This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Mortgage Lending Experience in Agriculture

Volume Author/Editor: Jones, Lawrence A. and David Durand

Volume Publisher: UMI

Volume ISBN: 0-870-14149-X

Volume URL: http://www.nber.org/books/jone54-1

Publication Date: 1954

Chapter Title: INTRODUCTION: HISTORICAL BACKGROUND

Chapter Author: Lawrence A. Jones, David Durand

Chapter URL: http://www.nber.org/chapters/c2942

Chapter pages in book: (p. 1 - 22)

MORTGAGE LENDING EXPERIENCE
IN AGRICULTURE

INTRODUCTION: HISTORICAL BACKGROUND

AMERICAN farmers have never known long periods of economic stability. The best available evidence of their changeable situation is the index of wholesale prices of farm products in the United States, which extends back to the end of the eighteenth century (Figure 1). In addition to relatively minor price movements, which have followed each other in rapid succession, the farm price index shows four violent movements since 1798, each associated with a major war. And according to the Warren and Pearson wholesale price index, there was another such movement during the years of the Revolution.[1] These disturbances are due, of course, to wartime inflation and increases in the demand for farm products, with a consequent rise in farm prices and incomes, and eventually in farm land values and debts. In the past, such periods of high prices and incomes have been short-lived, and the ensuing periods of depression have been severe and characterized by widespread farm mortgage distress. Whether the rise associated with World War II will have a like sequel remains to be seen. This introduction outlines the main features of the periods into which the last century and a half of agricultural history can be conveniently divided, with emphasis on trends affecting farm mortgage indebtedness and farmers' ability to carry such indebtedness.

Nineteenth Century

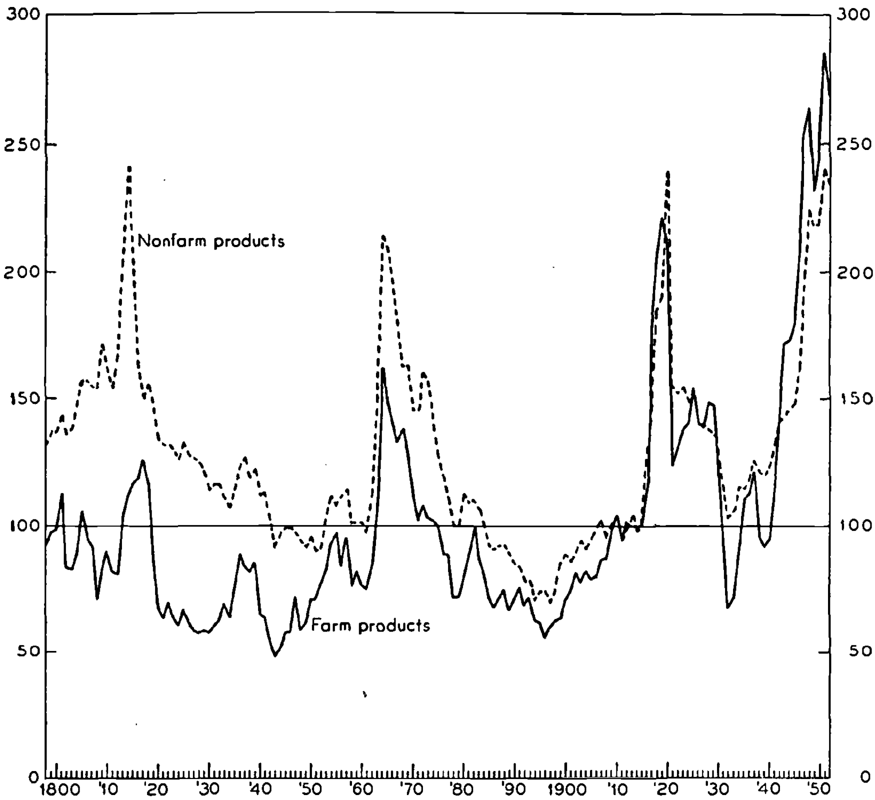
At the beginning of the nineteenth century the United States was recovering from the post-Revolutionary-War deflation.[2] As the Napoleonic Wars expanded the market for farm products, agricultural conditions improved, except for a brief period during which embargoes cut off exports, and agriculture entered a period of price inflation culminating in the boom that occurred during the War of 1812. Shortly after the peace the demand for American farm staples declined abruptly, and for

1 *Historical Statistics of the United States, 1789-1945* (Bureau of the Census), p. 233.

2 Few statistics are available concerning American business conditions following the Revolutionary War, but the newspapers carried many bankruptcy notices, and some states passed "stay and tender" laws providing moratoria for certain debts, or permitting debtors to tender goods, cattle, or land in settlement of their obligations.

nearly a decade after the panic of 1818-20 agricultural prices were low. Land values shrank drastically, and the subsequent debt difficulties of farmers and others resulted in legislation to protect and advance the interests of debtors. A Senate committee reported that "landed property was daily sacrificed at

Figure 1. Index of Wholesale Prices, Farm and Nonfarm Products, 1798-1952



BLS and Warren and Pearson indexes as compiled by Bureau of Agricultural Economics (1910-14 = 100), revised 1953. (Through 1948 as in **Agricultural Outlook Charts, 1950.**) Nonfarm products include all commodities other than farm products and foods.

sheriffs' sales for a half, a third, nay a quarter of its value, and hundreds of industrious farmers thereby deprived of their homes and the fruits of their labor. Merchandise, household goods, and farming stock, would not bring at forced sale one-half the cost of production."[3]

[3] John Bach McMaster, *A History of the People of the United States from the Revolution to the Civil War*, Vol. 4 (1897), p. 495.

