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## THE FARM REAL ESTATE SITUATION, 1934-35

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### THE SITUATION IN GENERAL

Developments in the farm real estate situation during the year 1934-35<sup>1</sup> brought a continuation of those that were conspicuous during the previous year. Values increased again, forced sales as a result of debt difficulties and failure or inability to pay taxes declined further, the frequency of voluntary sales increased again, and the compromising, refinancing, or other adjustment of farm-mortgage debt was continued.

These developments are a natural sequel to those of a year ago, and were made possible by the continued increase in income from agricultural production, and to the policies of the Farm Credit Administration and of private lending agencies in respect to working out adjustment of distressed farm-mortgage debt.

The continued rise of farm real estate values<sup>2</sup> brought the Bureau index of estimated average value per acre of farm real estate to 79 percent of the pre-war level (values in 1912-14=100 and taken as the pre-war level).<sup>3</sup>

<sup>1</sup>The farm real estate year ordinarily covers roughly a 12-month period ending about Mar. 1. Possession of farms by lease or sale is commonly given at that time, and occupancy usually is considered as beginning on that date. Unless otherwise stated, therefore, the term "1934-35" denotes the 12-month period ended on or about Mar. 1, 1935. Most of the real estate data here used pertain to that period. Other data are available for the calendar year only. The term "1934" denotes the calendar year ended Dec. 31, 1934.

<sup>2</sup>The term "real estate" as used throughout this circular includes the land and buildings and other permanent improvements.

<sup>3</sup>Preliminary State estimates of changes in values are published annually in the May issue of Crops and Markets.

This represents a rise of 3 points from the average of 76 for the year ended March 1, 1934, and a rise of 6 points from the low point, 73, for the year ended March 1, 1933. This index is based on reports from crop correspondents to the Bureau of Agricultural Economics.<sup>4</sup>

The increases in value were distributed throughout most of the principal farming sections of the United States and thereby attest the broad extent to which agriculture has felt improvement during the last 2 years. The greatest advances relative to a year ago were reported from the Southern States, and substantial gains in parts of the Middle West reflect continued improvement. Values in certain areas of the Middle West and Southwest were adversely influenced as a result of the drought. In the New England and Middle Atlantic States values changed only moderately, if at all.

As compared with values a year ago, 30 States reported increases, 13 reported no change, and 5 reported decreases in values.

The index for 10 States is higher than the pre-war base. Four of these States are in New England, 1 is in the Middle Atlantic group, 4 are in the South, and 1 is on the Pacific coast.

In eight States, located principally in New England and in the South, values are no more than 10 percent below the pre-war level. Average values in the North Central States average approximately two-thirds of pre-war values.

One of the most encouraging elements in the situation was the further increase in the prices of the principal groups of farm commodities. Grains, which for the year 1932 averaged 44 percent of the August 1909 to July 1914 base, averaged 93 for 1934 and 109 for the first 7 months of 1935. The index for meat animals, which reached an annual low of 60 for 1933, averaged 68 in 1934 and 113 for the first 7 months in 1935. Dairy products, although their prices did not go so low during the depression years as did those of grains and of meat animals, also showed encouraging increases. The Bureau index of dairy products averaged 82 for 1933, 96 for 1934, and 109 for the first 7 months in 1935. Increases in cotton prices since the low of 1932 have been particularly encouraging. The Bureau index of prices of cotton and cottonseed increased from 47 percent of pre-war prices in 1932 to 64 in 1933, 99 in 1934, and 104 in the first 7 months of 1935.

The Bureau index of prices received by farmers for all principal commodities increased from 65 in 1932 to 70 in 1933, 90 in 1934, and 107 in the first 7 months of 1935. On the other hand, prices paid by farmers for commodities bought have increased also and averaged 127 percent of pre-war prices during the first half of 1935. This index did not decline below 100 during the depression. As a result, the ratio of prices received by farmers to prices paid by them has shown a smaller increase than have prices received by farmers. The ratio of prices received to prices paid by farmers reached a low of 61 in 1932, increased to 64 in 1933 and to 73 in 1934, and averaged 85 for the first 7 months of 1935.

<sup>4</sup>In view of the small number of bona fide sales occurring in many sections of the country during the depression years, a possible bias toward holding prices may exist in the estimates of value obtained in this survey for that period. Even though the estimates may thus require confirmation by subsequent actual voluntary sales, their trend should be significant. Estimates would seem to be a prerequisite to the bids and offers out of which sale prices are made. During the last real estate year the increasing frequency of voluntary sales has provided correspondents with a more satisfactory basis for their reports.



Income from farm production is of even more interest than the trend of prices. The gross income from farm production was estimated at \$6,706,000,000 for 1934, not including rental and benefit payments. This is an increase of some \$600,000,000 over the income of 1933 and an increase of some \$1,400,000,000 over that of 1932. Including rental and benefit payments, gross income was estimated at \$7,300,000,000 for 1934. Even including rental and benefit payments, however, gross income from farm production was only about two-thirds the average income during the period 1922-29.

The expenditures of farmers in connection with the operation of their farms increased considerably less than did income. Total expenditures amounted to about \$2,700,000,000, an increase of about \$240,000,000 above the low of 1933. Taxes payable declined further; wages to hired labor increased moderately as did operating expenditures. The balance of income available for all capital, unpaid labor, and management was estimated at \$4,600,000,000, an increase from the \$2,890,000,000 for 1932. This compares with an average of about \$6,900,000,000 for the period 1924-29.

Changes of ownership of farm real estate showed encouraging trends during the year. The frequency of transfer of ownership as a result of difficulties connected with debt declined from an average of 28.0 farms per 1,000 of all farms to 21.0. The decreases were general and occurred in nearly all States.

Similarly, changes of ownership as a result of failure to pay taxes declined substantially in all areas, the average for the United States being 7.3 farms per 1,000 of all farms for the year ended March 1935, as compared with 11.1 farms per 1,000 of all farms for the year ended March 1934.

Particularly encouraging is the continued increase in the number of voluntary sales and trades of farm real estate, which for the year ended March 1935 were estimated at 19.4 farms per 1,000 of all farms as compared with 17.8 for the preceding year. The year 1935 is the third in which the major agricultural areas, as well as the United States as a whole, reported increasing frequency of voluntary transfers. In calculating the frequency of transfer, plantations and ranches have been considered as farms.

The farm population again increased in number and as of January 1, 1935, it was estimated at 32,779,000 as compared with 32,509,000 a year earlier (2).<sup>5</sup> The number of persons leaving farms for cities was less than during the previous year, as was also the number of persons arriving at farms from cities. The net movement, however, was from farms to cities and was less than a year ago, when the trend during the calendar years 1930, 1931, and 1932 was reversed. The increase in farm population was not uniform throughout the Nation, the number of persons on farms being smaller on January 1, 1934, than it was the year before in the West North Central and Mountain States; in all other regions the number was greater.

The continuation of the refinancing, interest reduction, and debt-adjustment program inaugurated by the Farm Credit Administration following its organization in May 1933 has been an extremely important factor during 1934 in contributing toward the improved situation.

<sup>5</sup> Italic figures in parentheses refer to Literature Cited, p. 51.

From May 1933 to July 1935 a total of over \$1,775,000,000 was loaned by the Federal land banks and the Land Bank Commissioner. During 1934 loans closed by the Federal land banks totaled \$730,367,140, and those by the Land Bank Commissioner \$553,136,316, making a total of \$1,283,503,456 as compared with \$222,446,223 during 1933 (7, *Rept.* 2).

As during the preceding year, the trend of total farm-mortgage investments of commercial agencies during 1934 declined in contrast to the marked increase in the loans of the Federal land banks and the Land Bank Commissioner. Farm-mortgage holdings of member banks declined from \$318,000,000 at the end of December 1933, to \$262,000,000 at the end of December 1934 and to \$259,000,000 at the end of June 1935. Holdings of joint stock land banks declined approximately one-third, from \$392,000,000 to \$261,000,000 during 1934 and by the end of May 1935 they had declined an additional \$53,000,000, to \$208,000,000. The holdings of life insurance companies, as indicated by those of 39 concerns having 82 percent of all legal reserve assets, declined nearly one-quarter, from \$1,234,000,000 to \$950,000,000 (6) during the year, and by the end of June 1935 to \$855,000,000.

Since May 1933 farm-mortgage credit needs of farmers have been financed primarily by the Federal land banks and the Land Bank Commissioner. This has resulted from the restricted lending activities of the usual private sources of farm-mortgage credit and from the urgent need for the refinancing provided for by the Farm Credit Administration. An increasing interest in farm-mortgage lending, as evidenced by new mortgages recorded, however, has been developing on the part of banks, insurance companies, and other private creditors.<sup>6</sup> During the first quarter of 1935, life insurance companies increased their mortgage recordings 60 percent over the first quarter of 1934; banks and trust companies increased theirs 53 percent, and individuals, 18 percent; but the mortgage recordings of mortgage companies decreased 30 percent.

Notwithstanding the increased activity of the private sources, the Federal land banks and the Farm Loan Commissioner continued as the principal sources of farm-mortgage credit during the first quarter of 1935. They advanced 51 percent of the total of farm mortgages recorded during that period, as compared with 65 percent during the last quarter of 1934 and 77 percent during the first quarter of 1934.

In addition to the refinancing activities of the Federal land banks, which have been helpful to those not at the time indebted to banks, there have been the additional activities of reductions of interest rates, the granting of numerous extensions, and the suspension of principal payments on loans in good standing. These activities have been of material aid to those already in debt to the land banks.

The reduced interest rates made possible by the Emergency Farm Mortgage Act continued, of course, during the first half of 1935. The act provided that interest installments payable within the 5-year period beginning July 11, 1933, should not exceed 4½ percent per annum on mortgage loans made through national farm loan asso-

<sup>6</sup> [UNITED STATES] FARM CREDIT ADMINISTRATION. PRIVATE SOURCES INCREASE FARM MORTGAGE LOAN BUSINESS. Press Serv. 7-47. July 7, 1935. [Mimeographed.]

ciations, or agents, or purchased from joint stock land banks, which were outstanding on July 11, 1933, or made prior to May 12, 1935. Interest on loans made directly by the land bank were 0.5 percent higher than on those made through national farm loan associations (7, *Rept. 1*).

Under the provisions of the Farm Mortgage Act of 1935, interest rates on all loans through national farm loan associations were further reduced to 3½ percent for all interest payable in the 1-year period beginning July 1, 1935, and to 4 percent for all interest payable in the 2-year period beginning July 1, 1936. Interest rates on direct loans were reduced to 4 and 4½ percent, respectively, for the periods in question.

The land banks have also made extensions and arranged new amortization schedules when circumstances justified the action. As of December 31, 1934, deferments of principal payments in force totaled \$14,060,419, and extension of interest and other payments totaled \$35,140,928.

The activities of the Farm Credit Administration have thus exercised a very definite influence on the farm real estate situation during the year and have helped a large number of farmers to retain their farms when they might otherwise have lost them. In addition, much of the pressure for liquidation that has hung so heavily on farm real estate during recent years has been removed.

Of great significance over a longer period is the series of reductions beginning April 1, 1935, which reduced the contract rate on new loans through national farm loan associations to 4 percent, the lowest contract rate in the history of the land bank or probably of any other large lending agency. The rate of 4 percent applies during the entire life of the loan and is to be distinguished from the reduction to 3½ percent for the emergency period only.

This lower contract rate is a direct reflection of the lower interest rate carried by Federal farm loan bonds and is consistent with the policy of the Farm Credit Administration to provide farm-mortgage credit at the lowest possible rate consonant with the rates on the new bond issues.

#### FARM REAL ESTATE VALUES

##### VALUES CONTINUE UPWARD IN MOST STATES

For a second year in succession farm real estate values in the principal agricultural sections of the United States have increased. For the Nation as a whole, the Bureau index of average value per acre of farm real estate rose 3 points, from 76 percent of pre-war value to 79 percent (table 1). The gains reported during the past year substantiate the reports of gains a year earlier and indicate that continued progress has been made toward overcoming the difficulties attendant upon the previous period of declining values (fig. 1).



TABLE 1.—*Farm real estate: Index numbers of estimated value per acre, by geographic divisions and States, 1912-35*<sup>1</sup>  
 [1912-14=100 percent]

Geographic division and State	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	Net change over 1934 <sup>2</sup>		
																									Per- cent	+3	+4
United States.....																											
Geographic divisions:																											
New England.....	99	101	100	99	102	112	117	123	140	135	134	130	128	127	128	127	127	126	127	126	127	116	105	104	104	0	0
Middle Atlantic.....	98	100	102	100	104	112	117	121	136	127	118	116	114	114	113	111	110	109	106	101	96	82	82	83	83	+1	+4
East North Central.....	97	100	103	104	110	116	127	135	161	151	132	128	121	116	111	104	101	100	96	87	73	68	67	68	+3	+4	
West North Central.....	97	100	103	105	114	122	134	147	184	174	160	142	132	126	121	115	113	112	109	97	81	64	67	89	+5	+1	
South Atlantic.....	98	100	103	98	108	119	135	161	198	173	146	142	151	148	149	137	134	132	128	116	96	80	87	92	+5	+3	
East South Central.....	97	100	103	99	109	120	140	162	199	163	149	149	142	141	143	139	133	130	129	123	117	97	85	93	+5	+9	
West South Central.....	96	100	104	100	103	116	134	143	177	159	136	132	136	144	144	144	139	137	136	121	97	82	88	91	+3	+3	
Mountain.....	98	102	100	98	98	106	117	130	151	133	122	115	110	105	103	101	101	102	100	82	69	69	70	71	+1	+1	
Pacific.....	94	99	106	107	111	122	129	134	156	155	151	148	147	146	144	143	142	142	142	140	118	96	97	101	+4	+4	
New England:																											
Maine.....	100	102	98	96	98	110	115	124	142	132	127	129	127	124	126	124	124	122	124	123	111	94	94	94	94	0	0
New Hampshire.....	97	101	102	101	98	103	111	116	129	123	126	111	109	111	113	112	112	111	110	102	92	91	90	91	90	-1	-1
Vermont.....	101	101	98	104	115	127	133	136	150	150	145	134	130	125	126	125	123	123	123	121	112	101	100	101	101	+1	-1
Massachusetts.....	98	100	102	98	100	110	114	119	140	134	132	131	132	124	134	131	131	131	130	120	111	112	112	111	111	-1	0
Rhode Island.....	100	101	100	102	106	112	118	123	130	130	127	124	126	128	130	133	134	134	134	134	126	118	118	118	118	0	0
Connecticut.....	98	100	102	100	102	110	116	121	137	134	140	137	140	137	137	137	138	139	139	140	140	133	124	123	123	0	0
Middle Atlantic:																											
New York.....	98	100	102	100	103	109	115	118	133	123	116	115	112	111	109	108	106	105	103	96	92	82	82	82	82	0	0
New Jersey.....	98	100	102	100	102	111	115	119	130	120	121	115	120	124	129	128	127	127	125	123	118	110	111	111	111	+1	0
Pennsylvania.....	98	100	102	100	105	114	119	124	140	131	120	118	116	114	114	112	111	110	107	101	96	78	78	79	79	+1	+1
East North Central:																											
Ohio.....	98	100	102	107	113	119	131	135	159	134	124	122	118	110	105	99	96	94	90	82	70	59	63	66	66	+3	+5
Indiana.....	97	100	103	102	110	116	128	135	161	148	120	116	108	102	95	87	84	83	80	72	60	53	56	61	61	+5	+8
Illinois.....	97	100	103	102	105	111	119	130	160	153	126	123	116	115	109	99	96	95	91	80	66	54	69	63	63	+2	+3
Michigan.....	98	99	103	105	111	120	134	137	154	152	145	145	138	133	129	127	125	124	121	115	97	80	82	83	83	+2	+2
Wisconsin.....	97	100	103	104	117	124	133	143	171	168	154	147	139	130	125	122	120	119	117	104	91	80	80	82	82	+2	+2
West North Central:																											
Minnesota.....	95	100	105	107	122	138	155	167	213	212	187	177	170	159	155	145	140	138	133	116	98	79	83	83	83	0	0
Iowa.....	96	99	104	112	128	134	145	160	213	197	162	156	143	136	130	121	117	116	113	98	80	58	63	67	67	+4	+6
Missouri.....	97	100	103	102	108	115	125	137	167	166	133	127	117	112	104	99	96	95	92	79	67	55	57	58	57	+2	+2
North Dakota.....	97	100	103	103	112	118	124	130	145	141	136	128	114	109	105	100	99	98	95	85	73	66	68	67	67	-1	-1
South Dakota.....	96	101	103	101	108	116	126	145	181	173	146	126	117	115	107	97	96	95	93	83	67	55	55	54	54	-2	-2
Nebraska.....	98	100	102	101	104	110	127	145	179	166	144	139	128	123	123	119	117	116	113	106	90	69	72	72	72	0	0
Kansas.....	101	99	99	103	109	115	122	132	151	149	130	127	118	115	113	113	113	113	113	103	89	70	72	73	73	+1	+1

South Atlantic:	Delaware.....	100	101	99	100	105	115	124	129	139	129	119	107	112	114	111	111	111	107	95	80	80	82	+2	+1		
	Maryland.....	97	100	103	104	109	118	129	136	166	146	141	136	133	131	130	126	124	123	120	106	90	90	91	+1	+1	
	Virginia.....	97	100	103	104	109	118	129	136	166	146	141	136	133	131	130	126	124	123	120	106	90	90	91	+1	+1	
	West Virginia.....	97	100	103	104	109	118	129	136	166	146	141	136	133	131	130	126	124	123	120	106	90	90	91	+1	+1	
	North Carolina.....	97	99	104	102	114	130	152	176	223	196	165	125	127	125	122	110	109	105	98	81	78	78	0	0	0	
	South Carolina.....	101	98	101	94	98	107	122	162	230	186	166	125	128	136	138	128	113	110	110	104	90	73	398	10	+9	
	Georgia.....	98	101	94	105	106	116	131	172	217	172	186	123	123	123	116	112	102	101	109	90	70	57	363	7	+10	
	Florida.....	96	99	103	97	103	109	126	143	178	176	137	135	163	172	223	183	176	174	172	166	141	121	126	0	0	
	East South Central:																										
	Kentucky.....	97	100	103	103	111	127	146	170	200	172	151	147	141	140	139	134	130	129	127	115	97	80	81	87	+6	+7
Tennessee.....	96	100	104	100	110	121	143	168	200	169	134	138	148	137	134	130	127	125	123	114	96	79	84	91	+7	+8	
Alabama.....	98	103	98	98	103	128	143	177	147	135	143	144	154	154	154	143	143	143	129	102	88	99	110	+11	+9		
Mississippi.....	97	102	102	97	111	121	131	155	218	136	148	143	134	136	134	126	123	122	112	92	73	82	90	+8	+8		
West South Central:	Arkansas.....	98	101	95	109	129	149	169	222	186	174	170	160	160	153	150	147	145	141	118	104	80	86	103	+2	+7	
	Louisiana.....	99	102	99	95	106	112	143	157	198	163	144	137	141	134	135	132	132	132	121	103	89	96	103	+3	+7	
	Oklahoma.....	98	101	95	104	114	130	140	166	160	139	133	125	131	130	128	127	127	127	116	94	83	86	93	+3	+3	
	Texas.....	95	100	105	103	103	115	133	141	174	156	133	128	137	146	146	141	139	138	122	96	83	88	91	+3	+3	
	Mountain:																										
Montana.....	97	100	103	100	94	100	106	114	126	105	96	87	81	75	72	70	71	72	70	58	48	48	50	+2	+4		
Idaho.....	100	101	99	96	99	114	130	146	172	162	136	133	129	123	119	117	116	116	114	96	76	77	80	+3	0		
Wyoming.....	97	103	100	103	94	97	121	147	176	146	134	121	112	100	95	94	95	96	98	95	77	62	62	0	0		
Colorado.....	98	103	98	93	102	107	110	128	141	132	123	113	98	92	89	82	82	82	81	65	54	54	53	-1	0		
New Mexico.....	100	104	96	100	96	111	118	127	144	125	115	110	108	106	108	108	109	110	109	89	75	76	76	0	0		
Arizona.....	95	100	95	97	95	105	125	140	165	148	135	124	128	121	125	123	122	123	123	104	90	90	91	+1	0		
Utah.....	100	102	98	98	104	117	122	144	167	137	133	133	131	130	129	128	127	127	126	122	98	83	84	0	0		
Nevada.....	96	100	103	102	99	96	103	117	135	123	119	112	108	102	99	99	99	99	97	78	65	65	65	0	0		
Pacific:	Washington.....	98	100	103	100	102	112	118	122	140	132	124	117	115	113	111	110	110	108	91	74	73	76	+3	+4		
	Oregon.....	97	100	103	99	100	104	112	118	130	130	122	115	113	110	107	106	106	107	106	88	72	72	74	+3	+3	
	California.....	93	99	108	111	116	130	136	142	167	168	166	165	164	164	163	161	160	160	158	133	109	110	115	+5	+4	

<sup>1</sup> All farm land with improvements as of Mar. 1. Owing to rounding of figures, 1912-14 will not always equal exactly 100 percent.

