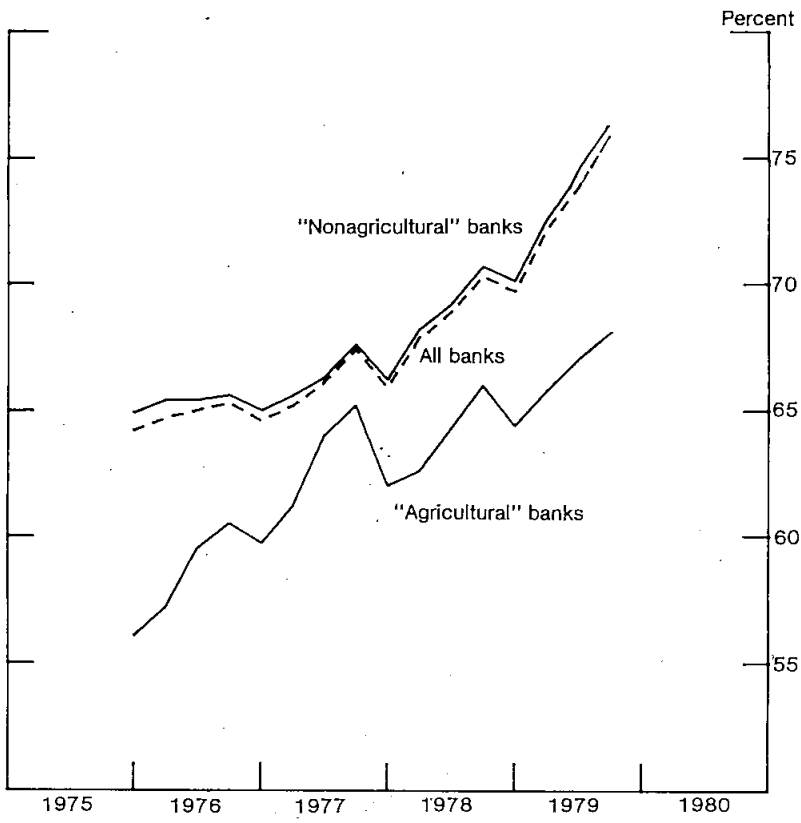
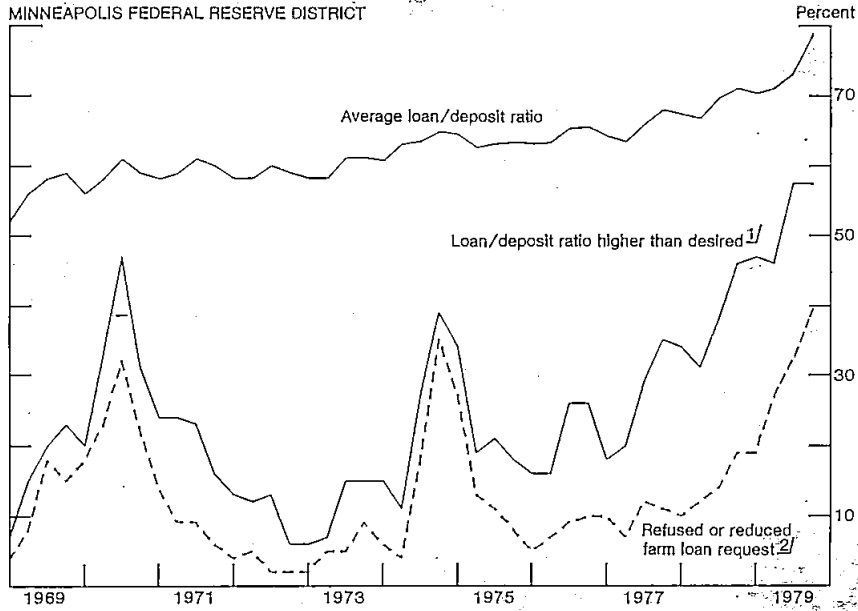


Figure 8  
Liquidity conditions at bank active in farm lending



Source: Survey of Agricultural Credit Conditions, Federal Reserve Bank of Minneapolis.  
1/ Percentage of banks reporting that loan/deposit ratio is higher than desired.  
2/ Percentage of banks that refused or reduced a farm loan request during the previous quarter because of a shortage of funds.