In the 1830's there was a period of farm prosperity marked by heavy speculation in midwestern lands, followed by the panic of 1837 and generally distressed conditions. Agriculture and the rest of the economy suffered until 1843. Thereafter, except for a few years, agricultural prices were increasingly favorable until the end of the Civil War.

During the Civil War years farm prices doubled, and agriculture prospered except in much of the South. With the return of peace, however, prices started downward, credit tightened, and lenders began to call loans. A long period of depression ensued, which reached its depth in the panic of 1893. Heavy debts, along with declining incomes, caused widespread suffering among farmers, particularly in the West.

Twentieth Century through World War I

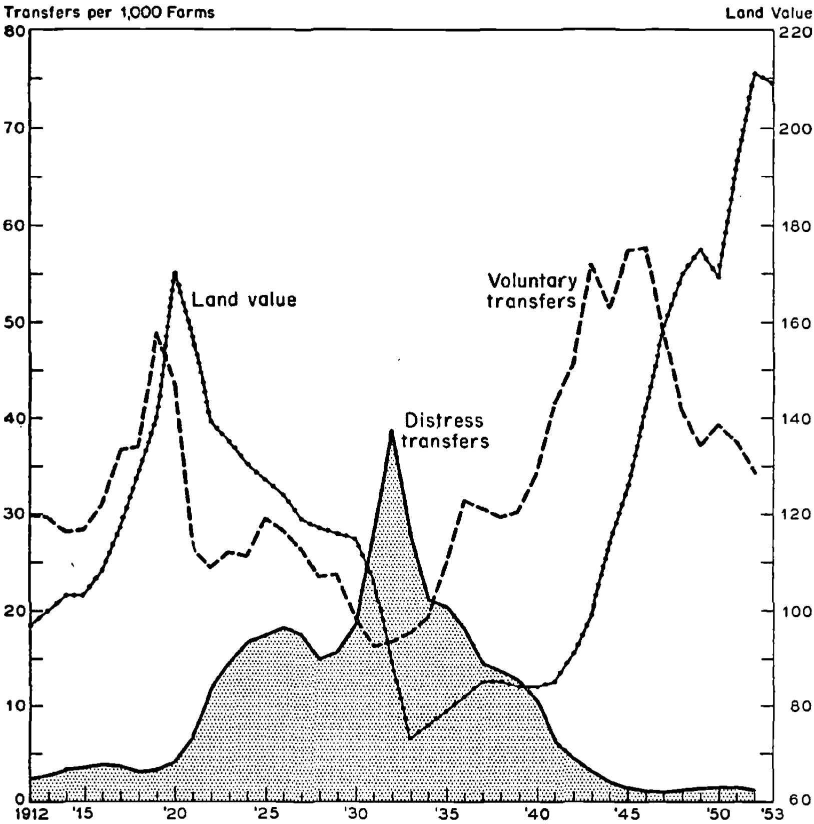
Around the turn of the century agriculture again entered a prosperous period. Developments in the two decades of prosperity up to 1920 laid the groundwork for much of the farm mortgage distress occurring between 1920 and 1940—the period with which our investigation is chiefly concerned.

Prices of farm commodities rose steadily from their low point shortly before 1900 and by 1910 had nearly doubled. Between 1900 and 1910 the average value of farm real estate per acre doubled. Increases of 300 percent and more occurred in many counties in western Texas, the Great Plains, and the Mountain region. In those areas much new land had been brought under farming, including substantial acreages under irrigation. In the northeastern part of the nation land value increases were relatively small.

From 1910 until World War I agricultural prices were relatively stable. During the war they increased rapidly and by early 1920 were more than two and one-half times their average for the prewar years (1910-14). Farm land values, whose movements for the country as a whole are shown in Figure 2, also increased, until at the peak in 1920 they were 73 percent above their prewar level. Although land value increases were general, they were largest, percentagewise, in the Southeast and in the northwestern part of the Corn Belt, and smallest in the northeastern states. Regional differences in the rise of land values for the entire decade 1910-20 are shown in Figure 3.

The war years, and especially the postwar years 1919 and 1920, were characterized by a very active and speculative farm real estate market. Foreclosures and forced transfers were relatively few. Profits were often invested in more land, livestock, and equipment. The feeling was widespread that prosperity would continue indefinitely. Many of the areas that were most pros-

Figure 2. Distress Transfers, Voluntary Transfers, and Value of Farm Real Estate per Acre, 1912-53