<sup>2</sup> Minus (-) denotes decrease.

<sup>3</sup> Revised.

A new map, in color, showing value of farm land and buildings per acre, in 7 value classifications, by groups of minor civil divisions has just been prepared for issue by the U. S. Department of Agriculture, Bureau of Agricultural Economics, in cooperation with the National Resources Board and the Farm Credit Administration. This map is about 24 by 38 inches in size. It is based on the 1930 Census with an inset map indicating changes in value since 1930 for each State. Copies of the map may be obtained by persons cooperating with the Bureau of Agricultural Economics through the Division of Economic Information, Bureau of Agricultural Economics, Washington, D. C., as long as available for free distribution. Also for sale by Superintendent of Documents, Government Printing Office, Washington, D. C., at 25¢ a copy.

Reporters to the Bureau continue to comment upon the activity of the Farm Credit Administration in its efforts to improve the credit facilities available to farmers and upon the higher prices and incomes that have made it possible for farmers to make progress

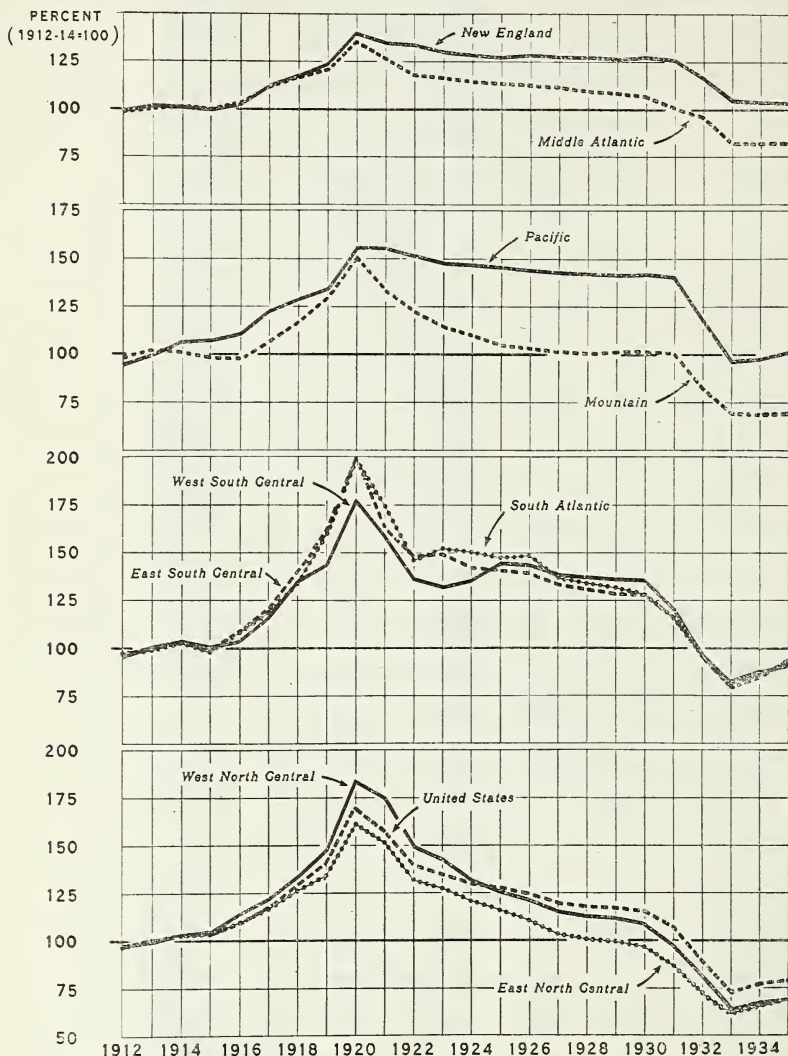


FIGURE 1.—FARM REAL ESTATE: INDEX NUMBERS OF ESTIMATED VALUE PER ACRE AS OF MARCH 1, BY GEOGRAPHIC DIVISIONS 1912-35.

Larger farm incomes, resulting from higher prices for agricultural products and from benefit payments, aided by the continuation of extensive refinancing of agricultural indebtedness, encouraged correspondents of the United States Department of Agriculture to report higher values in most areas for the second consecutive year. For the United States as a whole, the index rose from 76 to 79.

toward meeting their obligations and to exert an effective demand for goods in the markets they are accustomed to frequent.

Dealer correspondents indicate that inquiries concerning lands for sale have increased further, creditor agencies holding farms have



in some cases raised their asking prices, and the Federal banks report (7, *Rept. 2*) increased sales, higher average prices, a larger proportion of the selling price received in cash at the time of sale, and the recovery of a larger part of the carrying value from the farms sold. The tone of the farm real estate market has improved materially during the year.

Inquiries for farms have been more numerous than during the previous year in every geographic division except New England, particularly in the North Central and in the Pacific States, and, to a lesser extent, in the Southern States.

The greatest increases in value relative to a year ago have occurred in the East South Central and South Atlantic geographic divisions. Alabama reported an increase of 11 percent; both South Carolina and Georgia reported increases of 10 percent; Mississippi and North Carolina reported 9 percent, and Tennessee reported an increase of 8 percent.

The largest relative increase among the East North Central States was 8 percent in Indiana. Ohio reported a 5-percent increase, Illinois 3, Wisconsin 2, and Michigan 1 percent.

Among the West North Central States, the largest relative increase was 6 percent, reported from Iowa. Several of the States of this group, as well as those of the Mountain division, suffered seriously from the drought, with consequent reactions on farm real estate values. Average values in North Dakota and South Dakota suffered slight drops from those of a year ago; in Nebraska and Minnesota they remained practically the same; and in Kansas and Missouri they showed increases of 1 and 2 percent, respectively.

Values in the West South Central States increased moderately for the most part, Louisiana showing the greatest increase in this region with a 7-percent rise. Oklahoma and Texas each showed a 3-percent rise, and Arkansas only 2 percent. The States on the Pacific coast and the two northern States of the Mountain group, Montana and Idaho, showed increases of 3 or 4 percent each, but the remaining States in the Mountain group showed little or no change.

Farm real estate values in the North Atlantic States appeared for the most part to have been practically stationary during the year. The index for the New England States showed no increase and that for the Middle Atlantic States a rise of only 1 percent.

#### FURTHER INCREASES IN FARM INCOME STIMULATE VALUES

Gross income from farm production in 1934 for the United States (5) was estimated at \$7,300,000,000, almost a billion dollars more than in 1933, approximately three-fifths of the average for the period 1924-29, and about half a billion dollars above the 1910-14 level. The 1934 estimate is the highest since 1930, being approximately 8.0 percent above the 1910-14 average, in contrast with 1933 and the 25-year low of 1932, which were 5.2 and 21.1 percent, respectively, below the 5-year pre-war average (table 2 and fig. 2). As was the case in 1933, the increase in gross income in 1934 was due largely to benefit payments and to price increases. The rental and benefit payments in 1934 amounted to \$594,000,000, accounting for 8.1 percent of the gross income. Excluding rental and benefit payments in both years, gross income in 1934 was 9.4 percent larger than in 1933.



The volume of net agricultural production decreased 6.2 percent, while the Bureau index of prices received by farmers increased 28.6 percent.

TABLE 2.—Gross income from farm production of the calendar years, 1909-34

Year <sup>1</sup>	Gross income	Year <sup>1</sup>	Gross income	Year <sup>1</sup>	Gross income	Year <sup>1</sup>	Gross income
	<i>Million dollars</i>		<i>Million dollars</i>		<i>Million dollars</i>		<i>Million dollars</i>
1909.....	6,238	1916.....	8,914	1922.....	9,944	1928.....	11,741
1910.....	6,643	1917.....	12,832	1923.....	11,041	1929.....	11,911
1911.....	6,372	1918.....	13,101	1924.....	11,337	1930.....	9,454
1912.....	6,784	1919.....	13,935	1925.....	11,968	1931.....	6,968
1913.....	6,975	1920.....	13,566	1926.....	11,480	1932.....	5,337
1914.....	7,028	1921.....	8,927	1927.....	11,616	1933.....	6,406
1915.....	7,395					1934.....	<sup>2</sup> 7,300

<sup>1</sup> Crop year for crops; calendar year for livestock and livestock products. Estimate includes income from rental and benefit payments of \$278,000,000 for 1933 and \$594,000,000 for 1934.

<sup>2</sup> Preliminary.

Income from farm production in the United States (5).

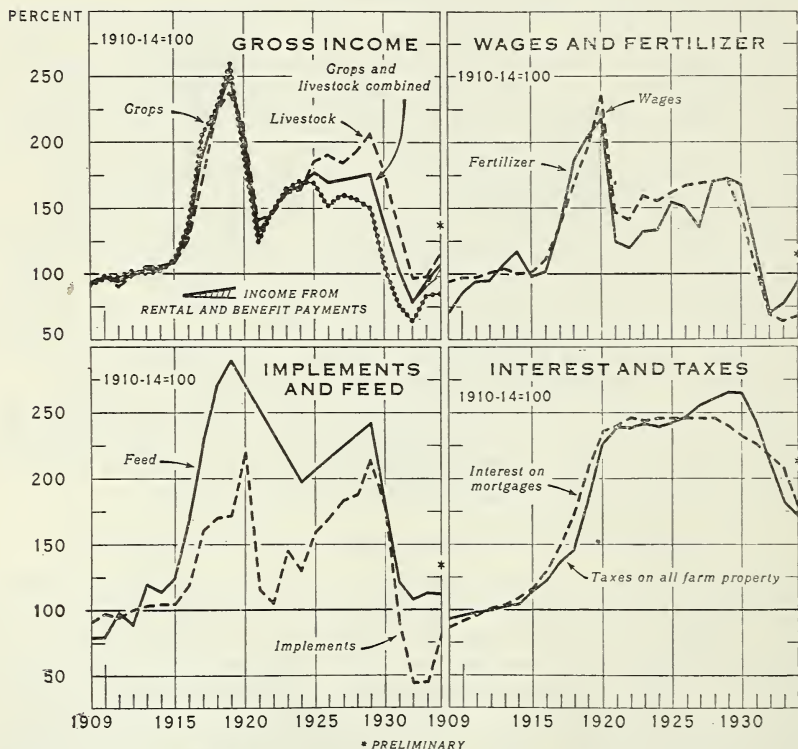


FIGURE 2.—GROSS FARM INCOME AND SELECTED EXPENDITURES, 1909-34.

Higher prices for important agricultural products brought a marked increase in income to agriculture over that of a year ago. Including rental and benefit payments, gross income in 1934 was 14 percent greater than in 1933, but was only three-fifths of the 1924-29 average. Total operating expenditure increased less than did income, and taxes and interest payable continued to decline.

Gross income from crops was greater than a year ago, but the index of the volume of crop production was reduced to 68 (1924-29=100) largely because of the effect of the drought, and the income from crops was but 1.5 percent greater than that of the previous year. With the exception of those from grains, vegetables, and sugar crops, incomes from all the individual classes of crops shown in table 3 were in excess of those in 1933. The income from each class with the exception of sugar crops was in excess of 1932, while incomes from grains, fruits and nuts, cotton and cottonseed, tobacco, and other crops were in excess of those of 1931. Tobacco was the only crop to exceed its 1930 income level.

TABLE 3.—Gross income from farm production by groups of commodities, 1929-34

Source of income	1929	1930	1931	1932	1933	1934
	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>
Crops:						
Grains.....	1,297	806	488	452	601	536
Fruits and nuts.....	707	567	457	324	412	464
Vegetables.....	1,130	934	726	611	754	701
Sugar crops.....	83	94	69	69	79	61
Cotton and cottonseed.....	1,389	751	528	464	688	723
Tobacco.....	286	212	130	108	179	241
Other crops.....	542	454	348	267	319	351
Total.....	5,434	3,818	2,746	2,295	3,032	3,077
Livestock and livestock products:						
Cattle and calves.....	1,111	951	681	499	476	717
Hogs.....	1,531	1,361	930	548	617	613
Sheep and wool.....	262	204	158	106	152	184
Poultry and eggs.....	1,241	1,059	816	609	561	664
Dairy products.....	2,323	2,031	1,614	1,260	1,263	1,421
Other.....	39	30	23	20	27	30
Total.....	6,507	5,636	4,222	3,042	3,096	3,629
Total crops and livestock.....	11,941	9,454	6,968	5,337	6,128	6,706
Rental and benefit payments.....					278	594
Grand total.....					6,406	7,300

Income from farm production in the United States (5).

In contrast with income from crops, the income from livestock and livestock products was 17.2 percent above the 1933 level and 19.3 percent above that of 1932. Part of this increase resulted from the unusually heavy slaughter of meat animals because of the drought. With the exception of the income from hogs, which remained substantially the same, the income from each group was in excess of that in 1933. Income from all classes exceeded that of 1932, and income from cattle and calves and that from sheep and wool exceeded that of 1931. The greatest advance occurred in the case of cattle and calves, the income from which increased 50.6 percent over that in 1933.

The close relationship that has existed in previous years between the changes in gross income from the various commodity groups and changes in the respective prices was less apparent in 1934 because of greater variations in physical quantities of the different groups produced. The general trends of prices for various commodities are given in tables 4 and 5. The former presents the Bureau index of prices received by farmers for seven groups of commodities and for all groups, and the latter shows the prices of the principal individual

commodities, in each case relative to the pre-war period, August 1909-July 1914.

The limited increases in income from crops in 1934 were due largely to decreased marketings. While the income from grains was 10.8 percent below that of 1933, grain prices were 50.0 percent higher—but the index of the volume of production was 32.8 percent lower. The income from cotton and cottonseed was 5.1 percent in excess of that of 1933, cotton and cottonseed prices were 54.7 percent higher—but the index of volume of production was 25.6 percent lower.

TABLE 4.—*General trend of prices and purchasing power for specified years and by months, August 1933 to July 1935*<sup>1</sup>

Year and month	Index numbers of farm prices (August 1909-July 1914=100)							Ratio of prices received to prices paid <sup>1</sup>	Wholesale prices, all commodities (U. S. Bureau of Labor Statistics) 1910-14=100
	Grains	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	Cotton and cottonseed		
1910.....	104	101	-----	103	99	104	113	102	103
1915.....	120	82	-----	104	103	101	77	98	102
1920.....	232	191	-----	174	198	223	248	211	225
1925.....	157	172	153	140	153	163	177	156	151
1926.....	131	138	143	147	152	159	122	145	146
1927.....	128	144	121	140	155	144	128	139	139
1928.....	130	176	159	151	158	153	152	149	141
1929.....	120	141	149	156	157	162	144	146	139
1930.....	100	162	140	133	137	129	102	126	126
1931.....	63	98	117	92	108	100	63	87	107
1932.....	44	82	102	63	83	82	47	65	95
1933.....	62	74	105	60	82	75	64	70	96
1934.....	93	100	104	68	96	89	99	90	109
1933:									
August.....	81	74	95	64	85	69	71	79	102
September....	78	78	147	62	89	78	69	80	103
October.....	69	77	123	64	91	93	71	78	104
November....	75	70	127	59	92	102	76	80	104
December....	73	74	114	52	88	94	77	78	103
1934:									
January.....	76	86	102	55	84	82	82	77	105
February....	79	87	101	65	92	78	93	83	107
March.....	79	97	79	66	95	74	94	84	107
April.....	77	96	98	64	91	72	94	82	108
May.....	78	110	89	64	91	72	90	82	108
June.....	89	137	80	64	93	72	94	85	109
July.....	91	113	102	66	93	76	99	87	112
August.....	106	101	108	68	97	86	107	96	109
September....	112	93	133	82	99	104	110	103	113
October.....	109	98	110	74	100	108	107	102	112
November....	109	94	107	72	105	125	107	101	112
December....	116	85	130	73	107	119	109	101	112
1935:									
January.....	115	87	117	96	112	114	108	107	115
February....	114	90	188	105	121	119	108	111	116
March.....	111	90	162	117	114	97	102	108	116
April.....	115	105	156	117	117	105	103	111	117
May.....	112	98	127	118	107	110	105	108	117
June.....	102	100	96	119	99	108	103	104	116
July.....	96	98	93	116	97	107	102	102	116

<sup>1</sup> The value of a unit of the farmers' product at farm prices in exchange for commodities bought by farmers for use in both production and living, at retail prices, as compared with pre-war values.

<sup>2</sup> Preliminary.