Figure 9  
Liquidity conditions at agricultural banks

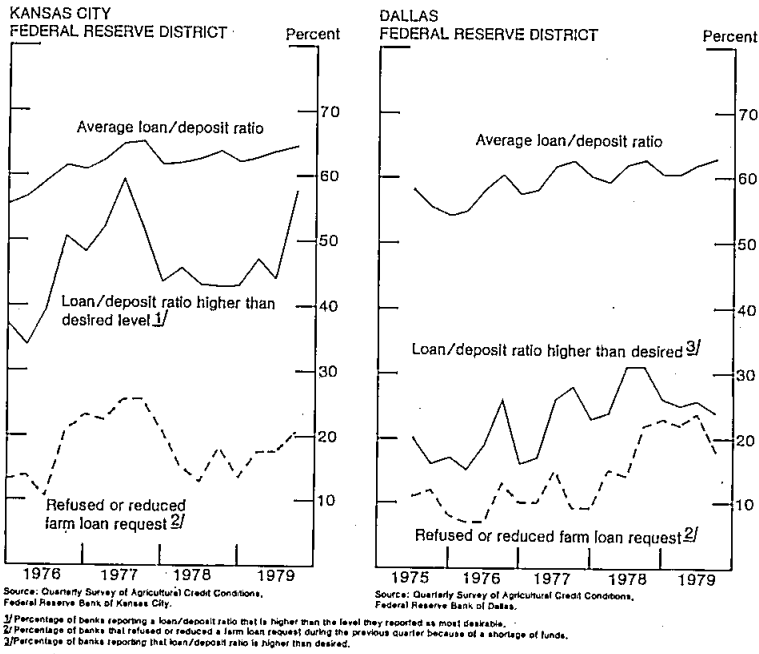


Figure 10  
Liquidity conditions at agricultural banks

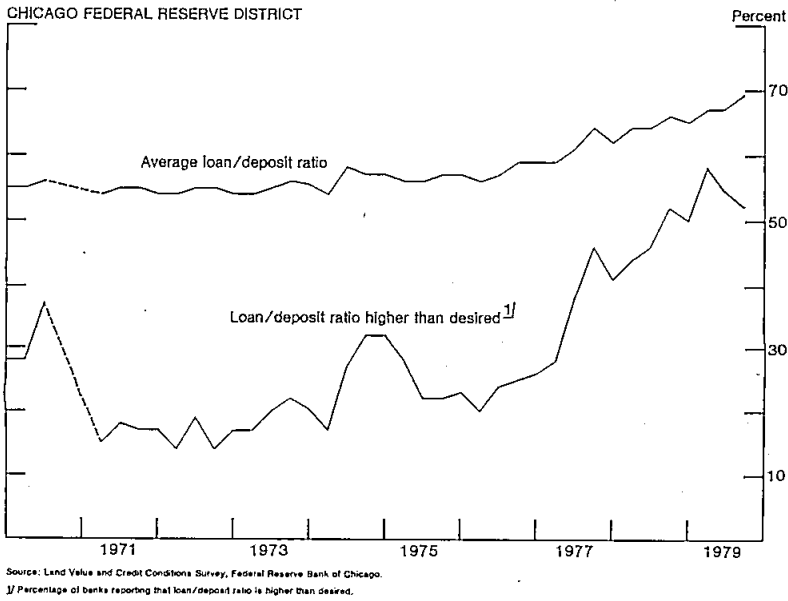
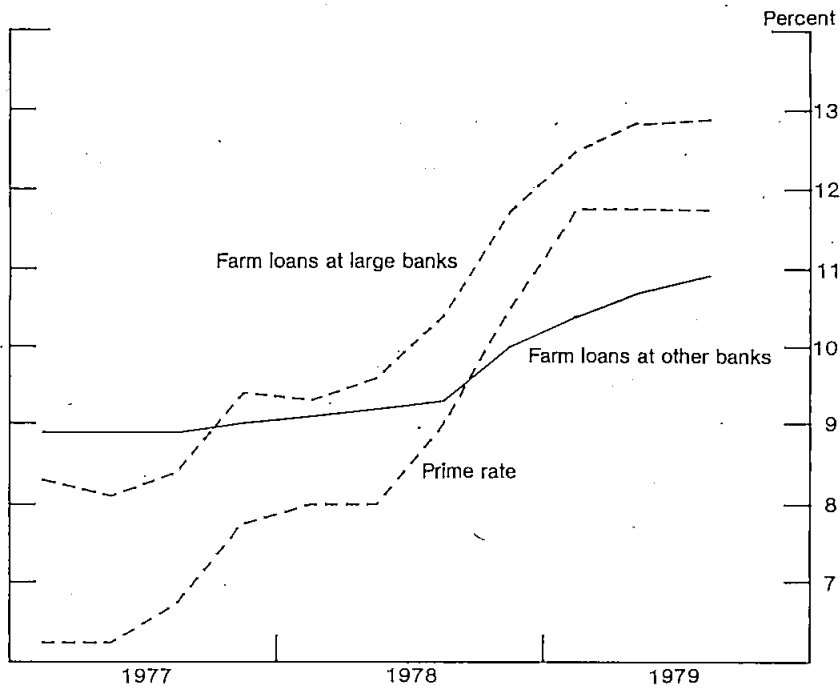


Figure 11  
**Interest rates charged by commercial banks**  
 First Week of Second Month of Quarter



Source: Federal Reserve Quarterly Survey of Terms of Bank Lending to Farmers.

"Large banks" are banks in survey strata 1-3, corresponding approximately to banks which now have over \$400 million in total assets.