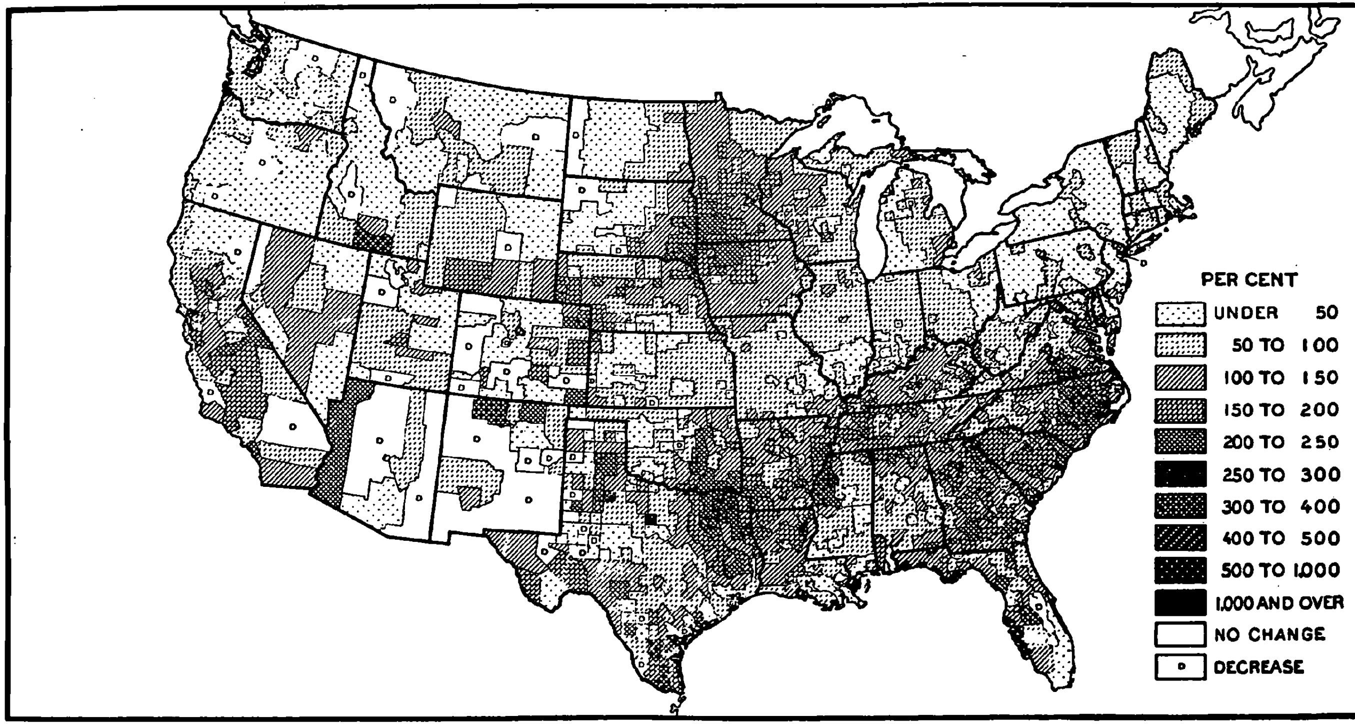


Adapted from a chart supplied by the Bureau of Agricultural Economics. Land value indexes (1912-14 = 100) refer to value of land and buildings as of March 1; transfer data refer to transactions from March 16 through March 15 of the following year. Distress transfers include assignments to avoid foreclosure, as well as foreclosures.

perous and in which land speculation was greatest during this period were to suffer the most severe distress in the subsequent farm depression.

Credit to finance both agricultural and industrial expansion was plentiful during World War I. Between 1915 and 1920 more than 3,000 new banks were organized, most of them in

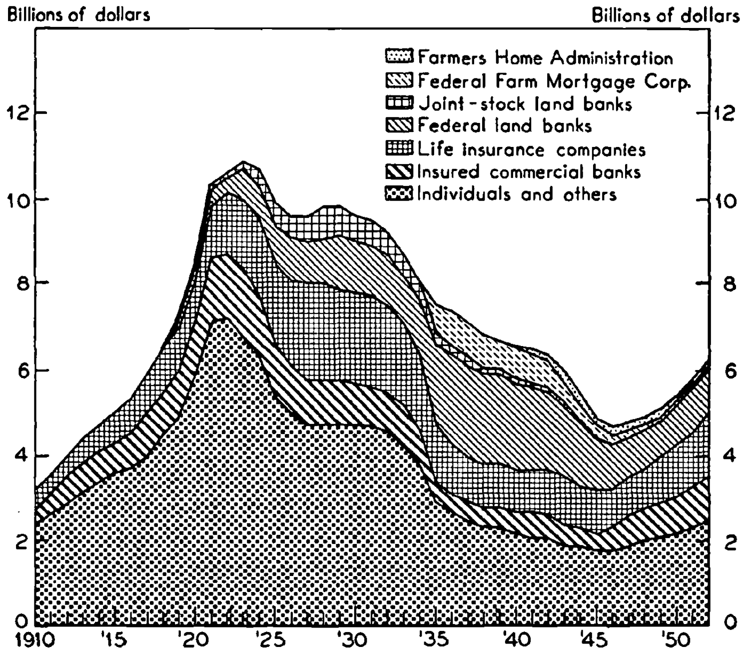
Figure 3. Increase in Value of Farm Real Estate per Acre, 1910-20



Map supplied by U.S. Department of Agriculture.
Based on census data for value of farm land and buildings as of April 15, 1910 and January 1, 1920.

the Midwest. Farm debt rose rapidly. Mortgages increased from about $3 billion in 1910 to $5 billion at the end of 1916 (Figure 4). By the end of 1920, farm mortgage loans had passed the $10 billion mark, which was twice the level of 1916 and over three times that of 1910. Non-real-estate farm loans of commercial banks also increased, rising from $1.6 billion at the beginning of 1915 to a peak of $3.9 billion at the end of 1920.[4] This

Figure 4. Farm Mortgage Debt Held by Major Lender Groups, 1910-52



January figures. Data for 1910-30 are from **Farm-Mortgage Credit Facilities in the United States**, by Donald C. Horton, Harald C. Larsen, and Norman J. Wall (USDA, 1942, p. 12); for 1931-34, from **Agricultural Statistics, 1948** (USDA); for 1935-52, from **Agricultural Finance Review** (BAE), Vol. 14, Supplement May 1952 (p. 2).

rapid growth of debt resulted partly from the need to meet higher operating costs, to acquire new equipment and additional livestock, and to expand acreage, but above all it arose from the purchase of farms in a rising land market. The Southeast and some areas of the West, particularly the Mountain states, showed the greatest rise in farm mortgage debt,[5] and in

[4] *Agricultural Finance Review* (Bureau of Agricultural Economics), Vol. 14, Supplement May 1952, Table 19, p. 27.