TABLE 5.—General trend of prices of individual products for selected years and by months, June 1933 to July 1935

Year and month	Meat animals				Dairy products		Chickens and eggs		Grains			Cotton and cottonseed		Fruits		Miscellaneous				
	Cattle	Calves	Hogs	Lambs	Milk, wholesale	Butterfat	Chickens	Eggs	Wheat	Corn	Oats	Cotton	Cottonseed	Apples	Oranges	Potatoes	Sweetpotatoes	Hay	Tobacco	Wool
1910.....	92	95	113	109	97	102	103	105	110	96	102	113	114	102	102	77	88	95	90	118
1915.....	115	113	91	118	104	100	103	101	127	112	113	73	112	77	76	97	88	82	128	
1920.....	163	175	180	203	192	213	226	222	249	220	196	250	235	204	235	353	196	177	201	216
1925.....	119	131	152	209	143	161	178	157	171	156	112	179	159	154	264	163	195	106	174	224
1926.....	124	143	163	197	140	159	192	147	153	109	97	122	124	127	190	266	178	110	179	188
1927.....	138	151	134	194	141	169	178	131	136	123	113	128	130	129	210	190	130	101	173	176
1928.....	175	174	121	206	143	175	186	141	128	139	123	150	171	152	285	119	128	90	188	205
1929.....	176	180	131	203	143	171	196	149	116	136	111	143	159	145	139	135	135	97	190	178
1930.....	144	147	122	140	128	133	162	117	92	121	95	100	119	139	271	178	132	95	142	120
1931.....	102	104	82	98	99	97	136	87	55	78	64	61	77	98	121	104	106	82	101	81
1932.....	78	74	48	75	74	69	102	74	44	44	46	47	44	73	100	62	65	63	100	55
1933.....	68	68	49	81	73	71	83	71	66	57	62	65	56	79	76	95	68	57	114	102
1934.....	74	71	59	98	85	87	98	86	90	95	104	97	119	101	124	98	90	90	171	126
1935.....																				
June.....	78	67	55	88	68	75	88	47	66	63	58	70	59	92	73	71	65	54	64	121
July.....	76	68	55	89	74	87	91	61	98	86	98	85	75	90	84	140	77	59	244	127
Aug.....	73	70	52	90	78	70	86	62	85	76	81	71	71	78	84	188	106	63	124	128
Sept.....	69	73	52	87	82	75	83	76	80	72	81	71	55	76	101	145	87	63	124	131
Oct.....	67	72	58	85	84	76	82	97	72	60	70	73	57	73	101	107	72	64	147	134
Nov.....	64	69	51	84	84	78	77	112	80	63	79	77	62	76	68	99	64	65	190	135
Dec.....	60	62	40	84	83	68	75	100	76	65	79	77	70	83	69	100	69	65	156	137
1934.....																				
Jan.....	64	66	42	94	80	61	82	73	68	81	83	74	93	90	111	77	66	105	140	
Feb.....	70	74	54	112	83	82	89	73	81	71	85	94	86	101	80	126	83	68	103	144
Mar.....	73	73	54	116	84	89	94	67	80	73	85	94	95	108	91	132	89	70	83	153
Apr.....	75	71	48	116	82	80	97	63	78	73	82	94	99	113	80	120	92	72	79	149
May.....	79	72	44	118	81	82	98	62	79	76	82	89	101	118	121	106	94	75	71	133
June.....	77	67	49	109	82	84	98	61	89	87	97	94	99	127	206	92	99	82	119	124
July.....	75	66	55	96	84	84	103	66	89	92	102	99	101	105	154	96	99	86	231	122
Aug.....	71	67	64	86	85	92	100	80	101	113	115	106	116	85	157	98	111	105	232	116
Sept.....	81	77	64	83	88	91	111	102	104	121	126	106	143	86	140	90	100	110	260	111
Oct.....	76	77	72	82	89	92	104	110	100	119	127	101	162	88	159	70	85	113	324	109
Nov.....	73	74	70	82	92	103	103	133	100	118	128	99	168	93	133	66	74	114	274	109
Dec.....	74	72	71	85	94	107	103	126	102	133	135	100	181	98	80	65	77	117	176	105
1935.....																				
Jan.....	97	87	95	106	98	116	108	116	101	133	137	99	183	103	79	66	81	118	151	107
Feb.....	114	96	98	113	102	137	118	119	99	132	137	98	185	108	87	65	85	118	127	103
Mar.....	126	103	112	114	99	119	125	87	97	129	136	93	182	109	89	63	86	116	101	99
Apr.....	129	106	109	112	99	129	136	93	102	133	134	94	179	114	128	70	89	115	97	92
May.....	131	103	110	112	96	105	138	100	99	132	125	97	179	119	96	64	94	113	98	91
June.....	125	105	116	111	87	90	137	98	87	130	105	95	169	122	92	59	92	102	138	112
July.....	119	100	116	107	88	85	123	101	86	128	81	96	157	100	104	75	94	75	230	116

In contrast to the situation in the case of crops, price increases for livestock and livestock products were less substantial, but they were associated with a small increase in the volume of production. Prices for meat animals rose 13.3 percent, for dairy products 17.1 percent, and for chickens and eggs 18.7 percent. As compared with those of a year ago, the volume of meat-animal production increased 6.5 percent, that of dairy products decreased 3.6 percent, while that of poultry products decreased 3.8 percent.

The general upward tendency in prices that started late in 1932 and early 1933 has continued through 1934 and the first half of 1935. The index for all groups rose from a low of 55 in February and March 1933 to a high of 111 in February and April 1935, the highest level since October 1930. Grains and cotton and cottonseed made the most marked advances. From a low of 34 in February



1933, grain prices rose to 116 in December 1934, which was the highest level since January 1930 and has not since been surpassed. Cotton and cottonseed rose from a low of 37 in June 1932 to a current high of 110 in September 1934, the highest level since June 1930. Chickens and eggs and fruits reached higher levels in 1934 than at any time since 1930. Truck crops in February 1935 reached the highest level since January 1930. The index for meat animals reached 119 in June of 1935, the highest since October 1930, and the index for dairy products reached 121 in February of 1935, the highest since December 1930.

The increase in total operating expenditures over 1933 was more substantial than was the increase of 1933 over that of 1932. The Bureau estimate <sup>7</sup> of total operating expenditures of farmers in 1934 was \$1,774,000,000. This represents an increase of 14.8 percent over the \$1,545,000,000 of the previous year, which in turn was 6.4 percent more than the \$1,452,000,000 of 1932. Estimated operating expenditures in 1934 were 91.1 percent of those in 1931 (table 6).

TABLE 6.—*Gross income, annual expenditures, value of operators' and family labor, and income available for all capital and management, 1924-34*

Year	Gross income			Expenditures				Balance available for capital, unpaid labor, and management	Value of operators' and family labor at rates paid hired labor	Income available for capital and management
	From crops	From live-stock and live-stock products	Total <sup>1</sup>	Operating expenditures	Wages to hired labor	Taxes payable	Total			
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
1924.....	6, 170	5, 167	11, 337	2, 554	1, 181	541	4, 276	7, 061	4, 405	2, 656
1925.....	6, 148	5, 820	11, 968	2, 855	1, 230	547	4, 632	7, 336	4, 447	2, 889
1926.....	5, 468	6, 012	11, 480	2, 900	1, 277	557	4, 734	6, 746	4, 534	2, 212
1927.....	5, 817	5, 799	11, 616	2, 837	1, 292	577	4, 706	6, 910	4, 501	2, 409
1928.....	5, 675	6, 066	11, 741	3, 109	1, 301	588	4, 998	6, 743	4, 491	2, 252
1929.....	5, 434	6, 507	11, 941	3, 289	1, 313	601	5, 203	6, 738	4, 519	2, 219
1930.....	3, 818	5, 636	9, 454	2, 734	1, 112	600	4, 446	5, 008	4, 096	912
1931.....	2, 746	4, 222	6, 968	1, 947	807	550	3, 304	3, 664	3, 218	446
1932.....	2, 295	3, 042	5, 337	1, 452	522	476	2, 450	2, 887	2, 460	427
1933.....	3, 032	3, 096	6, 406	1, 545	484	410	2, 439	3, 967	2, 297	1, 670
1934.....	3, 077	3, 629	7, 300	1, 774	518	387	2, 679	4, 621	2, 586	2, 035

<sup>1</sup> Estimate includes income from rental and benefit payments of \$278,000,000 for 1933 and \$594,000,000 for 1934.

Total operating expenditures for the year, including both current and capital outlays, were 60.7 percent as great as the 1924-29 average, while gross income represented 62.5 percent of its average for the same period. This relationship is similar to that of a year ago, when total expenditures represented 52.8 percent and gross income 54.8 percent of their respective averages for the 1924-29 period. Both years are in contrast to the situation from 1930 to 1932, during which

<sup>7</sup> These "operating expenditures" include some capital outlay which should not be charged to a single year's operations in a strict accounting sense. In the following discussion "current expenditures" refer to outlays for commodities and services used in the same year as purchased. "Capital expenditures" refer to outlays for capital equipment which are to be used over a period of years and should not be charged to a single year's cost. Both are included in total "operating expenditures" in table 6 since, from the standpoint of expenditure of available resources, they may be included.

period expenditures were reduced less rapidly than income. Current expenditures during 1934 for items directly associated with production such as feed, seed, fertilizer, spray materials, and costs of operating tractors and automobiles were but 66.6 percent of their 1924-29 average, and items of capital expenditure for machinery, automobiles, and trucks, and repairs on farm buildings were but 49.4 percent (5). From 1930 to 1932 capital expenditures were curtailed considerably more than were current operating expenditures. The limit to which capital expenditures could be postponed apparently was reached in 1933, when there was an increase of 23.8 percent over 1932 in such outlays. In 1934 expenditures of this nature were 53.3 percent in excess of those in 1933. In contrast, the increases in current operating expenditures were limited. Expenditures for items directly associated with production in 1933 were but 2.6 percent above those in 1932, and in 1934 they were but 4.7 above those in 1933.

As with capital expenditures, outlays for hired labor, including cash wages plus the value of board and perquisites, were reduced substantially under the 1924-29 average. The amount paid for wages, including value of board and perquisites, dropped from an average of nearly \$1,266,000,000 for the 1924-29 period to \$522,000,000 in 1932 and \$484,000,000 in 1933, but increased slightly to \$518,000,000 in 1934 (table 6). Even though wages in 1934 increased 7.0 percent over those in 1933, the expenditure for this item was 59 percent under the 1924-29 average.

Less flexible than the expenditures outlined above are such items as taxes and interest and payments of principal on indebtedness. These lagged in 1931 and 1932; but substantial reductions in the tax burden on agricultural real estate have been accomplished during 1933 and 1934. The estimated total of taxes payable (as distinguished from taxes paid) dropped from \$600,000,000 in 1930 to \$387,000,000 in 1934, a decline of 35.5 percent.

Interest payable (as distinguished from interest paid) declined less than did taxes, dropping from \$654,000,000 in 1930 to \$472,000,000 in 1934, a reduction of 27.8 percent (5). There has been much delinquency on debt service, but it is not known how much of the delinquency applies to interest and how much to principal. The decline in interest charges follows from both a decline in interest rates as well as in outstanding mortgage indebtedness.

Relations between the changes in the various items of expenditures are more evident when expressed as percentages of gross income. During the period that gross incomes were dropping sharply, there was a lag in the decline of current operating expenditures. During the 1924-29 period, current operating expenditures (excluding capital outlays) were approximately 16 percent of gross income. They increased to over 20 percent in 1931 and to 22 percent in 1932. In 1933 and 1934 the substantial gains in gross income associated with limited increases in current operating expenditures reduced the ratios to 19 and 18, respectively, only slightly above the 1924-29 average (5).

Capital expenditures varied from 7 to 10 percent of gross income during the 6-year period, but declined sharply after 1929, amounting to only 5 percent of gross income in 1932 and 1933. In 1934, how-

ever, they increased to 7 percent of gross income, approaching the 1931 relationship (5).

Interest and taxes together averaged about 11 percent of gross income over the period 1924-29, which was about one-half higher than it had been during the 1909-16 period. From 1929 to 1932 the share of income absorbed by taxes and interest almost doubled, amounting to 20 percent of gross income in 1932.

The lower taxes and interest charges combined with larger incomes reduced the share of gross income claimed by these items to 15 percent in 1933 and to 12 percent in 1934. The ratio for 1934 is the lowest since 1929. Taxes payable amounted to about 5 percent, and interest payable to about 6.5 percent of gross income in 1934.

The share of gross income claimed by interest on mortgaged farms, however, would be considerably greater than is indicated above since less than one-half of the farms are mortgaged.

The increases in operating expenditures in 1933 were due largely to increased quantities purchased, since the prices paid for commodities used in production increased less than 1 percent while expenditures increased over 6 percent. But in 1934 prices paid by farmers for commodities used in production increased almost 16 percent, while expenditures increased only 15 percent. Of the current operating expenditures, outlays for fertilizer increased 23 percent, while fertilizer prices increased 9 percent. Expenditures for feed decreased 1 percent, but as feed prices increased 39 percent, a substantial reduction in the physical quantity of feed purchased is indicated (table 7).

A sharp increase in the quantity of machinery purchased is apparent since machinery prices increased 5 percent, while expenditures for machinery, tractors, automobiles, and trucks increased 72 percent. On the other hand, repairs on farm buildings increased 14 percent, whereas building-material prices increased 13 percent.

The aggregate physical quantities of agricultural marketings in 1934 were approximately 9 percent under both the 1924-29 average, as well as the index for 1932, and 6 percent under 1933. In 1932, and to a less extent in 1933, the agricultural plant and personnel continued to provide nearly as much food and raw materials as during 1924-29, but in exchange a smaller quantity of the services produced by industry was received. Although the Federal Reserve Board index of industrial production in 1934 was still 26 percent under the 1924-29 average, it was 23 percent above the 1932 average and 4 percent above that of 1933. Partly because of this reversal of movement in agricultural and industrial production, the latter part of 1933 was the first time since 1928 that there was a material improvement in the ratio between prices received by farmers and the prices they paid. The ratio continued to rise through 1934, reaching a high of 87 in February and April of 1935, the highest level since June 1930.



TABLE 7.—*Index numbers of prices paid by farmers, by years, 1910-34, and in stated months, 1933-35*

[1910-14=100 percent]

Year and month	Commodities used in production						Commodities bought for family maintenance <sup>2</sup>	All commodities bought for both production and family maintenance	Wages paid to hired labor	Commodities bought for use in production plus wages paid to hired labor	Index of farm real estate tax per acre <sup>3</sup>
	Feed	Machinery	Fertilizer	Building materials for other than house	Equipment and supplies	Seed <sup>1</sup>					
1910.....	93	102	99	100	101	-----	98	98	97	98	-----
1911.....	107	101	99	102	100	-----	103	100	101	101	-----
1912.....	91	102	100	103	100	103	98	101	100	101	-----
1913.....	107	98	102	101	100	97	102	100	101	104	100
1914.....	102	96	100	93	99	99	99	102	100	101	99
1915.....	100	100	112	102	106	120	104	107	105	102	103
1916.....	130	107	120	117	129	142	124	124	124	112	121
1917.....	184	126	137	137	156	149	151	147	149	140	149
1918.....	193	155	170	161	181	190	174	177	176	176	174
1919.....	211	161	182	189	180	280	192	210	202	206	195
1920.....	137	167	186	205	189	152	174	222	201	239	189
1921.....	97	156	156	156	152	134	141	161	152	130	143
1922.....	123	142	129	159	140	130	139	156	149	146	141
1923.....	134	146	126	161	136	142	141	160	152	166	147
1924.....	142	152	120	161	133	151	143	159	152	166	148
1925.....	141	153	129	164	140	172	147	164	157	168	152
1926.....	137	154	126	162	144	214	146	162	155	171	152
1927.....	138	154	121	160	141	197	145	159	153	170	151
1928.....	148	154	131	158	138	179	148	160	155	169	153
1929.....	145	153	130	159	136	185	147	158	153	170	153
1930.....	132	152	126	155	131	174	140	148	145	152	143
1931.....	93	150	115	139	116	152	122	126	124	116	120
1932.....	69	141	99	126	107	102	107	108	107	86	102
1933.....	79	137	95	129	103	95	108	109	109	80	101
1934.....	110	144	104	146	109	140	125	122	123	90	117
1933:											
March.....	62	135	91	119	105	85	101	99	100	73	94
June.....	77	135	91	122	97	85	104	102	103	78	98
September.....	90	139	99	136	106	111	114	117	116	86	107
December.....	86	140	102	140	108	111	114	117	116	81	106
1934:											
March.....	91	142	104	148	108	119	119	121	120	88	112
June.....	97	144	104	149	110	119	121	122	121	90	114
September.....	122	146	105	145	109	162	129	123	126	93	120
December.....	132	146	105	144	110	162	131	122	126	86	121
1935:											
March.....	128	148	106	143	109	190	131	124	127	94	122
June.....	122	149	106	145	108	190	130	124	127	99	123

<sup>1</sup> 1912-14=100.<sup>2</sup> Includes food, clothing, household operating expenses, furniture and furnishings, and building materials for house.<sup>3</sup> 1913=100.<sup>4</sup> Figures included for New Jersey are preliminary.<sup>5</sup> Preliminary.

Compiled from prices reported to the Department of Agriculture by retail dealers throughout the United States. The index numbers include only commodities bought by farmers, the commodities being weighted according to purchases reported by actual farmers in farm-management and rural-life studies from 1920 to 1925. Figures for other months used in table are straight interpolations between the above quarterly reporting dates.

The relationship between several significant series of prices and farm real estate values is summarized in figures 3 and 4.

Another indication of improved farm conditions is evident from table 6, in which are shown estimates of income from production and benefit payments available for capital and management after operating expenditures, wages to hired labor, taxes, and an allow-



ance for the labor of the operator and his family have been deducted from gross income.

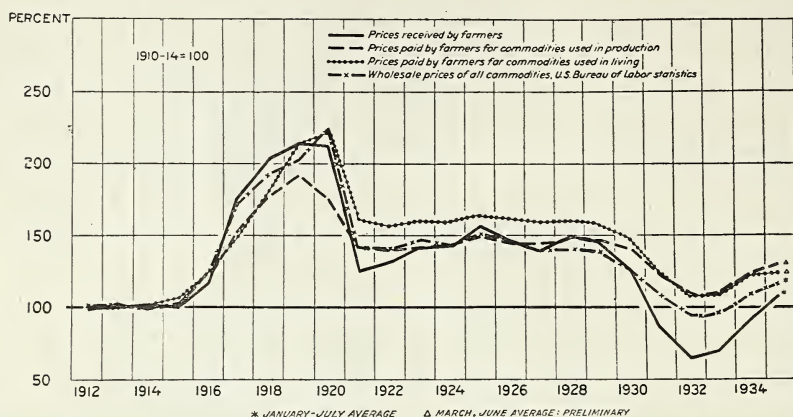


FIGURE 3.—PRICES RECEIVED AND PAID BY FARMERS, AND WHOLESALE PRICES OF ALL COMMODITIES, 1912-35.

Prices of most agricultural products continued to improve materially over the low points of the depression. As was the case a year ago, grain and cotton prices rose more rapidly than did livestock prices. Prices paid by farmers for commodities used in production and in living rose, but at a lower rate than did prices received.

The income indicated as available for capital and management was almost five times that in either 1932 or 1931, more than twice that in 1930, and 92 percent of that of 1929. The residual for capital and management was 22 percent in excess of that in 1933.

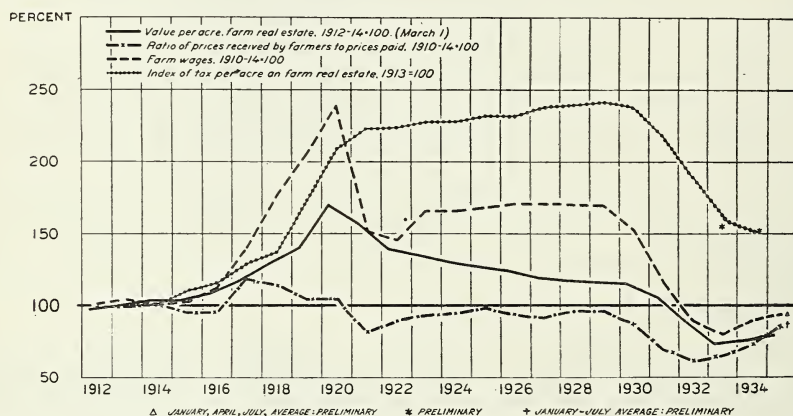


FIGURE 4.—RATIO OF PRICES RECEIVED TO PRICES PAID, FARM WAGES, TAXES PER ACRE ON FARM REAL ESTATE, AND VALUE PER ACRE OF FARM REAL ESTATE.