[5] *Ibid.*, Vol. 2, November 1939, Table 6, pp. 90 ff.

those regions land values also increased greatly.[6] In the Northeast, where the farm real estate market was relatively inactive, the rise in mortgage debt was comparatively small.[7]

One important characteristic of the wartime mortgage debt expansion was the sharp increase in the average size of new farm mortgages recorded. In 1917, the first year for which estimates are available, the average new mortgage loan amounted to $2,640. In 1918 and 1919 the averages were $2,880 and $3,460, respectively. In 1920 the average new farm mortgage loan amounted to $4,270.[8] The increasing size of mortgage loans meant in many instances an increase in the ratio of debt to value, even at the higher level of farm land prices. The census reported that for owner-operated mortgaged farms in 1910 the debt amounted to 27.3 percent of the value; by 1920 the debt was 29.1 percent of value.[9] Not only did the period give rise to larger loans, both in average size and relative to value, but the proportion of mortgaged farms went up. The census reported that 41.1 percent of all owner-operated farms were mortgaged in 1920, an increase from 33.6 percent in 1910.[10]

The Interwar Period

The agricultural depression of the interwar period began with a spectacular collapse of agricultural prices in mid-1920. In May of that year the index of farm prices reached 237 (1910-1914 = 100). By June of the following year the index had dropped to 111. On the cost side, prices paid by farmers for commodities used in production (including interest, taxes, and wages) also dropped, but much less sharply, from an annual average of 214 in 1920 to 155 in 1921.[11] The change in price relationships was in itself sufficient to produce a drastic shrinking of net farm incomes; and the situation was aggravated by droughts in several of the northwestern states. Naturally, the enormously expanded debt structure of agriculture was particularly vulnerable to such a shock. Credit began to tighten and many loans were called,

[6] M. M. Regan and A. R. Johnson, *The Farm Real Estate Situation, 1945-46* (U.S. Department of Agriculture, Circular No. 754), pp. 6 f.

[7] *Agricultural Finance Review*, Vol. 2, November 1939, Table 6, pp. 90 ff.

[8] *Average Size of Farm-Mortgage Recordings of Selected Lender Groups* (Bureau of Agricultural Economics, mimeo., November 1940), p. 3.

[9] 16th Census: 1940, *Agriculture*, Vol. 3, Table 6, p. 251.

[10] *Agricultural Finance Review*, Vol. 10, November 1947, Table 1, p. 63.

[11] Indexes of prices received and paid by farmers are the revised series of the Bureau of Agricultural Economics with January 1910 through December 1914 as the base period, from *Agricultural Outlook Charts, 1953* (October 1952), page 9.

beginning with short-term obligations. Many farmers were forced out of business, and others borrowed on their remaining real estate equity to repay their short-term loans. Refunding was largely responsible for the continued rise in farm mortgage debt, which reached its peak in 1923 (Figure 4).

Although by 1923 agricultural prices had made a substantial recovery from the low point reached in 1921, the recovery was not sufficient to restore price-cost relationships to the favorable wartime level. Largely as a result, realized net income of farm operators averaged 30 percent lower during the years 1923-29 than during 1919-20.[12] Throughout most of the twenties land values declined, reflecting adjustments to the lower level of farm incomes. These declines eliminated the equity of many farmers and often resulted in losses to lenders when foreclosure was necessary. Distress transfers (foreclosures, and assignments to avoid foreclosure) increased steadily after 1920. In that year they had occurred at the rate of 4 per thousand farms; by 1926 the rate of distress transfers was over 18 per thousand farms (Figure 2).

Banking operations are another indicator of economic conditions. Deposit withdrawals and the freezing of funds in unpaid loans were more severe in rural than in industrial areas. From 1921 through 1929, 5,411 state and national banks suspended operations; this was 18 percent of the number of banks active in 1921.[13] Of the suspended banks 92 percent were in small cities and villages of less than 10,000 population. Bank closings were particularly heavy in the Southeast, the Great Plains, and the Mountain states—predominantly farming regions. In the industrialized East and Northeast very few banks closed.[14]

After difficulties in the twenties, agriculture faced catastrophe in the early thirties. Prices of farm products dropped from the onset of the depression in 1929 until by 1932 they were less than half their 1929 average and were below the prewar prices of 1910-14.[15] Realized net income of farm operators, which had reached $9.3 billion in 1919 and averaged $5.7 billion during

[12] *The Farm Income Situation* (Bureau of Agricultural Economics), December 1952–January 1953, Table 1, p. 4.

[13] *Banking and Monetary Statistics* (Board of Governors of the Federal Reserve System, 1943), pp. 19 and 283.

[14] *Ibid.*, p. 284.

[15] *Agricultural Outlook Charts, 1953* (Bureau of Agricultural Economics, October 1952), p. 9.

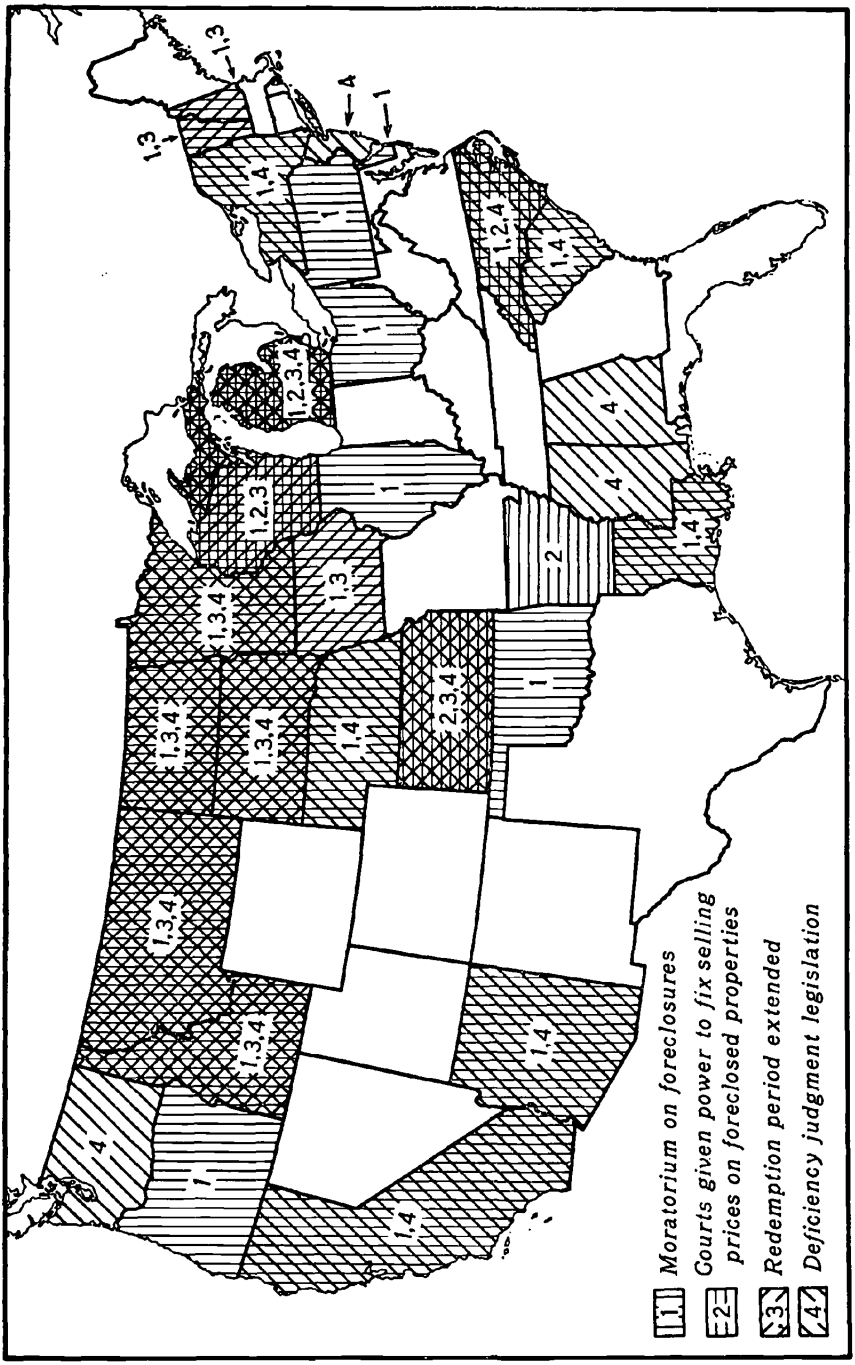
the years 1923-29, was estimated at only $1.9 billion for 1932.[16] Farmers found it difficult or impossible to pay debts contracted at higher income levels. Many loans were foreclosed and many others were refinanced by federal agencies. For agriculture as a whole, foreclosures and assignments to creditors rose from 15.7 per thousand farms in 1929 to 38.8 per thousand in 1932. Thereafter the rate of distress transfers slowly declined, but remained throughout the thirties well above the low level existing before and during World War I, and did not subside that far until 1942 (Figure 2).

In the early thirties economic conditions were so serious that several states passed laws that prohibited foreclosure, extended redemption periods, and eliminated deficiency judgments (Figure 5). Among the measures taken by the federal government were appropriation of additional funds for emergency crop and feed loans, establishment of regional agricultural credit corporations, bolstering the federal land banks with additional government capital, and the reorganization of the Federal Farm Loan System. Under the Farm Credit Act of 1933, direct government mortgage loans were provided for many farmers who did not qualify for regular federal land bank loans.

Out of the troubled thirties developed a different economic and social philosophy involving more direct and comprehensive action by the federal government in combating deflation. In addition to the extensive pump priming expenditures there were devaluation of the dollar, new banking legislation, and revised tariff laws—all devices intended to activate and strengthen the economy as a whole. For agriculture, the new legislation introduced acreage restrictions, marketing quotas, marketing agreements, price support loans, government purchases of commodities, parity payments, and the food stamp plan. These measures were intended to raise prices of farm products. There were also special programs aimed at improving the lot of the lower-income farmers and assisting tenants to become farm owners. In the last half of the decade realized net income of farm operators showed some improvement, averaging between $4 and $5 billion a year, more than doubling the low of $1.9 billion in 1932. Nevertheless, it was below the $5 to $6 billion level of the late twenties and substantially below the $9.3 billion peak of 1919.[17]

[16] *The Farm Income Situation*, December 1952–January 1953, Table 1, p. 4.
[17] *Ibid.*

Figure 5. State Mortgage Relief Legislation, 1930-36



Map supplied by U.S. Department of Agriculture, Bureau of Agricultural Economics.
Numbers in states refer to kinds of mortgage relief legislation enacted between January 1, 1930 and April 20, 1936.

World War II and the Early Postwar Years

Agricultural prosperity increased rapidly during World War II. By 1945 the level of agricultural prices was twice as high as that of 1940 (Table 1). Agricultural production, stimulated by high prices and favorable weather, was at record volume. Production costs were increasing, but not so fast as farm prices. Realized net income of farm operators rose sharply and for 1945 totaled $12.3 billion, almost three times the 1940 amount.[18]

TABLE 1

Index Numbers of Prices Received by Farmers, Prices Paid, Farm Production, and Realized Net Income of Farm Operators, 1940-52

(1940 = 100)

Year	*Prices received by farmers*	*Prices paid by farmers*[a]	*Farm production*	*Realized net income of farm operators*
1940	100	100	100	100
1941	123	106	103	141
1942	158	122	113	206
1943	192	137	117	268
1944	196	147	125	279
1945	206	152	122	286
1946	234	167	124	330
1947	275	193	123	390
1948	285	209	125	363
1949	249	202	125	316
1950	256	206	123	287
1951	302	227	127	333
1952	288[b]	231[b]	132	333[b]

Based on Bureau of Agricultural Economics indexes. For prices received and paid by farmers, see *Agricultural Outlook Charts, 1953* (October 1952), page 9, and *Agricultural Prices*, December 1952, page 27. For farm production and realized net income, see *The Farm Income Situation*, July-September 1951, page 5, and December 1952–January 1953, Tables 1 and 11, pages 4 and 16.