The average tax per acre levied on farm real estate declined further in 1934, but wages paid to hired labor as well as the prices of most commodities bought by farmers turned upward. The more rapid increase in prices received in 1934 than in prices paid resulted in a further increase in the ratio of prices received to prices paid.

A further indication of an improvement in farm conditions is indicated in the reports of 7,626 owner operators for their own farms. These farms are representative in the sense that there are hundreds of farms similar to them in many respects. They are distributed

over all parts of the country, and most kinds of farming are included. The average size is somewhat above that shown by the census because few of the reports relate to farms of less than 50 acres. Values also probably run somewhat above the average for all farms. Although the returns may not be considered as average in the sense of applying to all farms, it is believed that they do indicate the direction and approximate extent of significant trends.

The net results presented in table 8 and figure 5 consist of the average gross cash receipts, minus average current cash expenses, plus the change in inventory value of personal property. The average net results increased in all geographic divisions, except the West

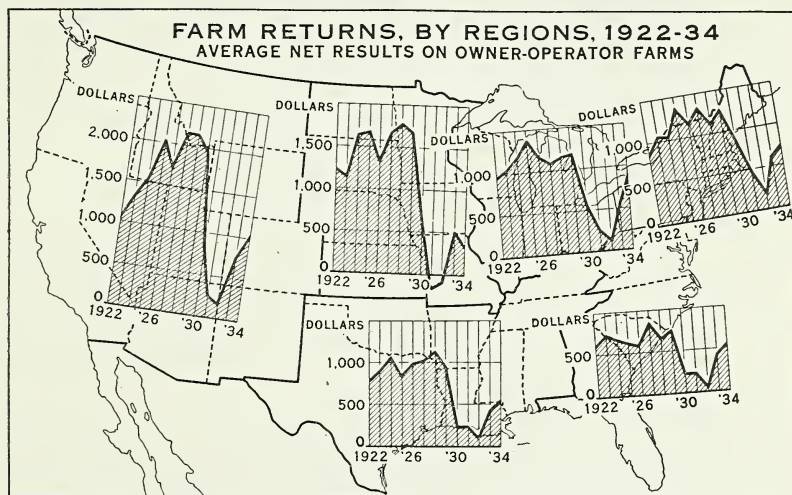


FIGURE 5.—As reported by Department correspondents, the average operating net results for owner-operated farms in the United States in 1934 was \$624, about one-half the net results in 1929, somewhat more than those in 1930 and 1933, and materially greater than those in 1931 and 1932. Except in the West North Central States, where net returns declined because of the drought, in general net returns increased throughout the United States over those in 1933.

North Central, the United States average increasing to the highest level since 1929. In addition to the net results indicated, the families during 1934 used food produced on the farm to the extent of \$153 and had some fuel and the use of the farm house.

TABLE 8.—*Farm returns: Average net result of owner operators for their own farms for the calendar years 1922-34*<sup>1</sup>

Geographic division	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
North Atlantic.....	\$858	\$1,070	\$1,022	\$1,352	\$1,166	\$1,333	\$1,105	\$1,254	\$882	\$445	\$180	\$619	\$733
East North Central.....	928	1,030	1,155	1,370	1,169	1,088	1,170	1,178	604	202	119	542	873
West North Central.....	1,235	1,110	1,654	1,680	1,325	1,642	1,798	1,684	595	-178	-98	502	339
South Atlantic.....	623	740	656	616	569	818	639	764	214	215	41	435	554
South Central.....	735	890	1,059	824	973	980	1,121	987	217	216	88	432	539
Western.....	986	1,310	1,506	2,047	1,694	2,179	2,171	1,994	868	242	178	738	1,023
United States.....	917	1,020	1,205	1,297	1,133	1,290	1,334	1,298	538	154	66	516	624
Number of reports, United States.....	6,094	16,183	15,103	15,330	13,475	13,859	11,851	11,805	6,228	7,437	6,383	6,855	7,626

<sup>1</sup> Average gross cash receipts from sales, minus average current cash expenses, plus change in inventory of personal property. The following items are not included: Interest paid, expenditures for farm improvements, estimated value of food produced and used on farms, estimated value of family labor, including owner, and estimated change in value of real estate during year. Full details have been published for each year in Crops and Markets, the latest figures in July 1935.

## REGIONAL CHANGES IN INCOME REFLECTED IN VALUE CHANGES

Changes in value of farm real estate during the last decade have shown a close relationship to changes in income. This is true not only for the principal agricultural regions, but also for the important individual agricultural States.

Space limitations do not permit illustration of the relationship by individual States, but figure 6 presents diagrams for five regions and for the United States. In preparing this figure the various areas have been represented by only those States the major part of which in each case lies within a given region. Thus the Corn Belt is herein represented by the States of Indiana, Illinois, Iowa, and Nebraska, and the wheat region by North Dakota, Kansas, and Montana. Minnesota, Wisconsin, Michigan, New York, and Pennsylvania have been used as representative of the hay and dairy region; and Wyoming, New Mexico, Utah, and Nevada, of the grazing region. The States included as the Cotton Belt are South Carolina, Georgia, Alabama, Mississippi, Oklahoma, Texas, Louisiana, and Arkansas. This selection of States gives areas that are considerably more uniform than the customary geographic divisions.

The Bureau's data on farm real estate values are collected as of March 1. For this reason values as of a given year, for example, 1935, have been plotted against gross income for the preceding year, in this case 1934. The income data have been reduced to index form, the average of the years 1924-28 being considered as 100; in the case of the real estate value data, owing to the lag mentioned above, the average for 1925-29 has been taken as 100.

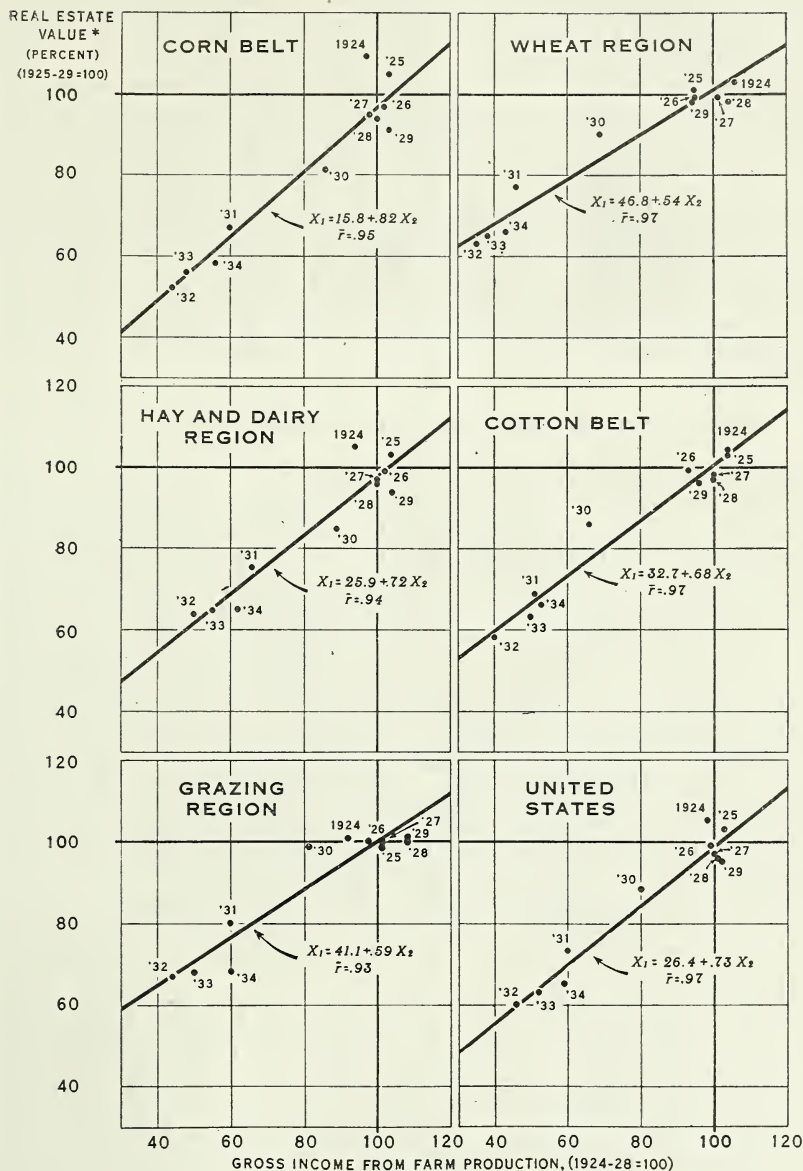
The regression lines indicate the average relationship during the period between income and values in the several regions, and the position of the point for a given year, relative to the line, indicates the extent to which the relation for the given year departed from the average.

It will be noted that in each region the relation between the index of gross income from farm production and the value of farm real estate is close.

There are, however, certain differences between the regions. For example, in the Corn Belt and in the hay and dairy region, whereas there was no significant change in the index of income from 1924-29, the index of values declined appreciably. Thus the dots representing 1924 values are appreciably higher than those representing 1929 values, and those for the intervening years are distributed between the two limits. The situation is much more noticeable in the Corn Belt and the hay and dairy region than in either of the other regions, and apparently indicates that farm real estate values were still in the process of becoming adjusted to the new level of incomes after the 1920-21 break.

But, when incomes declined in 1930, values in these same areas dropped more nearly in proportion to incomes than in the other areas, probably because the long decline had undermined confidence in the new level of values and hence had not become completely stabilized after the previous decline; but as income continued downward, values in all areas declined markedly, reaching low points in 1932. With increasing incomes in 1933 and 1934, values again turned upward, but the rise was somewhat less than might have been expected on the





\*LAGGED ONE YEAR

FIGURE 6.—VALUE PER ACRE OF FARM REAL ESTATE AND INCOME FROM FARM PRODUCTION, BY REGIONS, 1924-35.

Changes in value per acre of farm real estate have reflected closely the changes in gross income from farm production in the several regions, particularly since 1930. With the declines in income in 1930, values in the Corn Belt and the hay and dairy regions dropped somewhat more rapidly than in the other regions shown; but with continued weakness in prices of farm products, values in other regions weakened rapidly. Increasing incomes since 1932 have strengthened values in most States.



basis of the average relationship between income and real estate values over the whole period. Thus the tendency for real estate values to lag somewhat behind changes in income, especially at turning points, is again illustrated.

It should be recognized, of course, that there are factors other than income, either gross or net, that affect values. The availability of credit, rates of interest, the supply of farms for sale in relation to the demand for farms, and over a longer time, changes in the technique of production, are all more or less directly related to changes in values. But in recent years income changes have been so violent that their effect has rather overshadowed other factors.

Then, too, changes in income tend to be reflected to some extent, sometimes with a lag, in certain of these other factors. In spite of the rather close relation, therefore, between income and value, as indicated in figure 6, the importance of other factors should not be overlooked.

#### EMERGENCY REFINANCING CONTINUES, BUT AT A DECLINING RATE

Reinforcing the effects on farm realty values of higher incomes has been the additional important factor of the continuing activity of the Farm Credit Administration in facilitating the adjustment of distressed farm-mortgage debt and in reducing interest costs. The refinancing and interest-reducing activities initiated by the Farm Credit Administration upon its organization early in 1933 have been continued; but during the calendar year 1934 the rate of receiving applications and closing loans declined very markedly, and it appears that the peak of emergency refinancing has been passed.

The extent of the refinancing accomplished since the Farm Credit Administration was established is indicated by the fact that in the period May 1, 1933, to December 31, 1934, a total of 575,840 loans, amounting to \$1,494,454,231, have been closed by the Federal land banks and the Land Bank Commissioner. The number and amount of loans closed each month increased rapidly after May 1933 and reached a peak in March and June 1934, when loans of over \$150,000,000 were closed each month (7, *Rept.* 2). Except in April, a level of over \$100,000,000 a month was maintained through August of 1934, but by the end of the year the volume was reduced by approximately one-third.

That the pressure for debt refinancing in agriculture has slackened and that the climax of the emergency in farm-mortgage refinancing has passed is indicated by the fact that the number of farmers applying for loans in June 1935 was less than one-fifth<sup>8</sup> of the number applying in the fall of 1933, when the peak was reached. After the latter date, applications fell off in number, although small increases occurred again in the early fall and winter of 1934. In December 1934 only 19,497 applications were received, the smallest number since early in the summer of 1933. The total number of applications not acted on, as of December 31, 1934, was 31,159, considerably less than the average number of loans closed per month during 1934.

<sup>8</sup> UNITED STATES FARM CREDIT ADMINISTRATION. FARM CREDIT NOTES, v. 1, no. 3. June 1935. [Mimeographed.]

Many applicants for land bank and Land Bank Commissioner loans had indebtedness in excess of the maximum loans permitted by law. In order for these applicants to be eligible even for maximum loans, scale-downs on the part of the creditors were frequently necessary. In about 16 percent of all land bank and Land Bank Commissioner loans from May 1, 1933, through December 31, 1934, scale-downs in principal were obtained. The scale-downs amounted to over one-fourth of the former indebtedness of the farmers who obtained such adjustments.

The refinancing of loans constitutes one phase of the Farm Credit Administration program. The reduced number of applications suggests that this phase—primarily an emergency aspect—has been accomplished to a large extent. A second phase of the program relates to the reduction of interest charges on farm mortgages.

Those already indebted to the land banks obtained the benefits of the emergency reduction in interest rates. For those obtaining new loans, the two major phases of the program, that of reducing interest rates and that of refinancing indebtedness, are jointly associated, since the farmers who had loans refinanced generally did so at reduced interest rates.

The reduction in interest charges has had the effect of reducing the proportion of gross income that has been claimed by fixed charges. It is estimated that the reduction in interest charges on interest-bearing debts refinanced by the land banks and Land Bank Commissioner from May 1, 1933, through December 31, 1934, would amount to more than \$20,000,000 per year, a saving of one-quarter of the interest formerly paid (7, *Rept.* 2).

In addition, the reduction in interest rates to 4½ percent for the 5 years beginning July 1, 1933, will amount to a saving of approximately \$9,900,000 a year to borrowers from Federal land banks with loans outstanding on May 12, 1933. The further reduction in interest rates to 3½ percent for the year beginning July 1, 1935, will bring additional savings to borrowers on Federal land bank loans, of approximately \$20,000,000 for the first year, and about one-half this amount for the remaining 2 years, during which the 4-percent emergency rate applies. Loans refinanced currently will involve savings due in part to the emergency rate of 3½ percent and in part to the low contract rate of 4 percent.

In addition to the interest reductions, provision has also been made for the deferment of the principal portion of installments on loans outstanding on May 12, 1933, or made within 2 years after that date, provided the loan is otherwise in good standing. Deferments in force on December 31, 1934, totaled \$14,060,419. In other cases, where borrowers have been unable to pay maturing interest and principal installments through no fault of their own, the banks were authorized to grant extensions of time. Extensions of this nature in force on December 31, 1934, totaled \$35,140,928.

Aside from the benefits through interest reductions, the making available of credit in itself had far-reaching effects, perhaps the most important of which was limiting the number of distressed farms and facilitating their withdrawal from the real estate market. In addition, former holders of farm mortgage loans, as well as other creditors, were enabled to improve their financial position.

The refinancing program has resulted in a considerable shift in the geographic distribution of the holdings of the Federal land banks. The greatest increases in loans outstanding between December 31, 1932, and December 31, 1934, took place in the North Central States, where holdings of the land banks more than doubled. Loans outstanding in the Pacific States almost doubled during the 2-year period. The smallest increases in loans were in the Mountain and in the East South Central States, where holdings increased by about one-fifth. For the United States as a whole, holdings of the Federal land banks increased 71 percent, and if Land Bank Commissioner loans are included, 126 percent.

On December 31, 1934, after nearly 2 years of refinancing activities, 51.2 percent of the land bank loans were in the North Central States (32.4 percent in the West North Central and 18.8 percent in the East North Central) as compared with 39.9 percent as of December 31, 1932. On January 1, 1930, nearly 60 percent (4) of the total farm-mortgage debt of the country was in the North Central States, so that the proportion of land bank loans in this area is still lower than the proportion of total mortgage debt in the area at the beginning of the depression.

The East and West North Central States were the areas where the land banks held the smallest proportion of the total mortgage debt at the beginning of the depression. These areas were supplied with credit by insurance companies, commercial banks, mortgage companies, and active and retired farmers, at average rates not greatly in excess of the prevailing rate charged by land banks. For instance, as of January 1, 1928, 79 percent of insurance company holdings were in the North Central States, with an average rate of interest somewhat below the land bank rate at that time (10).

The farm-mortgage debt of the United States has been concentrated most heavily in the North Central States for a considerable period, and in 1932 a larger proportion of farms in this area than in any other area carried mortgage indebtedness in excess of 50 percent of their value (4).

With the serious curtailment of funds from accustomed sources, and the increasing difficulty which farmers experienced in meeting their contractual obligations on mortgages and other debt, the need for refinancing became particularly acute.

During the 2 years ended December 31, 1934, 63.5 percent of the loans closed by the land banks have been in the North Central States (40.7 percent in the West North Central and 22.8 percent in the East North Central).

The concentration has not been so marked in the case of the Land Bank Commissioner loans: 51.6 percent of such loans are in the North Central States (32.0 percent in the West North Central and 19.6 percent in the East North Central States).

Although the supply of credit was seriously restricted in other areas as well, a smaller amount of credit was necessary to relieve the situation. In addition, less refinancing by the land banks was necessary in other regions, since a larger proportion of the mortgages were already held by the land banks, and these benefited by the emergency reduction in interest rates, or the suspension of principal payments.

The loans made by the land banks and the Land Bank Commissioner have been used principally to refinance indebtedness. For the



country as a whole, 88 percent of the land bank loans during the period May 1, 1933, to September 30, 1934, were used for this purpose, 70.6 percent to refinance first and junior mortgages and 17.4 percent for other indebtedness (7, *Rept. 2*).

Of the Land Bank Commissioner loans made during the same period, 92.5 percent were used to refinance indebtedness, 73.4 percent for first and junior mortgages, and 19.1 for other indebtedness. The variation from State to State in either case is surprisingly small.

It is interesting further to compare the proportion of the proceeds of land bank loans used to refinance mortgage indebtedness, held by various agencies on the one hand, with the proportion of total mortgage debt (exclusive of that held by the land banks, for action in distress cases of this type usually consisted of extension or reamortization by the land banks and would not show up under new loans) held by the respective agencies on the other. Table 9 presents this comparison.

The relationship between distribution of holdings and distribution of land bank loan proceeds for the country as a whole is in general representative of the situation in each of the geographic divisions.

In view of the policy of liquidating the holdings of joint stock land banks, it is to be expected that they would receive more than a proportionate share of the land bank loans. This relationship holds in each of the geographic divisions except the South Atlantic and the East South Central.

In all regions except the Mountain States the percentage of the proceeds of land bank loans received by commercial banks and their receivers exceeded the proportion of their holdings. For the country as a whole, the commercial banks had held (as of 1928) 12 percent of the farm-mortgage debt<sup>2</sup> and received 24 percent of the land bank loans to refinance indebtedness.