[a] Includes prices of commodities, interest, taxes, and wages.

[b] Preliminary.

After the end of the war in 1945, inflation continued in all segments of the economy. Agricultural prices continued to rise and the total realized net income of farm operators in the

18 *Ibid.*

United States reached an all-time high of $16.8 billion in 1947. From then until the Korean outbreak the ratio of prices received by farmers to prices paid became less favorable, and net income of farm operators by 1949 had declined to $13.6 billion. Although agricultural prices increased during the last half of 1950, net income for the year declined further to $12.3 billion. Primarily as a result of increased defense activity, net income rose to $14.3 billion in 1951 and remained at that level for 1952.

Naturally, the long period of wartime prosperity had a pronounced effect on the financial position of agriculture. The *Balance Sheet of Agriculture*, prepared by the Bureau of Agricultural Economics, valued total assets of agriculture as of January 1, 1952 at $168.7 billion, more than three times the comparable figure, $53.7 billion, for 1940 (Table 2). As of January 1953 farm assets have been tentatively estimated at about $165 billion. Much of the increase in the values of real

TABLE 2

Balance Sheet of Agriculture, 1940 to 1953

(in billions)

	1940	*1946*	*1950*	*1952*	*1953*[a]
Assets					
Real estate	$33.6	$61.8	$75.3	$93.7	$92.3
Livestock, equipment, crops	15.1	27.1	41.2	53.8	51.2
Financial assets[b]	5.0	18.3	20.2	21.2	21.9
Total	$53.7	$107.2	$136.7	$168.7	$165.4
Liabilities					
Real estate debt	$6.6	$4.8	$5.6	$6.6	$7.1
Commodity Credit Corp., nonrecourse loans	.4	.3	1.7	.6	1.2
Other non-real-estate debt	3.0	2.9	5.2	7.3	7.6
Proprietors' equities	43.7	99.2	124.2	154.2	149.5
Total	$53.7	$107.2	$136.7	$168.7	$165.4

From *The Balance Sheet of Agriculture, 1953* (Bureau of Agricultural Economics, September 1953), page 2. Amounts are given as of January 1.

[a] Preliminary.

[b] Includes deposits and currency, United States savings bonds, and investment in cooperatives.

estate, livestock, and crops resulted from the wartime rise in market prices rather than from an increase in actual physical assets. Physical assets in machinery, however, increased substantially; even after adjustment for price changes, the total value of equipment in 1953 was more than double the 1940 figure. And, of course, the increase in financial assets from $5.0 to $21.9 billion reflected actual dollar additions to total assets.

One outstanding feature of the war years, so far as the financial position of agriculture is concerned, has been the behavior of total farm mortgage debt in the United States. Credit was plentiful during and after World War II, with keen competition among lenders. Sales of farm land reached record volume, and there were signs of speculative activity in numerous resales following brief ownership. Farm real estate values rose steadily. By early 1946 the average value per acre was about 71 percent above the average for 1940. At the beginning of 1953 the average value was 154 percent above that of 1940 and 20 percent above the highest level of the World War I boom (Table 3 and Figure 2). Despite these developments, total farm mortgage debt declined from $6.6 billion as of January 1, 1940 to a low of $4.8 billion for 1946 (Table 4). Thereafter it increased to $7.1 billion for 1953. This is in sharp contrast with developments during and after World War I, when farm mortgage debt increased steadily from $5.0 billion in 1915 to a high of $10.8 billion in 1923 (Figure 4). Non-real-estate debt, however, reached a new high level after World War II. The volume of such debt owed to the principal lending institutions on January 1, 1953 was $4.2 billion, which compares with a previous record of $3.9 billion in 1921.[19]

As would be expected, distress transfers of farms decreased steadily as the financial position of agriculture improved. During 1939 distress transfers occurred at a rate of 12.6 per thousand farms in the United States; during each of the years 1945-52 the rate was less than 2 per thousand farms (Figure 2). This is the lowest level for such transfers during the period for which estimates are available, which extends back to 1912. It contrasts sharply with the peak of 38.8 distress transfers per thousand farms reached in 1932 and a yearly average of about 17 per thousand farms during the two decades from 1920 to 1940.

[19] *Agricultural Finance Review*, Vol. 15, Supplement May 1953, Table 23, p. 32.

TABLE 3

Index Numbers of Farm Real Estate Values per Acre, 1940, 1946, and 1953

(1912-14 = 100)

Region and state	1940	1946	1953	Increase 1940-53
The Northeast				
Maine	95	127	137	44%
New Hampshire	94	122	152	62
Vermont	101	144	196	94
Massachusetts	113	141	171	51
Rhode Island	120	159	203	69
Connecticut	124	166	213	72
New York	86	120	175	103
New Jersey	116	164	233	101
Pennsylvania	90	130	199	121
Appalachian states				
Delaware	89	136	199	124
Maryland	100	164	254	154
Virginia	112	200	310	177
West Virginia	85	122	165	94
North Carolina	138	265	446	223
Kentucky	113	219	330	192
Tennessee	108	212	321	197
Cotton Belt states				
South Carolina	89	172	249	180
Georgia	82	146	235	187
Alabama	122	205	337	176
Mississippi	106	195	320	202
Arkansas	95	178	302	218
Louisiana	121	175	264	118
Oklahoma	93	154	250	169
Texas	99	151	230	132
Florida	133	268	286	115
Corn Belt states				
Ohio	77	140	223	190
Indiana	74	145	232	214
Illinois	75	124	210	180
Iowa	74	121	188	154
Missouri	59	102	154	161

Region and state	*1940*	*1946*	*1953*	*Increase 1940-53*
Lake states				
Michigan	91	167	249	174%
Wisconsin	84	120	172	105
Minnesota	86	129	207	141
Great Plains and Mountain states				
North Dakota	52	84	146	181
South Dakota	41	66	122	198
Nebraska	58	96	169	191
Kansas	71	121	211	197
Montana	57	106	143	151
Idaho	93	166	172	85
Wyoming	74	148	223	201
Colorado	62	124	156	152
New Mexico	95	203	287	202
Arizona	107	209	281	163
Utah	74	113	132	78
Nevada	65	118	139	114
Pacific Coast states				
Washington	71	126	135	90
Oregon	73	125	130	78
California	106	222	209	97
United States	82	140	208	154

From *The Farm Real Estate Market* (Bureau of Agricultural Economics), July 1953, pages 22 f.; data as of March 1. Data for 1946 are from a September 1953 release by the BAE.

Financial Position of Agriculture, 1953

While total farm debt had increased nearly 100 percent by early 1953 from the low point reached in 1946, the amount of the debt was still less than 10 percent of the estimated value of total assets. As of January 1, 1953 the financial assets of farmers (deposits and currency, United States savings bonds, and investment in cooperatives) were estimated at more than one and one-third times the total of farm debt, whereas in 1940 such

TABLE 4

Farm Mortgage Debt, 1940, 1946, and 1953, and Non-real-estate Debt, 1943 and 1953

(dollar figures in millions)

Region and state	Total farm mortgage debt[a] 1940	1946	1953	Change 1940-53[b]	Non-real-estate debt[c] 1943	1953	Change 1943-53[b]
The Northeast							
Maine	$24.8	$17.1	$22.6	—9%	$9.0	$18.2	102%
New Hampshire	11.2	10.6	21.5	91	2.1	4.3	106
Vermont	27.8	23.2	38.3	38	5.8	17.8	207
Massachusetts	45.8	35.0	47.1	3	2.9	8.4	184
Rhode Island	4.1	3.6	5.0	21	1.0	1.6	141
Connecticut	36.7	25.3	34.4	—6	3.3	10.7	226
New York	191.8	145.1	204.3	7	33.4	102.2	206
New Jersey	48.8	39.2	73.1	50	6.7	17.1	157
Pennsylvania	131.6	104.7	172.5	31	23.7	78.4	230
Appalachian states							
Delaware	8.0	6.0	11.3	42	1.6	5.3	228
Maryland[d]	46.7	39.6	70.7	51	6.4	22.3	249
Virginia	72.3	60.9	99.1	37	19.6	47.9	144
West Virginia	22.0	18.0	31.2	42	6.2	11.7	87
North Carolina	90.1	78.1	139.8	55	16.3	40.3	147
Kentucky	109.3	79.4	135.8	24	25.1	73.5	192
Tennessee	92.6	66.5	112.8	22	21.4	65.5	206
Cotton Belt states							
South Carolina	45.9	37.4	56.0	22	17.2	24.7	43
Georgia	82.0	69.4	133.2	62	35.8	61.8	72
Alabama	81.9	66.2	101.8	24	33.3	52.4	57
Mississippi	100.4	85.8	136.0	35	43.9	81.6	86
Arkansas	72.5	66.0	116.6	61	32.4	72.9	125
Louisiana	55.1	48.3	70.7	28	23.3	43.1	85
Oklahoma	153.7	108.0	157.1	2	50.8	125.3	147
Texas	431.7	313.7	525.9	22	155.4	385.9	148
Florida	38.1	30.9	113.5	198	17.2	45.5	165
Corn Belt states							
Ohio	239.1	167.2	289.4	21	39.0	109.2	180
Indiana	236.3	168.5	250.6	6	35.8	106.9	198
Illinois	419.0	251.6	316.4	—24	72.7	246.5	239
Iowa	705.6	476.2	521.0	—26	110.5	317.0	187
Missouri	229.4	184.1	220.2	—4	71.8	188.7	163

TABLE 4 (Concluded)

Region and state	Total farm mortgage debt[a] 1940	1946	1953	Change 1940-53[b]	Non-real-estate debt[c] 1943	1953	Change 1943-53[b]
Lake states							
Michigan	$174.3	$139.4	$191.4	10%	$25.9	$82.5	218%
Wisconsin	356.9	245.7	326.6	—8	35.3	104.1	195
Minnesota	376.0	286.8	316.4	—16	73.3	178.0	143
Great Plains and Mountain states							
North Dakota	141.2	83.0	74.0	—48	61.5	58.1	—5
South Dakota	127.7	99.4	106.0	—17	70.7	93.3	32
Nebraska	309.8	181.9	186.8	—40	84.1	205.0	144
Kansas	284.2	151.5	183.7	—35	88.0	200.7	128
Montana	66.1	41.7	86.8	31	37.2	65.7	77
Idaho	78.8	56.2	107.9	37	19.5	60.8	211
Wyoming	34.0	24.3	53.9	58	22.0	43.5	98
Colorado	75.0	60.9	151.5	102	52.7	160.8	205
New Mexico	27.5	26.5	69.0	151	15.7	41.2	163
Arizona	28.9	23.0	49.7	72	12.2	62.3	410
Utah	36.6	26.2	52.5	43	17.1	44.7	162
Nevada	10.2	6.9	17.7	74	3.5	12.7	264
Pacific Coast states							
Washington	106.9	76.9	149.7	40	22.0	53.5	143
Oregon	90.4	71.6	155.4	72	14.6	58.7	303
California	407.6	333.0	633.6	55	93.6	313.0	234
United States	$6,586.4	$4,760.5	$7,140.5	8%	$1,672.5	$4,225.3	153%

Figures are given as of January 1.