TABLE 9.—Federal land bank loans used to refinance mortgage indebtedness: Percentage distribution by type of former creditor, and percentage of total mortgage indebtedness (except that owed to Federal land banks) held by such creditors, by geographic divisions

Geographic division	Proportion of total mortgage debt (exclusive of that held by Federal land banks) held by specified agency <sup>1</sup>					Proportion of loan proceeds used to refinance mortgage indebtedness received by specified former creditor <sup>2</sup>				
	Joint stock land banks	Commercial banks and receivers	Insurance companies	Other	Total	Joint stock land banks	Commercial banks and receivers	Insurance companies	Other	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
New England.....		45		55	100		56		44	100
Middle Atlantic.....	7	12	( <sup>3</sup> )	81	100	15	28		57	100
East North Central.....	9	15	21	55	100	10	30		40	100
West North Central.....	6	7	35	52	100	8	21	27	44	100
South Atlantic.....	21	14	16	49	100	19	24	9	48	100
East South Central.....	11	17	43	29	100	9	32	25	34	100
West South Central.....	15	5	33	47	100	18	10	29	43	100
Mountain.....	6	21	7	66	100	14	17	10	59	100
Pacific.....	7	32	9	52	100	13	40	6	41	100
United States.....	8	12	26	54	100	11	24	22	43	100

<sup>1</sup> Jan. 1, 1928.

<sup>2</sup> Based on distribution of loans from May 1, 1933, to Sept. 30, 1934.

<sup>3</sup> Less than 0.5 percent.

<sup>9</sup> In the remainder of this section, "debt" will be understood as the total excluding that held by the land banks.

Again excepting the Mountain States, insurance companies received a share of the proceeds of loans to refinance indebtedness less than proportionate to their holdings in each of the geographic divisions. For the whole United States, insurance companies, having held 26 percent of the debt<sup>10</sup> received 22 percent of the land bank loans used to refinance indebtedness.

Other creditors, consisting largely of farmers and other individuals, having held 54 percent of the debt, received 43 percent of the land bank loans used to refinance indebtedness. The East South Central States was the only division in which their holdings were less than the proportion of loan proceeds received through refinanced loans.

At the outset, in May 27, 1933, the most urgent task of the Farm Credit Administration, insofar as it related to accumulated debt, consisted of the emergency refinancing of farm-credit needs through the land banks and the Land Bank Commissioner, and the granting of similar relief to those already indebted to the land banks.

With the major portion of the emergency financing task completed, the permanent program of supplying adequate farm-mortgage credit at the lowest cost in line with capital market conditions begins to assume increasing significance. Steps have been taken toward improving appraisal practices and technique, as well as raising the standards of the appraisal force. Comprehensive surveys have been undertaken with a view to rehabilitating national farm loan associations and strengthening their position as sound field-service units. The nonpermanent farm-credit institutions have been liquidated as rapidly as is consistent with the situations involved.

In carrying out the emergency refinancing program, the land banks were dependent for the major part of their funds on sources other than the open market. Aside from the funds on hand, loans made from May 1933 through March 25, 1934, were financed by loans from the Reconstruction Finance Corporation, from the sale of consolidated farm-loan bonds to production-credit corporations, from the Federal Farm Mortgage Corporation, and from public money secured by consolidated farm loan bonds deposited with the Federal land banks by the United States Treasury (7, *Rept.* 2).

On March 26, 1934, the policy of disbursing loans in Federal farm-mortgage bonds was adopted, and since that time the bonds and most of the cash required for lending purposes have been obtained from the Federal Farm Mortgage Corporation in exchange for consolidated farm loan bonds. Cash was used to pay such items as taxes, insurance on farm property, or fractional amounts. On April 4, 1935,<sup>11</sup> the amount of a creditor claim that would be paid in cash was increased from \$500 to \$1,000.

The first public offering of consolidated farm loan bonds was made June 18, 1934, all the proceeds of which were to retire individual land bank bonds. This issue bore an interest rate of 4 percent, while the bonds retired carried a rate of 4¾ percent.

A second public offering of consolidated farm loan bonds, bearing 3¼-percent interest was made April 8, 1935. The proceeds of this

<sup>10</sup> See footnote 9, p. 25.

<sup>11</sup> [UNITED STATES] FARM CREDIT ADMINISTRATION. LAND BANKS WILL USE CASH TO PAY LOANS AND CLAIMS OF LESS THAN \$1,000. Press Serv. no. 7-13. Apr. 4, 1934.. [Mimeographed.]

issue were for the purpose of refunding 5-percent individual land bank bonds, the entire outstanding issue of which was called for payment May 1, 1935.<sup>12</sup> The low rates at which land bank bonds have been sold are directly reflected in the reduction of the contract rate on land bank mortgages to 4 percent, the lowest in the history of the land banks and lower than that of any other institutional lender, and is an indication of the return to a more normal financing program in which the open market is looked upon as the major direct source of credit funds.

In addition to the low interest rate effective on new loans by the Federal land banks, there are some additional developments that appear to hold promise in the way of contributing to sounder farm-mortgage financing.

One such prospective development lies along the lines of a differential interest rate, graduated in accordance with the risk on individual loans. In the past, lending agencies have commonly maintained uniform interest rates within a specified region or area for loans made at a given time. It was possible, of course, for the lending agency to compensate for varying risk by raising or lowering the appraised value or the loan ratio (or both) for any specific property, but this procedure did not give the good credit risk the benefit of securing the use of money at a lower rate than the poor risk. The man who was a good credit risk helped pay the cost of lending money to the one who was the poor risk.

Of especial interest, therefore, is the recent attention devoted to developing a plan whereby individual risks are taken into account in the interest rate charged the individual borrower. Under the plan, classes of risks are established on the basis of a number of risk factors, one of the most important of which is the ratio of the loan to the appraised value. The preferred classes obtain loans at rates of interest consistent with the risk involved.

The variation in individual risks occasioned by the size of the margin of safety arises in considerable degree from the drastic declines in real estate values resulting from shifts in relations between dollars on the one hand and commodities on the other. Were contracts devised with sufficient flexibility so that loans might be kept in good standing even in times of drastic changes in price levels, a recurrence of the catastrophe of wholesale loss of equities experienced during the last few years might be prevented to a considerable extent.

A second recent development is here significant. It consists in the adjustment of principal payments on mortgage contracts according to prices received by farmers. The particular contract that has been put into effect in certain of the Corn Belt States calls for a varying amount of principal payment, based on the price of corn on the Chicago market. Although the interest rate is not varied, there is a considerable advantage to both the borrower and the lender in having the principal payment flexible. Larger payments are called for when the farmer is in a position to make them, thus hastening the extinguishing of the debt. With price declines, smaller payments are called for, and, after prices fall to specified minimum levels, no principal payments are demanded. These items are detailed in the loan

<sup>12</sup> [UNITED STATES] FARM CREDIT ADMINISTRATION. LAND BANKS OFFER REFUNDING BOND ISSUE OF \$162,000,000. Press Serv. 7-17. Apr. 8, 1935. [Mimeographed.]



agreement, and thus the way is open for keeping the loans in good standing and at the same time protecting the contractual rights of both parties.

#### RATIO OF CASH RENT TO VALUE OF FARM REAL ESTATE REMAINS UP

In the case of any form of investment, the relations between current yield, expected future yields, rate of capitalization, and the value placed on the investment by the market, are recognized as having high significance.

In the case of bonds, for example, where fixed annual returns are pledged for a prescribed period, the market value depends to a large extent upon the degree of confidence that the annual payments will be made as pledged, upon the nearness of the maturity date, and upon the rate of return that money is bringing in the market.

In the case of a common stock, the dividends are variable, dependent in a general way upon the resources of the business enterprise. When business profits are increasing, investors are often willing to accept a lower rate of return on the current valuation than when profits are declining. Thus the ratio of current dividends to current valuations of many stocks fell to very low levels in the years immediately preceding 1929. Additional elements of uncertainty arise here, for the dividends are not fixed, but are contingent. Nevertheless, the return that investors are willing to accept is a significant characteristic of economic circumstances at a given time.

Although there is no organized land market comparable to that for stocks or bonds, there is a similar measure in the relation between current yields of farm land and the current values that is an important characteristic of this market. Probably the part of the land market in which this relationship is most clean-cut is in the case of land rented for cash.

Crop reporters of the Department of Agriculture have reported since 1921 the average cash rent paid in their communities and their estimates of the value of the land so rented. Upon the basis of such reports, the data since 1921 in tables 10 and 11 have been prepared.

In 1935 estimates of cash rent paid for farms and of the value of farms so rented show a slight increase for a second consecutive year for the west North Central States as a group. Cash rents increased in Minnesota and Iowa, and to a smaller degree in Missouri, and declined slightly in North Dakota, South Dakota, Nebraska, and Kansas, reflecting the effects of the drought.

It should perhaps be observed that the rents indicated refer to contract rents, given at the beginning of the respective years. In 1921, 1931, 1932, and 1933 it is entirely possible that in view of the magnitude of the drop in the prices of farm products, concessions may have been made so that the rents actually collected may have been lower than those contracted. Since values are also reported at the beginning of the year, and a modification of rent would probably involve a corresponding change in the estimate of value, it would appear that whatever bias may exist on this score would not materially affect the relationship between rent and value.

TABLE 10.—Farm real estate rented for cash in Iowa: Approximate net rent per acre and proportion of current value based on current rents, 1900-1935<sup>1</sup>

Year	Average value per acre of cash-rented land	Gross cash rent per acre	Taxes plus estimated depreciation and repairs per acre	Approximate net rent per acre	Ratio of rent to value		Net rent capitalized at 5½ per cent	Proportion of value represented by capitalized net rent
					Gross rent	Net rent		
	Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Percent
1900.....	42	3.29	0.42	2.87	7.80	6.80	52	124
1901.....	47	3.30	.44	2.86	7.00	6.10	52	111
1902.....	54	3.31	.49	2.82	6.10	5.20	51	94
1903.....	61	3.39	.55	2.84	5.60	4.70	52	85
1904.....	66	3.52	.59	2.93	5.30	4.40	53	80
1905.....	66	3.57	.58	2.99	5.40	4.50	54	82
1906.....	66	3.65	.57	3.08	5.50	4.70	56	85
1907.....	71	3.75	.60	3.15	5.30	4.40	57	80
1908.....	76	3.88	.64	3.24	5.10	4.30	59	78
1909.....	80	4.07	.66	3.41	5.10	4.30	62	78
1910.....	87	4.22	.70	3.52	4.90	4.00	64	74
1911.....	97	4.30	.79	3.51	4.40	3.60	64	66
1912.....	106	4.47	.84	3.63	4.20	3.40	66	62
1913.....	120	4.60	1.04	3.56	3.80	3.00	65	54
1914.....	125	4.95	1.06	3.89	4.00	3.10	71	57
1915.....	135	5.14	1.13	4.01	3.80	3.00	73	54
1916.....	153	5.47	1.23	4.24	3.60	2.80	77	50
1917.....	160	5.73	1.35	4.38	3.60	2.70	80	50
1918.....	175	6.38	1.42	4.96	3.60	2.80	90	51
1919.....	191	7.17	1.64	5.53	3.80	2.90	101	53
1920.....	255	8.19	2.03	6.16	3.20	2.40	112	44
1921.....	236	10.48	2.14	8.34	4.44	3.53	152	64
1922.....	188	7.42	2.18	5.24	3.95	2.79	95	51
1923.....	170	7.39	2.12	5.27	4.35	3.10	96	56
1924.....	164	7.38	2.15	5.23	4.50	3.19	95	58
1925.....	154	7.39	2.07	5.32	4.80	3.45	97	63
1926.....	153	7.55	2.10	5.45	4.93	3.56	99	65
1927.....	149	7.69	2.15	5.54	5.16	3.72	101	68
1928.....	142	7.75	2.15	5.60	5.46	3.94	102	72
1929.....	140	7.79	2.22	5.57	5.56	3.98	101	72
1930.....	130	7.77	2.20	5.57	5.98	4.28	101	78
1931.....	114	7.43	1.97	5.46	6.52	4.79	99	87
1932.....	93	6.08	1.71	4.37	6.54	4.70	79	85
1933.....	70	4.46	1.42	3.04	6.37	4.34	55	79
1934.....	78	4.99	1.42	3.57	6.40	4.58	65	83
1935.....	81	5.21	1.45	3.76	6.43	4.64	68	84

<sup>1</sup> All data preliminary.<sup>2</sup> Taxes per acre are estimated for 1935.

Inasmuch as the landlord has certain expenses to pay from his share of the income and since it is presumably the relation of net rent to value that is most significant, deductions from gross rents have been made for taxes, depreciation, and repairs to secure an approximation to net rents. Data on real estate taxes per acre by States are based on estimates made by the Bureau, and an allowance for depreciation and repairs to buildings has been calculated as 3 percent of building values—an estimate based on farm-management surveys. The value of buildings has been estimated from census data. Although the results are not applicable to any specific farm they are believed to be representative of the general trends.

For the purposes of table 10, a constant rate of capitalization of 5.5 percent has been used—the approximate rate paid by farmers on mortgage indebtedness during the 1920-29 decade. In table 10, the detailed calculations for Iowa are shown; in table 11, summary data for the other West North Central States are shown.

TABLE 11.—*Farm real estate rented for cash in selected States: Approximate capitalized net rent and proportion of current value based on current rents, 1921-35*<sup>1</sup>

Year	Net rent capitalized at approximate mortgage interest rates <sup>2</sup>							Proportion of value represented by capitalized net rent						
	Minnesota	Missouri	North Dakota	South Dakota	Nebraska	Kansas	West North Central States <sup>3</sup>	Minnesota	Missouri	North Dakota	South Dakota	Nebraska	Kansas	West North Central States <sup>3</sup>
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
1921.....	80	92	23	58	76	54	97	61	85	58	64	71	71	66
1922.....	59	64	18	36	54	42	64	53	74	58	52	60	67	54
1923.....	51	62	18	31	51	39	62	49	78	62	55	60	65	57
1924.....	52	60	17	29	49	37	61	51	78	63	54	60	64	58
1925.....	50	58	15	29	49	38	61	52	82	63	57	63	67	62
1926.....	50	57	16	28	50	37	62	52	81	67	57	64	65	63
1927.....	52	55	15	27	49	37	62	55	81	63	59	64	65	65
1928.....	52	54	16	30	52	37	63	59	83	67	68	68	65	68
1929.....	52	54	16	30	53	39	63	61	86	70	70	71	68	69
1930.....	51	52	15	30	54	38	63	64	88	68	71	73	70	74
1931.....	49	46	13	30	54	34	61	70	87	68	81	76	71	80
1932.....	45	39	11	23	44	27	50	76	89	69	79	77	73	81
1933.....	34	29	9	19	31	22	36	69	91	60	79	72	67	75
1934.....	38	32	11	19	33	25	41	76	91	65	79	73	74	79
1935 <sup>4</sup> .....	39	32	10	18	32	25	42	75	89	62	78	73	74	79

<sup>1</sup> All data preliminary.<sup>2</sup> Approximate mortgage interest rates used: Minnesota, 5½; Missouri, 6; North Dakota, 6½; South Dakota, 6; Nebraska, 5½; Kansas, 6 percent.<sup>3</sup> Weighted average; includes Iowa.<sup>4</sup> In obtaining approximate net rents, taxes per acre are estimated for 1935.

In table 10, data for 1935 continue the series presented in last year's report. Cash-rent data prior to 1921 have been based on Chambers' work (1), and data on value per acre of farm real estate prior to 1913 are preliminary reports from records of farm real estate transfers in a number of Iowa counties.<sup>13</sup> From 1914 to 1935 the land-value series is based on estimates of crop reporters.

Constant rates of capitalization were used, and the changes in the ratios arise directly out of the changes in the relationship of net rent to value.

Values in all States in the group declined through 1933, with a less rapid rate of decline from 1922 through 1930. Rents also dropped precipitously following the crash of prices after the World War but remained nearly constant or increased slightly from 1923 to 1929, following which they again dropped, reaching new lows at the nadir of the depression in 1933.

The deductions from gross rents remained about constant in North Dakota, South Dakota, and Iowa through 1930. In all other States the deductions increased somewhat during the middle of the period but declined in all States after 1930. The trend in these deductions is influenced largely by the movement of taxes.

After 1922 the ratio of both gross and net rent to value increased gradually, but none the less significantly, the former to between 6 and 7 percent and the latter to between 4 and 5 percent. Similarly the proportion of current values explainable on the basis of rent

<sup>13</sup> Unpublished data now in process of preparation. The study from which the data were secured was conducted by the Bureau in cooperation with the Civil Works Administration and the Iowa State College.



capitalization increased. The weighted average ratio for the West North Central States increased from only slightly over 50 percent in 1922 to over four-fifths in 1931 and 1932. After a moderate decline in 1933, the ratio recovered in 1934 and 1935 to nearly the 1931 and 1932 level.

Among the individual States, the most marked increases in the ratio are to be found in the States which reached the lower levels in the proportion of value explained by capitalized rent. Minnesota, Iowa, and South Dakota all reached levels in 1922 and 1923 where rents explained but about 50 percent of estimated values.

For 1935, Iowa was the only State in the group in which the proportion of value represented by capitalized net rents increased. In all other States the ratio remained constant or declined. In Minnesota and Missouri values increased more rapidly than either gross or net rents. In the remaining States values decreased less than rents.

It is not to be inferred that the capitalized net rents necessarily represent the true value of farm land for any 1 year, for estimations of value depend presumably upon the present worth of all future incomes and not upon that for any 1 year. Hence, the fact that net rents capitalized at approximate mortgage rates do not account for the whole of the estimated current values is not in itself a sufficient indication on which to base a judgment that such values are too high or too low.

#### RENTS AND VALUES FOR 35 YEARS COMPARED

The current situation is characterized by certain unique features which render particularly appropriate a review of the relationship of the present level of values to the long-time trend. The last 2 years, for example, have been the first since before 1920 that farm real estate values have risen on a country-wide scale. Further, the recent rise began from levels that for the principal agricultural sections were lower than those of 1910.

The relatively low prices of farm real estate afford opportunities to buy farms at prices lower than at any other time during the last two decades, and prospective buyers are properly disposed, therefore, to inquire carefully regarding what prices they are justified in paying for farms, and the extent to which such investments are likely to appreciate or depreciate in the future. The memory that a considerable part of the agricultural distress of the last 15 years has been closely associated with land purchases and with mortgage contracts entered into on the basis of real estate earnings that failed to materialize, should encourage all those who have any interest in farm realty to give especial attention to the assumptions underlying their current and prospective valuations to the end that the catastrophic foreclosures and loss of homes as a result of debt delinquency be not repeated.

Many of those buying farms now will be paying for them over the next 2 decades. In the long run, farms must obviously be paid for from the income produced by them, and it is vital therefore that the prices at which they are purchased be in line with the prices that are realized over the purchase period.

The rise in values over the 2 years raises questions as to how long the upturn will be continued and how high values will rise. For the United States as a whole, farm realty values for March 1935 were

about one-fifth below the pre-war level; for the agricultural sections of the Middle West they were nearly one-third below the pre-war level; and for the South they were about 10 percent below.

The Bureau index of prices received by farmers during 1934 averaged about 10 percent below pre-war prices, but for the first 6 months of 1935 it averaged nearly 10 percent above pre-war prices, and gross income from farm production for 1934, as indicated heretofore, was nearly 10 percent above the pre-war level. On the other hand, prices paid by farmers for commodities used in production were about 25 percent higher than during the 1910-14 base period. For no year since 1914 have prices for these commodities been so low as during the base period. Taxes on farm real estate have been declining for 5 years but are still about one-half higher than in 1913. These factors, as well as considerations affecting alternative employment in the cities, are intimately related to farm realty values. Unfortunately, the relations are obscured both by the complexity of the question and by the lack of adequate data.

The turn of the century marked a definite upturn in farm realty values in the United States and the upturn was accelerated after 1910, but the situation then differs in at least three important respects from that of the present.

1. Price trends were favorable to agriculture. The general price level turned upward shortly after 1896 and rose very sharply after 1915. Agricultural prices on the whole rose somewhat more rapidly than nonagricultural prices, with the result that the value of farm production per acre increased rapidly after 1900. This increase was of course reflected in the prices people were willing to pay for the use of land. From 1900 to 1915, cash rents rose over 50 percent in Iowa, over 20 percent in Ohio, and nearly 30 percent in southern Wisconsin (7), an index of wholesale prices of agricultural commodities rose 40 percent, and an index of wholesale prices of all commodities rose almost 25 percent during the same period (9).

2. The end of the frontier period was reached about the beginning of the century and with it came the realization that the supply of good free land was nearing exhaustion. Prior to 1900 the frontier was being pushed westward and the acreage of land in farms was increasing throughout substantial parts of the Middle West. After 1900, however, the expansion of land in farms was confined almost wholly to the Mountain and Pacific States, and further expansion even in those regions was secured in part as a result of extensive and expensive clearing or irrigation. During this period the population of the Nation was expanding rapidly, and it appeared that population would continue to expand until the supply of land was inadequate to provide the necessary food and raw materials for the expanding population.

3. Rising land values became part of the accepted order of events. Rents and values were both rising during this period, but values rose faster than rents, and the ratio of current rents to current values declined markedly from 1900 to 1910. In other words, investors were willing to receive low returns on current values for the reason that they had grown to expect to benefit by rising land values.

The conditions of the present have marked differences which contrast strikingly with those of 1910.

1. The prices of farm products have risen markedly from the low levels of the depression period, but the price rise has been in progress for only about 2 years and not for more than a decade, as was the case in 1910. Further, peak prices such as those of 1918-20 have been realized only three times during our national history, each time during or after a war.

2. Although the supply of good free land has been exhausted, it appears that the maximum need for agricultural land will not greatly exceed that available at present. Whereas a decade ago the Nation's population was expanding rapidly, today students of population growth expect that the Nation's maximum population will be reached not much later than 1960, and at a level probably not in excess of 140,000,000, which is only about 15 percent greater than in 1930 (8, p. 97, table 1). Such a population would require about 335,000,000 acres for producing food and raw materials, or about 8 percent more than in 1930 if three rather reasonable assumptions prove to be correct, namely, that (a) habits of consumption of food and agricultural industrial raw materials will not change materially, (b) the average productivity of farmland and livestock will not change materially, and (c) mechanical power will not be further substituted for horses and mules to any considerable extent. In 1929 approximately 360,000,000 acres of land were in harvested crops, the products of roughly 50,000,000 acres of which were exported, leaving a net acreage equivalent of about 310,000,000 acres the products of which were consumed in the United States as food or as raw materials. It is apparent, therefore, that there is some reason for believing that the extent of the increase in agricultural crop land that will be required because of a growing population is very limited.

3. The ratio of cash rent (both gross and net) to value has been higher during the last few years than at any time since near the beginning of the century. It appears that during the last 3 or 4 years farmers have been counting less on a rising trend in net rents than for many years previous thereto.

One approach to the problem lies in an examination of the relation that has existed between land income and land value and observing the changes that have occurred, their significance, and their possible application to the present situation.

It will be recalled that Chambers (1) found from an analysis of land-value data taken from the census that as of 1920, farm real estate values, in an area covering most of Iowa and small parts of adjoining States were based to a considerable extent on the anticipated increase in annual rents, that is, a continuation of the upward trend of net rents for several years immediately preceding 1920.

Of the 1920 value of \$225 per acre reported for the farms in the area in question, approximately \$126, or 56 percent, was based on the expectation that rents would continue to advance at approximately 38 cents per year. The remaining \$99, or 44 percent of the then-current reported value was apparently based on the expectation that the then-current rent of \$5.47 would continue indefinitely. In this study Chambers assumed that rents were capitalized at the mortgage rate of interest.

In other words, the assumption that the annual net rent of \$5.47 would continue indefinitely, and the capitalization of this rent at 5.5



percent, lead to a valuation of \$99 per acre. Assuming in addition that annual net rents would continue to increase at an average rate of 38 cents per year, as they evidently did during the 5 years preceding 1920, lead to the valuation of \$225.

As it actually turned out, however, both the above-mentioned assumptions were in error. On the basis of the discounted value of future net rents up to and including 1935, as indicated in table 10, an investment in 1920 of approximately \$93 per acre would have paid an average return of 5.5 percent up to the present time.

It is both interesting and instructive to pursue this series of relationships somewhat further. Recognizing that "hindsight is usually better than foresight", what would land buyers of the last 30 years have been willing to pay for land had they been able to foresee net rents even to the present, with certain assumptions as to rents beyond 1935, and what effect do different assumptions as to the future have on values of the present?

Available data cover only the period 1900 to 1935, but for the period after 1935 it is possible to consider several alternatives which are within the range of reasonable expectation, and to see how these assumptions affect the period under consideration.

On referring to the period for which data on net rents in Iowa are available (table 10), it will be observed that, except for the three peak years of 1919, 1920, and 1921, the average net rent for the 10-year period 1922-31 is greater than for any other period of similar length, and that for no year in that period did the rent differ by more than 18 cents from the 10-year average of \$5.42. Considering the relative stability of prices, income, and rents over most of the period, it seems worth while to explore the effect on values of farm real estate if essentially similar conditions should prevail again in the near future. Hence an average rent of \$5.50 has been arbitrarily selected as representative of this general level.

Except for the 3 years, 1933, 1934, and 1935, during which rents reflected depression prices, net rents have not fallen below \$4 since 1914. Since 1933 each succeeding year has reported a higher rent than the year previous, that for 1935 being \$3.76. Rents have reflected price changes in a general way in the past, and as prices during the early part of 1935 have been distinctly above those of 1934, \$4 provides another level of rents which is suggested by the data as a basis for analysis.

A third level, midway between \$4 and \$5.50, has also been considered.

During the last 2 years net rents have risen from the low levels of 1933, the increase in Iowa having been from \$3.04 in 1933 to \$3.76 in 1935, according to estimates based on reports from the Department's crop reporters, an average of 36 cents per year, but the increase from 1934 to 1935 was smaller than during the preceding year. It has been assumed therefore for purposes of illustration in the assumptions involving rents greater than \$4 that rents will increase at the rate of \$0.25 per year until the assumed level is reached.

Opinion may differ as to the rate of interest that is allowable for capitalization purposes. There are, perhaps, those who believe that the mortgage rate of interest is appropriate for this purpose. The rate of 5.5 percent approximates the average interest rate paid by Iowa farmers over the last score of years and should meet the re-

quirements of this group. Others will hold that a lower rate should be used, inasmuch as a farmer receives certain intangible returns from his farm, which probably are not realized by a tenant and hence are not reflected completely in rental payments.

A rate of 3.5 percent has been rather arbitrarily selected for illustrative purposes, as approximating a lower limit of the rate that might reasonably be supposed to be acceptable. The rate is comparable with those carried by what are usually regarded as the safer classes of investments.

Illustrative of these assumptions of three levels of future annual income capitalized at two interest rates, the annual "present worth" of future incomes have been calculated for the period 1900 to 1935 and are presented in figure 7.

The basic difference between the several series, due to the rate of capitalization, is significant, and shows the striking importance of

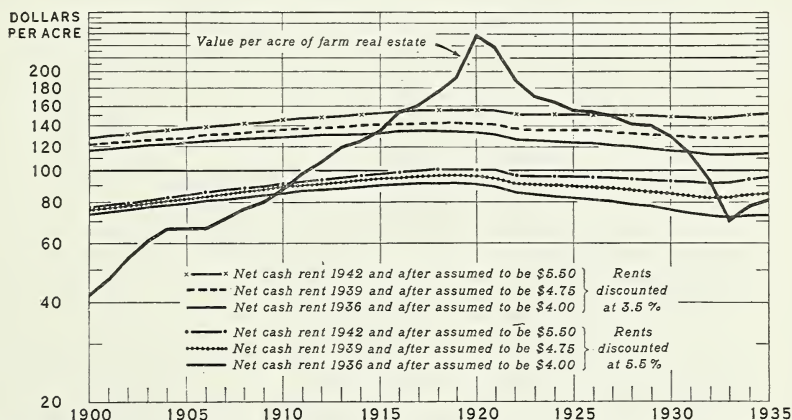


FIGURE 7. — VALUE PER ACRE OF FARM REAL ESTATE AND ANNUAL "PRESENT WORTH" OF NET RENTS UNDER SPECIFIED CONDITIONS, IOWA, 1900-1935.

The average value per acre of farm real estate in Iowa, as indicated by sales prices and by farmers' estimates, has fluctuated far more widely than seems justified on the basis of net income. In the past, farmers appear to have been prone to overestimate the effects of favorable price trends and to underestimate the effects of unfavorable price trends.

the rate of capitalization in the determination of land values, the latter being inversely proportional to the capitalization rate. This difference, of course, exists independently of the assumptions concerning income.

The differences due to the various assumed levels of income grow more pronounced from year to year, as the valuations based wholly on assumed rates become more imminent. Of most importance, probably, is the striking contrast between the trends as they existed in the market and the discounted present worth of the net rents for the several years, on any of the assumptions. The increase in market prices amounted to a little over 500 percent from 1900 to 1920, whereas the greatest increase in any of the calculated series based on discounting future net rents was only 31 percent. From 1920 to 1933 estimated current valuations dropped 73 percent, but the greatest drop in any of the series based on discounting future rents was only 21 percent.

It is evident, therefore, that the upswings and downswings have been considerably more violent than is justified by any of the assumptions illustrated. On the other hand, and this is particularly significant, although on the uptrend to 1920 there was evidently a tendency to project past trends in net rents into the future, at no time during the depression does it appear that values anticipated a continuing downward trend in rents.

Stated another way, current net rents each year during the depression, if capitalized at 5.5 percent, would have resulted in estimates of values no higher than those currently quoted.<sup>14</sup> The assumption of a downtrend continuing even for a short period, unless compensated by much higher rates later, would have resulted in much lower values during the depression than appear to have existed. Evidently, then, overvaluation is more to be feared than undervaluation. Certainly it is of paramount importance that the buyer give careful attention to the likelihood of being able to discharge his debt service from the earnings of his farm.

When farms change ownership and buyers acquire and sellers relinquish the right to such income as may be produced in the future by the lands in question, it is impossible for either buyer or seller to be fully apprized of future incomes, and the various parties to the transactions presumably consider the worth to themselves of the prospective incomes as compared with the prices involved. If each party is free to accept or reject the offer of another or to await a more opportune time; if each is in possession of the essential facts concerning the physical qualities of the properties available; if the available properties, or at least several of them, are so nearly of the same quality that there is no preference for one over the other; if each party to the transaction has about the same knowledge of general economic conditions; and if there are two or more competing buyers and sellers—in short, if the idealized conditions of a “perfect market” exist—then the prices at which the properties change hands tend to represent or reflect the composite market opinion of the present worth of the prospective incomes accruing to the farm owners. It is under these conditions that sale prices may properly be considered as a measure of value, that is, exchangeability, in terms of money.

Income as here used signifies not only money income, but also the pleasure and pride of owning a farm home, the consideration of personal and community interests, and the other more or less intangible satisfactions that may be attributed to the ownership of farm real estate.

In actual practice the market qualifications just enumerated are frequently not realized. Not all buyers and sellers are equally well informed as to general economic conditions, nor are all buyers equally able to accept or reject offers or to await a more propitious time. Foreclosure proceedings may have forced the sale of some farms; failure to meet taxes may have forced others; still other owners may prefer a sale that leaves a small equity to accepting further risk of losing their property as a result of unfavorable crops or prices. Such occurrences interfere with the free play of supply and demand under the circumstances approximating those of a “perfect market”

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<sup>14</sup> On the basis of the Bureau's index of estimated value per acre of farm real estate. Refer also to table 10.



and may and do result in the transfer of farms at prices that do not represent a composite of qualified opinion as to the present worth of future incomes.

### CHANGES IN FARM OWNERSHIP

#### VOLUNTARY TRANSACTIONS INCREASE FOR THE THIRD SUCCESSIVE YEAR

For the third consecutive year the frequency of voluntary sales for the country as a whole has increased. A similar trend has been in evidence in the principal agricultural regions as well. The average number of voluntary sales and trades for the United States as a whole (including contracts to purchase but not options) was 19.4 farms per 1,000 of all farms for the year ended March 15, 1935, as compared with 17.8 farms per 1,000 a year ago. The level established during the past year is practically the same as that for the

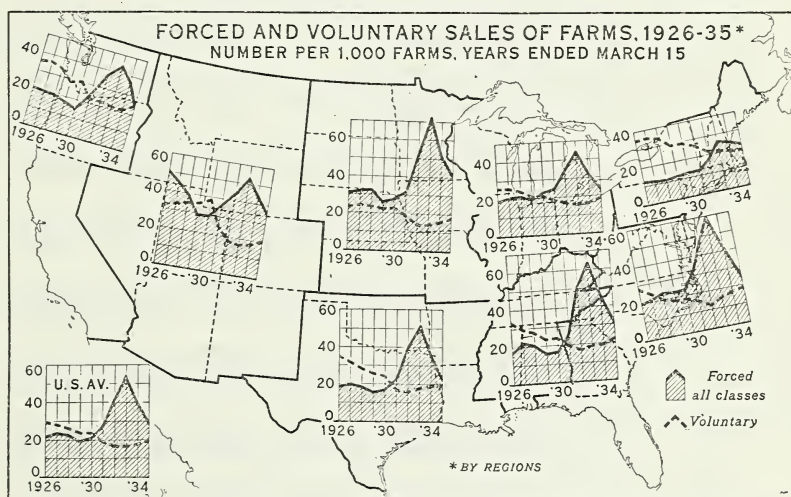


FIGURE 8.—For the third successive year voluntary sales have become more frequent, while forced sales, both as a result of default on debt and as a result of tax delinquency, have continued to decline. The declines in forced sales in the South and Middle West were again especially marked, and increases in voluntary sales were general outside of the North Atlantic States.

year ended March 1931, when an average of 19.0 farms per 1,000 were transferred voluntarily (table 12 and fig. 8).

During the last year an upturn in voluntary sales was experienced by 33 States, as compared with 30 during the preceding year. In only 10 States, as compared with 18 a year ago, did the average rate decline, and in 5 no change was reported.

Each of the North Central, East South Central, Mountain, and Pacific States reported either an increase or no change in the frequency of voluntary transfers. Three States in New England and three in the South Atlantic divisions reported fewer voluntary sales than a year ago, as did 2 States in the West South Central and 2 in the Middle Atlantic divisions. The greatest frequency of voluntary sales occurred in the Pacific States, where 25.0 farms per 1,000 of all farms were transferred voluntarily, and in the East South Central States where 22.1 were so transferred. The lowest average, 17.7 farms per 1,000, was reported in the West North Central States.

TABLE 12.—Number of farms changing ownership by various methods per 1,000 of all farms, by States and geographic divisions, 12 months ended Mar. 15, 1932-35

Geographic division and State	Voluntary sales and trades <sup>1</sup>					Delinquent taxes					Foreclosure of mortgages, bankruptcy, etc. <sup>2</sup>					Total		
	United States																	
	1932	1933	1934	1935		1932	1933	1934	1935	1932	1933	1934	1935	1932	1933	1934	1935	
United States	16.2	16.8	17.8	19.4		13.3	15.3	11.1	7.3	28.4	38.8	28.0	21.0	41.7	54.1	39.1	28.3	
New England	24.8	22.5	19.9	19.7		5.2	6.6	7.3	6.8	10.3	13.2	12.8	12.1	15.5	19.8	20.1	18.9	
Middle Atlantic	20.4	21.0	20.1	19.1		5.6	8.7	8.2	7.7	12.4	10.6	18.0	16.2	18.0	28.3	26.2	23.9	
East North Central	16.8	15.6	16.5	18.7		6.5	5.6	4.2	2.7	27.8	38.3	27.8	20.8	34.3	43.9	32.0	23.9	
West North Central	14.2	13.8	15.5	17.7		8.7	10.5	6.5	6.0	43.8	61.5	44.4	34.6	52.5	72.0	50.9	40.6	
South Atlantic	12.3	15.3	17.6	18.5		21.0	27.3	18.2	10.8	26.1	32.2	22.5	13.7	47.1	59.5	40.7	24.5	
East South Central	17.2	18.9	19.1	22.1		26.0	27.1	20.2	12.0	24.6	36.4	24.7	18.6	50.6	63.5	44.9	30.6	
West South Central	15.4	17.6	18.8	18.8		13.2	16.0	12.2	5.9	27.0	35.2	22.1	17.0	40.2	51.2	34.3	22.9	
Mountain	17.6	16.8	17.5	20.2		16.5	19.2	15.4	12.0	27.0	33.6	28.7	19.8	43.5	52.8	34.7	35.7	
Pacific	22.3	21.3	20.9	25.0		10.8	8.1	6.5	4.8	26.8	36.0	30.6	19.8	37.6	44.1	47.1	24.6	
New England:																		
Maine	21.0	21.2	22.4	22.2		9.1	13.3	12.6	10.2	14.6	17.0	18.2	17.2	23.7	30.3	30.8	27.4	
New Hampshire	30.4	27.5	26.0	25.1		9.0	8.6	8.9	8.4	7.4	15.1	10.4	10.4	16.4	23.7	19.3	18.8	
Vermont	32.2	27.4	20.3	21.3		1.7	2.1	3.6	3.6	9.7	15.0	15.9	17.1	11.4	17.1	19.5	20.7	
Massachusetts	22.8	20.0	15.2	15.6		2.4	3.1	5.9	7.9	8.1	10.3	10.0	9.2	10.5	13.4	15.9	17.1	
Rhode Island	23.6	19.5	17.5	17.5		1.0	1.2	1.1	1.1	4.0	3.7	3.8	3.6	5.0	4.9	5.0	4.7	
Connecticut	21.9	18.7	15.4	13.4		2.2	1.8	1.6	1.2	8.9	7.1	5.2	2.3	11.1	8.9	6.8	3.5	
Middle Atlantic:																		
New York	24.1	24.1	23.8	21.6		7.0	11.8	11.1	8.6	12.9	21.5	20.8	18.8	19.9	33.3	31.9	27.4	
New Jersey	23.5	23.5	24.0	23.0		5.0	8.6	8.6	8.7	11.0	17.0	14.2	14.0	16.6	25.6	22.8	22.8	
Pennsylvania	16.4	17.6	16.0	16.2		4.4	5.8	5.4	6.5	12.2	18.2	15.9	14.0	16.0	24.0	21.3	20.5	
East North Central:																		
Ohio	16.6	16.0	17.3	19.1		2.9	2.2	2.0	1.8	21.6	31.9	20.8	17.7	24.5	34.1	22.8	19.5	
Indiana	16.7	16.3	20.2	24.0		11.9	6.6	5.7	3.0	30.1	38.3	27.6	23.1	42.0	44.9	33.3	26.1	
Illinois	15.3	13.6	13.2	15.0		4.7	6.1	4.4	3.4	29.8	44.6	33.8	21.7	34.5	50.7	38.2	25.1	
Michigan	18.5	18.1	18.6	21.9		9.4	9.3	6.2	2.0	30.6	41.1	30.3	20.8	40.0	50.4	36.5	22.8	
Wisconsin	17.1	14.1	13.3	14.1		4.8	4.4	3.4	3.3	28.3	36.0	27.5	21.2	33.1	40.4	30.9	24.5	
West North Central:																		
Minnesota	13.9	14.3	15.1	20.2		7.4	8.1	5.0	4.5	42.9	59.1	37.5	24.3	50.3	67.2	42.5	28.8	
Iowa	12.8	11.8	14.9	16.0		6.3	7.4	1.2	2.8	52.5	78.3	54.3	37.3	58.8	88.7	55.5	40.1	
Missouri	18.2	20.0	20.3	22.6		8.0	8.6	5.5	6.8	42.1	51.2	36.1	29.0	50.1	59.8	41.6	35.8	
North Dakota	12.4	10.7	13.7	14.0		22.0	29.6	12.0	6.0	54.0	63.3	31.3	18.9	67.0	92.9	43.3	24.9	
South Dakota	9.8	10.1	9.8	11.6		18.1	25.1	22.6	16.3	49.2	78.0	64.2	62.4	76.3	103.1	86.8	78.7	