[a] Data for 1940 are from Harold T. Lingard's *Farm-Mortgage Loans and Their Distribution by Lender Groups, 1940-48* (U.S. Department of Agriculture, Circular 812, August 1949), Table 30, page 49; data for 1946 and 1953 are from *Agricultural Finance Review* (Bureau of Agricultural Economics), Vol. 15, Supplement May 1953, pages 20 and 27.

[b] Percentage changes were calculated before rounding debt figures to the nearest 0.1 million.

[c] Non-real-estate debt includes that part held by banks and federal and federally sponsored agencies and excludes price support loans made or guaranteed by the Commodity Credit Corporation. Data for 1943 were supplied by the Federal Deposit Insurance Corporation, the Farm Credit Administration, and the Farmers Home Administration; data for 1953 are from *Agricultural Finance Review*, Vol. 15, Supplement May 1953, page 33.

[d] Includes District of Columbia.

items had amounted to only one-half the farm debt (Table 2). Farm debt increased further during 1953 but continued low in relation to the amount of assets owned by farmers.

Despite a relatively low total farm debt in the United States, however, substantial numbers of individual farmers are heavily indebted. In each year from March 1947 to March 1953 more than half of all farm sales involved credit financing.[20] In these credit sales as a whole the debt has averaged more than half the purchase price, and in a fifth of them it has amounted to 75 percent or more of the purchase price. The average size of new farm mortgage loans recorded in 1952 was $5,630, which compares with $2,370 in 1940.[21] No doubt many of the recent loans have been for amounts exceeding the prewar value of the farm.

Non-real-estate or short-term loans are another important part of the current farm debt picture. Such debt, excluding nonrecourse price support loans, increased from $2.9 to $7.6 billion between 1946 and 1953 to exceed the total farm real estate debt (Table 2). In periods of declining farm income, short-term loans are often the first to be called and become a direct source of financial distress. If they cannot be repaid, they are likely to be refunded into long-term mortgages, as frequently happened in the early twenties. Accordingly, if farm incomes should decline in the years ahead, short-term debt might require considerable refunding and in that way it could swell the outstanding volume of long-term credit.

As this is being written, in the fall of 1953, general economic activity remains high. But prices received by farmers for several important commodities have declined substantially from 1952 levels, and farm costs have decreased relatively little. Price-cost relationships are expected to continue less favorable in 1954, and the decline in agricultural prices currently is a subject of considerable concern to farm lenders. In some areas farmers are not repaying loans as quickly as expected and a few short-term loans have been refinanced with long-term farm mortgage loans. While the volume of actual debt distress is believed to be very small, the attitudes of both farmer and lender toward credit have become more cautious in recent months.

20 *The Farm Real Estate Market* (Bureau of Agricultural Economics), July 1951, p. 7, and July 1953, pp. 13 f.

21 *Farm Mortgages Recorded, 1944* (Farm Credit Administration), Table 10, p. 14; and *The Balance Sheet of Agriculture, 1953* (Bureau of Agricultural Economics, Agr. Inf. Bul. No. 115), p. 23.

Scope of the Study

The chapters that follow offer an analytical review of farm mortgage distress in the United States mainly during the interwar period. Extension of the analysis to earlier periods was virtually prohibited by the extreme sketchiness of the data prior to 1920. During World War II and the subsequent years there have been very few foreclosures or signs of farm financial distress. For that period the discussion will merely touch on the development of conditions that might lead to future distress.

The introductory historical survey has dealt with trends of prices and farm prosperity mainly for agriculture as a whole. The over-all trends, of course, result from conditions in highly disparate segments of the farm economy. Farm incomes were far from uniformly depressed during the years 1920-40. In some parts of the country a combination of low prices for the principal products and crop failures due to bad weather or other production hazards created serious financial distress. Some other areas encountered comparatively little difficulty. And even within relatively small type-of-farming areas there were substantial variations in individual farm incomes and financial distress. Hereafter attention will be concentrated for the most part on these variations in farm mortgage distress—both among geographical areas and among individual farms.

Anyone familiar with agriculture is well aware that the factors associated with success and failure are many and varied. Some are based on the physical characteristics of a region and the economic characteristics of its principal products. Others are closely related to the individual farmer and his farm—local soil conditions, size and organization of the farm business, extent of debt, and the capabilities of the farmer and his family. It has seemed desirable, therefore, from the standpoints of both analysis and presentation to divide the book into two parts, the first entitled "The Economic Geography of Farm Mortgage Distress," and the second, "Farm Mortgage Distress and Individual Farm Organization."

In Part I, which is concerned with geographical variations, the first task is to locate the conspicuous mortgage trouble spots of the interwar period as well as the principal areas where mortgage experience was substantially better than average. This is done mainly through maps showing state and county differences in the rate of distress transfers of farms and in the loan experience of land banks and insurance companies, with correlative information on land values, bank deposits, and other pertinent factors. Still more important than the location of the mortgage trouble spots is the identification of the basic economic and climatological factors that appear responsible. Most of Part I is devoted to analyzing causes of mortgage distress in such major farming areas as the Corn Belt, the Cotton Belt, and the Great Plains.

Part II deals with variations among individual farm businesses within a single region or type-of-farming area and their relation to differences in debt carrying capacity and mortgage experience. Principal consideration is given to physical variations that affect farm productivity, and to financial variations in the organization of the farm business.