Nebraska.....	13.5	10.7	14.7	14.7	4.6	5.7	5.2	4.0	34.4	58.2	45.8	41.0	39.0	63.9	51.0	45.0
Kansas.....	13.8	11.6	13.6	16.6	7.1	8.4	7.6	7.3	36.0	52.7	48.0	40.7	43.1	61.1	55.6	48.0
South Atlantic:																
Delaware.....	19.0	14.7	16.0	17.5	1.5	5.1	3.4	3.3	14.5	19.9	19.0	18.1	16.0	25.0	22.4	21.4
Maryland.....	18.8	14.2	15.6	17.1	12.0	11.0	6.4	5.0	22.3	21.5	22.0	14.9	34.3	32.5	28.4	19.9
Virginia.....	9.8	14.6	12.6	16.8	9.5	15.3	13.6	5.1	29.3	23.0	19.6	14.6	38.8	43.3	33.2	19.7
West Virginia.....	15.7	18.3	16.0	13.6	32.5	49.5	38.1	15.8	12.9	17.6	14.6	12.2	45.4	67.1	52.7	28.0
North Carolina.....	11.0	13.5	19.0	20.0	35.6	44.8	25.1	17.3	32.6	40.8	29.6	15.0	68.2	86.6	54.7	32.3
South Carolina.....	11.0	13.7	19.8	19.6	25.0	21.6	13.2	11.5	28.8	38.6	20.3	12.8	53.8	60.2	33.5	24.3
Georgia.....	10.6	16.2	18.8	18.6	10.0	13.7	11.9	6.5	26.8	34.9	24.3	11.8	36.8	43.6	36.2	18.3
Florida.....	21.0	22.3	23.8	23.8	11.8	22.9	14.1	10.5	6.7	23.1	15.5	13.2	18.5	46.0	29.6	23.7
East South Central:																
Kentucky.....	19.0	21.0	20.1	23.4	21.9	17.0	10.1	6.9	17.9	31.0	16.1	14.9	39.8	48.0	26.2	21.8
Tennessee.....	18.0	19.5	20.0	23.5	10.1	14.5	8.4	5.6	23.0	34.2	21.2	16.7	33.1	48.7	32.6	22.3
Alabama.....	15.6	16.5	17.4	19.3	15.8	19.9	13.0	7.0	27.0	36.2	21.8	18.0	42.8	56.1	34.8	25.0
Mississippi.....	15.2	17.9	18.3	21.4	65.8	67.7	59.9	34.3	34.1	47.6	41.5	27.6	99.9	115.3	101.4	61.9
West South Central:																
Arkansas.....	19.6	23.9	25.1	26.7	27.8	27.2	25.0	10.1	32.7	36.9	25.5	19.3	60.5	64.1	50.5	29.4
Louisiana.....	15.5	17.8	19.3	18.7	22.3	42.6	41.2	20.2	32.5	32.8	22.9	15.1	45.8	75.4	64.1	35.3
Oklahoma.....	15.4	17.6	16.4	15.2	17.2	19.6	7.8	4.0	30.5	44.7	23.7	16.4	47.7	64.3	31.5	20.4
Texas.....	13.6	14.8	17.1	17.1	2.3	2.3	1.0	1.2	23.6	30.5	19.6	16.9	25.9	32.8	20.6	18.1
Mountain:																
Montana.....	15.0	15.5	18.6	24.2	35.0	28.1	22.8	19.0	34.6	39.8	30.1	21.8	69.6	67.9	52.9	40.8
Idaho.....	18.4	17.5	18.0	24.5	18.1	10.9	4.6	5.3	28.2	30.1	24.5	22.2	46.3	41.0	29.1	27.5
Wyoming.....	22.5	14.7	16.7	17.5	14.9	18.1	19.0	15.6	26.3	23.2	24.0	23.4	41.2	41.3	43.0	39.0
Colorado.....	16.0	18.5	18.7	19.4	11.0	29.3	25.8	16.7	27.5	45.2	40.6	31.7	38.3	74.5	66.4	48.4
New Mexico.....	22.0	19.2	18.6	19.6	3.7	7.5	6.3	8.1	20.1	26.2	22.3	21.1	23.3	33.9	28.8	29.2
Arizona.....	22.5	18.2	20.0	20.0	8.2	7.9	7.9	8.2	32.1	26.2	13.6	14.2	40.3	33.1	27.5	22.4
Utah.....	13.1	12.4	11.1	11.5	14.0	15.6	9.6	4.7	17.2	21.3	21.8	20.1	31.2	37.4	31.4	24.8
Nevada.....	23.7	14.2	12.0	13.2	10.0	5.2	5.2	4.2	25.0	22.0	20.1	17.8	35.0	27.2	25.3	22.0
Pacific:																
Washington.....	18.4	18.1	20.0	25.1	12.5	10.4	8.9	7.0	24.0	34.1	28.0	24.4	36.5	44.5	36.9	31.4
Oregon.....	27.6	25.4	26.4	28.4	9.5	7.8	4.3	4.6	22.3	33.5	26.1	19.8	31.8	41.3	30.4	24.4
California.....	22.3	21.4	19.2	23.5	10.4	7.0	6.1	3.7	30.2	38.0	33.9	17.3	40.6	45.0	40.0	21.0

¹ Including contracts to purchase (but not options).

² Including loss of title by default of contract, sales to avoid foreclosure, and surrender of title or other transfers to avoid foreclosure.



TABLE 12.—Number of farms changing ownership by various methods per 1,000 of all farms, by States and geographic divisions, 12 months ended Mar. 15, 1932-35—Continued

Geographic division and State	Inheritance and gift				Administrators' and executors' sales <sup>3</sup>				Miscellaneous and unclassified				Total all classes			
	1932	1933	1934	1935	1932	1933	1934	1935	1932	1933	1934	1935	1932	1933	1934	1935
United States.....	10.4	13.1	12.6	12.2	6.2	7.0	6.7	7.1	2.2	2.6	2.4	2.1	76.6	93.6	78.6	69.1
New England.....	10.2	11.9	10.9	11.6	6.9	7.1	5.5	6.7	3.1	2.2	2.0	1.2	60.5	63.5	53.4	58.1
Middle Atlantic.....	9.0	11.2	11.7	12.6	6.1	7.9	8.4	9.7	3.8	1.5	1.9	1.9	55.3	69.9	68.2	67.2
East North Central.....	11.0	13.3	13.1	12.2	8.1	7.6	7.7	8.0	2.2	2.3	2.1	1.7	72.4	82.7	71.4	64.1
West North Central.....	9.8	12.9	11.8	11.9	4.9	6.1	5.7	6.5	2.4	2.3	2.0	1.8	83.8	107.1	85.9	78.5
South Atlantic.....	13.3	16.7	16.1	15.5	8.1	10.2	9.9	9.1	2.6	3.2	3.0	2.2	83.3	104.9	87.3	69.8
East South Central.....	11.1	13.7	12.7	11.9	6.2	7.5	6.5	6.6	2.1	3.0	2.7	2.1	87.2	106.6	86.9	74.3
West South Central.....	8.8	11.8	11.2	10.7	4.9	4.8	4.9	5.1	2.0	2.9	2.4	2.3	71.3	88.3	71.6	69.8
Mountain.....	7.8	9.5	9.9	9.0	4.5	4.1	4.5	4.5	2.1	2.2	2.1	2.3	75.5	85.4	73.1	71.7
Pacific.....	7.5	11.2	10.3	9.9	4.3	3.9	3.3	4.5	2.0	2.2	2.7	2.2	73.7	82.7	74.3	66.2
New England:																
Maine.....	11.2	14.8	15.5	15.7	6.8	6.8	5.8	6.5	3.2	1.6	1.3	.8	65.9	74.7	75.8	72.6
New Hampshire.....	13.9	14.0	10.9	9.6	11.4	9.6	5.2	9.3	4.3	3.8	3.0	1.4	76.4	78.6	64.4	64.2
Vermont.....	10.1	10.1	8.6	9.3	9.0	9.6	6.9	9.7	2.4	2.8	2.5	.8	65.1	67.0	57.8	61.8
Massachusetts.....	8.0	11.3	7.9	10.1	2.5	3.1	4.1	4.4	3.5	1.8	1.9	1.2	47.3	52.6	45.0	43.4
Rhode Island.....	4.7	7.3	8.6	3.1	4.7	3.0	6.0	5.4	2.5	.5	1.0	1.0	40.5	37.5	38.1	37.7
Connecticut.....	9.0	7.5	8.4	9.8	7.2	3.9	5.4	4.3	2.4	2.4	2.2	2.6	51.6	41.4	38.2	33.6
Middle Atlantic:																
New York.....	9.0	12.0	12.6	13.6	4.9	6.6	6.8	6.9	1.9	1.9	1.8	2.2	53.8	78.9	76.9	71.7
New Jersey.....	5.0	8.8	7.0	11.0	5.0	8.3	8.2	9.0	1.0	1.5	1.5	1.6	50.5	67.7	63.5	67.4
Pennsylvania.....	9.6	9.9	11.5	11.9	7.5	9.0	10.0	12.4	1.9	1.2	2.0	1.6	52.0	61.7	60.8	62.6
East North Central:																
Ohio.....	13.1	14.8	15.0	12.1	9.2	9.8	10.7	10.3	1.4	1.8	2.1	1.5	64.8	76.5	67.9	62.5
Indiana.....	13.7	15.0	15.5	14.8	11.5	9.8	10.9	10.6	3.1	2.6	2.2	1.9	87.0	88.6	82.1	77.4
Illinois.....	12.4	15.7	14.7	14.7	7.4	7.5	6.6	8.0	2.5	2.0	1.8	1.3	72.1	89.5	74.5	64.1
Michigan.....	9.7	10.8	10.4	10.6	6.8	4.7	5.0	5.8	2.7	2.7	2.1	1.8	77.7	86.7	72.6	62.9
Wisconsin.....	5.4	9.1	9.3	8.6	5.1	5.5	4.6	4.7	1.6	2.5	2.3	2.1	62.3	71.6	60.4	54.0
West North Central:																
Minnesota.....	10.0	12.5	10.4	8.7	4.7	5.7	4.8	4.3	3.4	2.3	2.6	1.7	82.3	102.0	75.4	63.7
Iowa.....	12.1	13.0	12.2	11.6	6.2	6.1	6.4	7.6	2.8	2.7	1.8	1.5	92.7	119.3	90.8	76.8
Missouri.....	10.4	13.8	11.4	12.4	4.5	6.7	4.9	5.9	2.6	2.7	2.1	2.3	85.8	103.0	80.3	79.0
North Dakota.....	6.4	9.9	10.9	9.5	3.5	5.3	5.0	5.4	2.0	1.9	1.9	2.8	100.3	120.7	74.8	56.6
South Dakota.....	7.4	11.2	11.9	15.1	3.4	5.0	4.4	6.0	2.0	1.6	1.7	2.2	89.9	131.0	114.6	114.0
Nebraska.....	9.4	14.3	11.8	14.1	5.7	5.6	7.4	9.0	1.4	1.5	1.5	1.5	69.0	96.0	86.4	84.1
Kansas.....	9.0	13.1	13.8	13.2	4.6	6.6	6.5	7.4	1.3	2.1	2.1	1.3	71.8	94.5	91.6	86.5



The increases from a year ago were greatest in the Pacific States where an increase of 4.1 farms per 1,000 was reported. The East South Central, North Central, and Mountain States also reported substantial increases.

Little information is available concerning the sellers of farms, but inasmuch as creditor agencies have taken over large numbers of farms through foreclosure proceedings, and through acceptance of deeds without formal foreclosure proceedings, it is probable that such agencies are the largest sellers of farms. It has been commonly reported through the press that creditor holders of foreclosed farms sold more farms during last year than in other recent years. With so many farms available from these sources, it would appear difficult for other owners to sell at prices that they would feel were satisfactory.

Such holders have commonly reported farms selling at prices substantially higher than a year ago. The Federal land banks for example, during the year ended December 31, 1933, disposed of 4,765 farms, including parts of farms, at a consideration of approximately 2.5 percent below the unpaid principal of the loans involved and any other outlays on the farms, made by the banks. During the 12 months ended December 31, 1934, 5,564 sales were reported (7. Rept. 2) in which the consideration received was practically equal to the investment. There is no way of knowing whether the farms sold in the two periods were of comparable quality, although it has been the general custom for creditor agencies to classify their farms according to quality and to hold on to those of the higher grades, preferring to dispose of the poorer farms first. Correspondents have indicated that during the last 2 or 3 years the demand has been such that low-priced farms have been easier to sell than high-priced farms because persons returning to the farms from the city because of unemployment have usually been interested in obtaining a farm with the least possible investment.

The total number of transfers was lower during the year ended March 15, 1935, than during the preceding year, owing principally to the decline in frequency of forced sales.

Relative to all transfers, voluntary sales and trades increased during the year, having accounted for about 28 percent of all transfers as compared with about 23 percent the previous year; forced sales accounted for only 41 percent of all transfers as compared with about 50 percent during 1934 and 58 percent during 1933. Forced transfers, however, still accounted for slightly more than half of all transfers in the West North Central States and for only slightly less than half in the Mountain States. In both areas this represents a distinct improvement over the situation in the 3 preceding years.

#### FARMERS MORE ACTIVE AS BUYERS AT VOLUNTARY SALES

Continuing the tendency indicated a year ago, the proportion of farms bought by farmers and by local residents increased during the year ended March 15, 1935 (table 13). For that period dealer correspondents reported that buyers of 81 percent of the farms bought at bona fide voluntary sales and trades were local residents. The trend for the country as a whole is evidenced in most regions as well. A local resident for the purposes of this inquiry is one



living in the same county or the county adjoining the one in which the farm bought is located.

In the East North Central States, 85 percent of the farms bought at voluntary sales and trades were bought by local residents. In the East South Central States the proportion was 86 percent; in the South Atlantic States, 82 percent; and in the West North Central States it was 83 percent. In the New England States only 58 percent were bought by local residents, but this is a distinct increase from 2 years ago, when only 50 percent of the farms were so bought.

The proportion of purchasers buying for purposes of operation declined slightly. The proportion in 1935 was 74 percent as compared with 75 percent a year ago. It is noteworthy, however, that 3 out of 4 farms bought at voluntary sale are bought for the purpose of operation rather than for speculation or other purposes.

It is also noteworthy that active farmers are becoming increasingly important in the market for farms sold at voluntary sales and trades. During last year 63 percent were bought by active farmers as compared with 58 percent in 1934 and 53 percent during 1933, the lowest percentage on record.

TABLE 13.—*Voluntary sales and trades of farm real estate: Percentage of purchases reported in specified classes of residence, occupation, and purpose of purchase, for the United States and for geographic divisions, 12 months ended Mar. 15, 1928-35*

Geographic division	Local residence								Purchase for operation							
	1928	1929	1930	1931	1932	1933	1934	1935	1928	1929	1930	1931	1932	1933	1934	1935
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
New England.....	61	57	59	48	51	50	56	58	82	85	80	79	85	85	74	68
Middle Atlantic.....	75	77	70	70	69	68	69	72	83	85	82	85	82	83	79	78
East North Central.....	85	86	83	84	78	78	78	85	83	82	80	82	77	75	73	72
West North Central.....	88	88	89	88	85	81	82	83	85	84	82	81	76	74	72	73
South Atlantic.....	80	82	82	82	79	76	81	82	81	81	78	80	78	75	75	71
East South Central.....	87	87	90	85	87	86	88	86	85	82	79	79	81	80	78	78
West South Central.....	81	80	82	77	73	76	78	78	76	76	73	70	68	68	67	66
Mountain.....	81	86	81	77	76	77	84	80	91	91	87	88	87	88	84	84
Pacific.....	75	72	71	72	66	70	71	72	87	91	84	90	88	88	89	86
United States.....	84	84	82	81	77	76	78	81	84	83	81	81	79	77	75	74

Geographic division	Occupation of purchaser															
	Active farmer								Retired farmer							
	1928	1929	1930	1931	1932	1933	1934	1935	1928	1929	1930	1931	1932	1933	1934	1935
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
New England.....	64	62	59	42	37	40	42	40	3	2	3	6	7	7	4	5
Middle Atlantic.....	62	67	56	50	45	42	47	51	5	4	4	7	5	5	5	4
East North Central.....	74	73	67	60	55	48	55	60	5	6	5	7	7	7	6	5
West North Central.....	83	82	81	75	67	58	65	69	6	5	5	8	8	9	6	6
South Atlantic.....	75	74	66	62	55	54	59	60	2	3	3	5	4	4	4	3
East South Central.....	78	78	74	69	65	66	69	71	3	2	2	3	4	3	3	3
West South Central.....	74	75	70	64	53	49	54	61	6	3	4	6	5	6	7	5
Mountain.....	91	91	83	76	67	68	70	77	1	1	2	4	5	2	4	1
Pacific.....	76	82	71	65	51	52	54	62	4	2	4	4	6	6	7	4
United States.....	77	78	72	65	57	53	58	63	5	4	4	6	6	6	6	5

TABLE 13.—*Voluntary sales and trades of farm real estate: Percentage of purchases reported in specified classes of residence, occupation, and purpose of purchase, for the United States and for geographic divisions, 12 months ended Mar. 15, 1928-35—Continued*

Geographic division	Occupation of purchaser—Continued							
	Other occupation							
	1928	1929	1930	1931	1932	1933	1934	1935
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
New England.....	33	36	38	52	56	53	54	55
Middle Atlantic.....	33	29	41	43	50	53	48	45
East North Central.....	21	21	27	33	38	45	39	35
West North Central.....	11	13	14	17	25	33	29	25
South Atlantic.....	23	23	30	33	41	42	37	37
East South Central.....	19	20	23	28	31	31	28	26
West South Central.....	20	22	26	30	42	45	39	34
Mountain.....	8	8	15	20	28	30	26	22
Pacific.....	20	16	26	31	43	42	39	34
United States.....	18	18	24	29	37	41	36	32

The gains during the past year, however, have not restored the ratio existing previous to 1933. The record indicates that active farmers bought over three-fourths of the farms that changed hands at voluntary sales during the years ended March 1928 and 1929.

In the New England States the proportion of farms bought by active farmers at voluntary sale was only 40 percent, in the Middle Atlantic States it was only 51 percent; but in other areas, the proportion was 60 percent or over, reaching 69 percent in the West North Central States, 71 percent in the East South Central States, and 77 percent in the Mountain States.

The proportion of farms bought by retired farmers has remained close to 5 percent throughout the 8 years during which these data have been collected. The proportion of farms bought by persons of other occupations has declined, the average for the United States having been 32 percent for the year under review. The lowest average for any area in the United States was 22 percent, in the Mountain States, and the highest average was 55 percent, in New England.

The continuing trend toward purchase by local persons and by farmers is in line with reports (2) that fewer persons were arriving at farms from the cities than in any year since 1921. The net movement of population was from farm to city, but it was slightly smaller than during the preceding year. However, the rural population has continued to increase because of the excess of births over deaths; and the young people growing up in the various farm communities constitute a new generation of farmers who are looking for farms.

In interesting contrast to the data in table 13 are those in table 14. Both tables are based on reports from the same group of correspondents, the difference being that the former refers to voluntary sales, whereas the latter refers to forced sales, and the information is available only since 1932.

The most striking contrast between the two tables lies in the proportion of buyers whom correspondents have classified as active farmers. At voluntary sales active farmers have bought a majority

of the farms, the proportion having varied from about three-quarters in 1928, 1929, and 1930, to only slightly more than a half during 1933 and 1934. But at forced sales active farmers have bought a considerably smaller proportion of the farms sold. For 1932 the proportion was only 40 percent, and it dropped to 27 percent for 1934, but turned sharply upward for the year ended in March 1935. In nearly every area, a corresponding differential exists between voluntary and forced sales.

The proportion of farms bought by retired farmers at forced sale has been only slightly higher, considering the period as a whole, than in the case of voluntary sales. Of necessity, therefore, the proportion bought by "other occupational" groups has been substantially higher in the case of forced sales.

It is interesting that a smaller proportion of farms sold at forced sale were purchased for operation than in the case of voluntary sales. About three-fourths to four-fifths of the farms sold voluntarily were bought for operation, but less than half the farms sold at forced sale were so purchased. The proportion of local purchasers was greater in the case of voluntary sales.

TABLE 14.—*Forced transfers of farm real estate: Percentage of purchases reported in specified classes of residence, occupation, and purpose of purchase, for the United States and for geographic divisions, 12 months ended Mar. 15, 1932-35*

Geographic division	Local residence				Purchase for operation			
	1932	1933	1934	1935	1932	1933	1934	1935
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
New England.....	84	67	71	69	81	56	64	52
Middle Atlantic.....	86	74	80	82	55	41	48	52
East North Central.....	75	79	71	74	48	44	39	42
West North Central.....	71	60	66	58	35	26	29	36
South Atlantic.....	77	83	76	79	48	53	43	53
East South Central.....	71	77	74	75	47	43	42	46
West South Central.....	64	65	61	71	36	32	31	27
Mountain.....	86	65	65	54	60	56	50	41
Pacific.....	67	65	78	76	60	61	45	66
United States.....	74	72	71	71	45	41	39	44

Geographic division	Occupation of purchaser											
	Active farmer				Retired farmer				Other occupation			
	1932	1933	1934	1935	1932	1933	1934	1935	1932	1933	1934	1935
New England.....	Pct. 58	Pct. 36	Pct. 47	Pct. 50	Pct. 7	Pct. 8	Pct. 3	Pct. 7	Pct. 35	Pct. 56	Pct. 44	Pct. 43
Middle Atlantic.....	45	40	33	43	11	7	5	8	44	53	62	49
East North Central.....	36	38	38	45	9	7	6	5	55	55	56	50
West North Central.....	38	26	31	34	10	11	5	8	52	63	64	58
South Atlantic.....	42	40	37	51	11	5	4	4	47	55	59	45
East South Central.....	41	48	42	52	7	4	4	1	52	48	54	47
West South Central.....	36	42	28	26	5	5	3	8	59	53	69	66
Mountain.....	58	42	28	48	5	7	9	14	37	51	63	38
Pacific.....	38	49	43	40	13	3	3	3	49	48	54	57
United States.....	40	38	27	42	9	7	6	6	51	55	67	52

These differences between the two types of sale in all probability reflect the frequent "bidding in" of farms by the foreclosing agency.



## FEWER FORECLOSURES THAN IN ANY YEAR SINCE 1931

In the report for last year (3) it was noted that the year 1933-34 was one in which the problems between delinquent debtors and their creditors were faced in a realistic way, with the result that many farms were being refinanced with scale-downs or agreements that would permit the owners to retain possession. Although there were continuing to be cases in which creditors felt that the most satisfactory solution was to foreclose, nevertheless the number of forced sales as a result of foreclosure, bankruptcy, and related proceedings, showed a very encouraging decline from the high levels of the preceding year.

The current year, 1934-35, has seen the continuation of the adjustment process and a further drop in farm transfers as a result of debt delinquency. The number of forced sales resulting from delinquency on debt service declined about one-fourth during the year, the number of farms changing ownership by this type of transfer having declined from 28.0 to 21.0 farms per 1,000 of all farms for the United States as a whole. The number of mortgages foreclosed by the Federal land banks, including farms deeded directly to the banks, during the calendar year 1934, were 27 percent below the number in the previous year (7, *Rept.* 2).

In each geographic division encouraging declines occurred in the number of forced sales resulting from debt delinquency. In the West North Central States, where the average rate a year ago was 44.4 farms per 1,000 of all farms, the number dropped to 34.6. In the Pacific States it dropped from 30.6 to 19.8. For the Mountain States the number dropped from 28.7 to 23.7. The average number of farms in the East North Central States changing ownership as a result of delinquency on debt service was only 20.8 on farms per 1,000 of all farms, as compared with 27.8 the preceding year. The Southern States also showed encouraging declines. The average for the three southern geographic divisions a year ago ranged from 22 to 25 farms per 1,000 in each region, whereas during the current year the number declined to 17.0 farms per 1,000 in the West South Central States, to 18.6 in the East South Central, and to 13.7 in the South Atlantic States. The lowest rate for any division was reported from New England, where 12.1 farms per 1,000, as compared with 12.8 a year ago, changed ownership as the result of debt delinquency. In the Middle Atlantic States the number was 16.2, as compared with 18.0 farms per 1,000 a year earlier.

The above-mentioned figures indicate the rate of forced transfers relative to the number of all farms. However, the number of mortgaged farms relative to the total number of farms varies greatly from State to State and from region to region. If these figures are adjusted on the basis of the percentage of owner-operated farms mortgaged, as given by the 1930 census, the latest data available, the estimated number of forced sales resulting from debt delinquency per 1,000 of all mortgaged farms, is as follows: New England 27.8; Middle Atlantic States 40.2; East North Central 45.4; West North Central 63.3; South Atlantic 50.7; East South Central 59.8; West South Central 42.2; Mountain 49.7; and the Pacific States 38.2. The average rate for the United States as a whole was 50.0 farms per 1,000 of all mortgaged farms.

The extent to which creditor agencies have been able to dispose of holdings that they acquired through foreclosure is not known. The Federal land banks, as stated earlier, sold more farms during the calendar year 1934 than during the previous year, and it is probable that other agencies have had similar experience in this respect.

Whether the increased sales have effected a reduction in the realty holdings of creditor agencies as a group is not known. In the case of the Federal land banks, the number of farms owned outright was 18,014 as of November 30, 1933 (7, *Rept. 1*), and 20,286 as of December 31, 1934 (7, *Rept. 2*). The carrying value of this real estate increased 20 percent, from \$58,663,079 (7, *Rept. 1*) to \$70,358,844 (7, *Rept. 2*) during the same period.

Concurrent with the declining number of foreclosures has been a decline in the applications for loans received by the Federal land banks and the Land Bank Commissioner. For the 8 months ended December 31, 1933, a total of 502,470 applications was received, an average of 62,809 per month. During the year 1934, however, only 402,829 applications, an average of 33,569 per month, were received. The average monthly rate for 1934 was only slightly over half that of the preceding 8 months, and in December 1934 only 19,497 applications were received (7, *Rept. 2*).

A declining number of applications received monthly was characteristic of each geographic division. The total amounts received monthly also were lower in every division.

The reduced rate at which applications have been received during the last year and the reduced number of foreclosures substantiates the belief that the crisis in foreclosures has been passed.

#### TAX SALES DECLINE FURTHER

The frequency of sales resulting from the nonpayment of taxes decreased further during the year, reaching a level of 7.3 farms per 1,000 of all farms, less than half the rate in 1933. Declines were reported from every geographic division, the greatest declines having come generally from the areas where the previous rates had been highest.

Considerable variation for individual States was reported, as is indicated in table 12. The highest average for any geographic division was 12.0 farms per 1,000 in the Mountain and in the East South Central States. The lowest rate was in the East North Central States, where only 2.7 farms per 1,000 of all farms were reported transferred by reason of nonpayment of taxes.

Higher income during the year has probably been the greatest factor in reducing the number of farms sold for taxes, although the continued downward trend in taxes on farm real estate, together with the measures in effect in various States to ease penalties attending inability to pay taxes, provisions permitting installment payment of delinquencies, and the refinancing activities of the Farm Credit Administration, have had their effect.

From May 1, 1933, through September 30, 1934, 2.9 percent of the proceeds of loans closed by the Federal land banks and 3.2 percent of the loans closed by the Land Bank Commissioner were paid

to tax authorities. The total amount of funds so used during that period was approximately \$45,000,000 (7, *Rept.* 2). At the end of the second year of the existence of the Farm Credit Administration, on May 27, 1935, the amount had been increased to \$52,000,000.<sup>15</sup>

Owing to the fact that laws in many States have been modified to extend the redemption period, to permit installment payments of taxes, or to prohibit the taking of tax title temporarily, the interpretation of data relating to frequency of tax sales is rather uncertain.

#### NUMBER OF BANKRUPTCIES AMONG FARMERS AGAIN TURNS DOWNWARD

During the fiscal year ended June 30, 1934, 4,716 cases of voluntary farmer bankruptcies were concluded in the courts. This is 20 percent fewer cases than the 5,917 reported during 1932-33. The fiscal year ended June 30, 1934, is the first since 1931 in which the number of farmer bankruptcies has declined.

The area of largest number of bankruptcies, as during the 3 preceding years, was the East North Central States (with the conspicuous exception of Michigan). Farmer bankruptcy cases numbering 1,384 were concluded during the fiscal year in this geographic division. Of the individual States, Illinois again reported the largest number.

Not only was the total number of farmer bankruptcies greater in the East North Central States than in other geographic divisions, but the number relative to the number of farmers was also greater. The East North Central States averaged 143 bankruptcies, the New England States 137, and the Middle Atlantic States 117 per 100,000 farms during the fiscal year. These rates compare with 209, 131, and 144, respectively, for the preceding year.

Relative to the number of farmers, farmer bankruptcies were distinctly less frequent in the South Central States than in other regions, the number per 100,000 farmers having been only 38 and 30 respectively in the East South Central and West South Central States, as compared with the United States average of 75. These rates are lower than those for the preceding year, which were 47 and 34 respectively for the two divisions.

Only in New England and the South Atlantic States was the number of farmer bankruptcies greater than during the preceding year.

In addition to the 4,716 farmer bankruptcies referred to above, 16 cases under section 12 of the Bankruptcy Act as amended March 3, 1933, 45 cases under section 74, and 349 cases under section 75 were concluded during the fiscal year ended June 30, 1934. In these cases farmers made use of the services provided through debt-cancellation commissioners in the various counties. Even if such cases are added to those settled under regular bankruptcy proceedings, the total is still 13 percent less than in 1932-33.

The latest data available on farmer bankruptcies are those for the year ended June 30, 1934. Data by States and by geographic divisions were reported in table 17 of last year's report (3).

<sup>15</sup> [UNITED STATES] FARM CREDIT ADMINISTRATION. F. C. A. LOANS THREE BILLION IN TWO YEARS. Press Serv. No. 7-31. May 27, 1935. [Mimeographed.]



FARM-MORTGAGE CREDIT CONDITIONS<sup>10</sup>

The principal developments in the farm-mortgage field during 1934-35 were the increasing importance of federally sponsored agencies and a slight revival in the general farm-credit situation. Further lowering of the interest rates to borrowers by the Federal land banks, the extension of Commissioner loans to include purchase of land, and continued low quotations for all classes of money in the general markets resulted in more general availability of real estate loans than in any previous year, were accompanied by an increased confidence in the security value of farm property, and were contributing factors in improving the position of farm-mortgage financing.

Outstanding loans of the Federal land banks continued to grow in volume throughout the year, increasing from \$1,711,000,000 at the close of July 1934, to \$2,024,000,000 at the close of July 1935. During the same 12 months Land Bank Commissioner loans rose from \$430,000,000 to \$743,000,000, thus making the total outstanding farm real estate loans in the farm-credit system \$2,767,000,000 at the mid-year point of 1935 as compared with \$2,141,000,000 1 year earlier.

Farm-mortgage loans of 39 life insurance companies, representing 82 percent of admitted assets of all legal reserve life companies in the United States, declined from \$1,076,000,000 in July 1934 to \$844,000,000 at the close of July 1935. Farm mortgages held by banks which are members of the Federal Reserve System declined from \$288,000,000 to \$259,000,000 from June 30, 1934, to June 30, 1935, and farm-mortgage holdings of joint stock land banks were reduced from \$320,000,000 to \$208,000,000.

Investments of life insurance companies in loans on farm property continued at low levels throughout the year, but showed increases over the level of previous year. Total new investments during the first 6 months of 1935 were \$22,000,000, as compared with \$12,000,000 for the first half of 1934, and \$96,000,000 for the first half of 1929. The percentage of all investments placed in farm mortgages averaged 1.7 for the first half of 1935, as compared with 1.6 percent in 1934, and 8.1 for 1929. The expansion in the proportion of farm loans of life insurance companies which occurred during the closing months of 1934 failed to hold during the first 8 months of 1935, but the volume of such investments showed a substantial increase. Despite the noticeable revival in activity the total investment continued small in comparison with pre-depression years, the proportion of less than 2 percent for the 12-month period contrasting with more than 10 percent of the total investments of these companies in farm-mortgage loans in 1930. The renewed activity has been chiefly evident in the Middle West, which has long been the area for most farm-mortgage lending by life insurance companies. Many commercial banks of this area are also reported as having resumed making farm loans during the last year.

Average interest rates on outstanding farm-mortgage loans declined during the year, chiefly because of the lower rates put into effect by the Farm Credit Administration taken in connection with the increasing proportion of the total farm-mortgage debt held by that institution and some evidences of lowered rates on loans from

<sup>10</sup> Prepared by the Division of Agricultural Finance.

commercial agencies. The  $4\frac{1}{2}$ -percent rate in effect in 1934 to borrowers through national farm loan associations was successively lowered to  $4\frac{1}{4}$  percent and to 4 percent within the month of April 1935. In June 1935 the rate on maturing interest through the ensuing 12 months was lowered to  $3\frac{1}{2}$  percent. Interest maturing during 1937-38 will bear 4 percent regardless of contract provisions. Interest after 1938 is to bear the contract rate.

Money rates in the general market continued at extremely low levels. Interest rates on prime commercial 4- to 6-month paper in New York averaged 0.88 of 1 percent from June 1934 to January 1935, and 0.75 of 1 percent for the remaining months to June 1935. Yields on 60 high-grade bonds averaged 4.34 for the first 6 months of 1935, as compared with 4.76 for the same period in 1934 and 4.63 for the entire year of 1934.

The year's legislation affecting farm-mortgage credit included provision for the use of Land Bank Commissioner's loans for the purpose of purchasing land in amounts up to 75 percent of the value of the property. Legislation affecting the interest rates on new and outstanding Federal land bank loans had the effect of reducing the carrying cost on more than \$2,000,000,000 of loans held by those institutions.

During the spring of 1935 the Resettlement Administration entered the field of farm loans, with a provision for extending credits to farmers desiring to conduct farm operations including those undertaking to establish themselves in homes of their own. Though mortgages on real estate are contemplated primarily in the process of rural resettlement, a provision is made for the extension of other forms of farm credit also.

In the spring of 1935 the Supreme Court declared the Frazier-Lemke law of June 1934 unconstitutional, thereby removing the provision for a 5-year moratorium.

A modified measure passed both houses of Congress in August 1935 in a form designed to comply with the decision of the Supreme Court. The new law provides that any farmer who declares himself a bankrupt immediately surrenders his property into the custody of the court for a maximum period of 3 years during which time the farmer may retain possession of the property upon payment of a reasonable rental. At the end of 3 years the farmer may regain clear title to his property by payment of the appraised market value, provided that secured liens may not be reduced or impaired below the fair and reasonable market value of the property. Under the 1934 law there was no limit on the amount of reduction of the debt. If the property is foreclosed the farmer has 90 days in which to redeem.

#### FARM REAL ESTATE TAXES<sup>17</sup>

Again, as in the preceding year, farm real estate taxes have decreased, while land values have advanced. Thus taxes per \$100 of land value have further declined. The decline in taxes per acre from the 1933 to the 1934 levies has averaged about 5 percent, compared with a 14-percent decrease for 1932-33 and 13 percent for 1931-32. As between the 1933 and 1934 levies, several States show increases in

<sup>17</sup> Prepared by the Division of Agricultural Finance.

average taxes per acre, and a few States, in which sales taxes have been instituted or increased, have had a large influence on the average figures. For the majority of States the year's decrease has not been as great as the average.

It must be noted that property-tax decreases have not all represented clear tax relief for farmers. Farmers help to pay the sales taxes, gasoline taxes, and other substitute levies. From curtailment of State and local government services also the farmers may gain in tax savings, but the saving is not net.

From 1913 to 1929 average taxes per acre increased 141 percent. In the latter year the United States average stood at 58 cents. The index numbers for 1932, 1933, and 1934 (on a 1913 base) were 189, 162, and 154, respectively. Taxes per \$100 of real estate value for the same 3 years were \$1.50, \$1.21, and \$1.11. Total average decrease per acre from the 1929 peak to the 1934 levy has amounted to 37 percent of the 1929 levy. On the other hand, from 1920 to 1929 farm taxes rose continuously and farm land values fell continuously. Thus the change in relative trend since the latter year is not a departure from normal but an approach toward normal.

The three principal factors allowing a decrease in farm real estate taxes are (1) increased efficiency of government, (2) decreased government services, and (3) substitute taxes. To have any great influence on land values such factors must give evidence of continuance. Increase in efficiency soon reaches a limit beyond which its progress is very slow. Both need and demand for governmental services normally show some increase in a progressing society. Readjustment of the tax base is a continuous process which cannot be foreseen far in advance. Thus while the decrease in taxes since 1929 undoubtedly has had a salutary influence, there probably is considerable reluctance to capitalize the decrease fully as a permanent factor in farm values. As stated a year ago, the effect of the current real estate tax reductions upon farmers, and upon farm values, will necessarily depend upon concurrent changes in the fiscal systems of local and State governments. It will also depend upon the likelihood that the tax reductions achieved can be retained or carried further.

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