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BUSINESS CONDITIONS

A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

The Feed Crop Situation

Corn Is the Big Question

The climate and soil of much of the Seventh Federal Reserve District are exceptionally well adapted for corn production. To the agriculture of this region "corn is king." Nearly two-fifths of the harvested acreage of crops in the Seventh District states was devoted to the production of corn during the decade, 1935-44. For Indiana, Illinois, and Iowa, corn accounted for nearly one-half of the harvested acreage of crops; for Michigan and Wisconsin, about one-fifth and one-fourth, respectively, of the crop acreage was in corn. The corn crop is vital to not only Midwest farmers but to consumers, industry, and farmers in other regions as well.

LIVESTOCK DEPENDENT ON CORN

Most corn is fed to livestock, over 75 per cent of the crop normally being fed on the farms where the corn is grown. Sales to other farmers and to manufacturers vary significantly from year-to-year but averaged 20 per cent of total production from 1936 to 1945. Minor quantities are used in the farm households and for seed. During recent years, corn has provided about 70 per cent of the total tonnage of important feed grains. A small crop this year would necessitate reduced production of meats and other livestock products during the following year. Fewer hogs would be produced, and those would be marketed at lighter weights; more cattle would go directly from range and pasture to slaughterers with fewer of them stopping in Corn Belt feed-lots for the usual increase in weight and improvement in quality before slaughter; the flow of milk and eggs might be reduced; and our capacity to supply food to peoples in other countries would be curtailed. Thus, there is general interest in the United States corn crop at this critical time.

CLIMATE AFFECTS CORN YIELD

Since corn is a warm weather plant requiring high temperatures both day and night during the growing season, the region of greatest production in the United States has a mean summer temperature of 70 to 80 degrees and a mean night temperature exceeding 58 degrees. Of importance also is the frost-free period which exceeds 140 days in the heart of the Corn Belt.

Many people have assumed that hot weather in August, after the corn has silked, hastens maturity. However, if corn is to be hurried along by favorable weather, it appears that the hurrying must occur during the early growth period prior to the appearance of silks and tassels. Shortly after the emergence of silks and tassels, pollination occurs. The period from pollination to dented ears appears to be fixed by biological factors and affected little by the weather.

Iowa studies indicate that it takes corn 51 days following

the appearance of silks to reach the dent stage. Once corn is dented, it is sufficiently matured so a killing frost will not seriously damage it. Although ideal corn weather during the growing period from silks to dented kernels has an important effect on yield per acre and the quality of corn produced, it apparently does not affect the rate of maturity of corn.

This year the cold wet spring delayed planting and caused slow growth of corn during much of the early growth period when good weather could have hurried the crop along. There is grave concern now as to the possibilities for exceptionally good weather to facilitate vigorous growth of the crop, also, as to the possibilities for the first killing frost this fall being delayed until the corn has matured. Corn killed by frost before it has matured means "soft corn"—immature corn of high moisture content—that may heat and decay when stored and has reduced value for feeding and industrial uses.

If the corn is not dry enough for safe storage and cannot be dried adequately by natural or artificial means, it must be used up rapidly during the cool fall and winter months following harvest. The supply of livestock cannot be increased significantly on short notice. However, the available number of hogs and cattle can be fed to heavier weights before slaughter thereby utilizing more corn immediately following harvest but at the expense of sustained supplies of animal products during the ensuing year. Of course, there is some soft corn every year, but it usually accounts for only a small part of the crop. The problem was particularly serious in 1915, 1917, 1924, 1935, and 1945, all years when temperatures during May and June averaged well below normal. In several of these years, higher than normal rainfall during May and June accompanied the below normal temperatures. These conditions of high rainfall and sub-normal temperatures were experienced over much of the Corn Belt during May and June this year.

Historical relationships between corn yields and various climatic factors indicate that no single factor satisfactorily explains the variations in corn yield over a period of years. Warm weather in September and usually in April, May, or early June frequently has been accompanied by high yields. In Missouri higher than normal temperatures in July and August have resulted in low yields. In South Dakota and Kansas large yields have been associated with higher than normal relative humidity. For optimum growth and grain production corn requires a plentiful supply of moisture throughout the growing season. Maximum moisture is required during silking and tasseling. Corn plants transpire the equivalent of two to four acre-inches of water per ton of dry matter produced. Half or more of the total water used by corn is required in about a five-week period after the plants develop their maximum leaf area.

(Continued on Inside Back Cover)

Iowa State Finance—I

State Tax Revenues 1920-47

In 1920, Iowa state tax revenues were 17 million dollars; in the fiscal year just ended, they will approximate 119 million dollars. A sevenfold increase in a quarter of a century is not as spectacular as it first appears if recognition is given to the fact that in this period the income of Iowa citizens increased between two and three times, and the State assumed a major financial responsibility for two new and costly government functions—highways and social security.

From another viewpoint, the expansion in state revenues is even more remarkable since it was accomplished by a nearly complete transformation of the state's tax system—the abandonment of the property tax which constituted 46 per cent of state revenue in 1920 and the addition of sales, payroll, and income taxes which became the major sources of income in the 1930's. The present Iowa tax system embodies all of the important taxes used by the states today. It is capable, merely by changes in tax rates and relatively

minor substantive revision of existing tax statutes, of supporting any likely level of state services and aids to local government.

CLASSIFICATION OF STATE TAXES

Who pays the taxes for the support of state government in Iowa? How is this tax burden distributed among income classes and occupational groups? How does it affect business and agriculture? As important as these questions are from the standpoint of public policy and citizen concern, straightforward and conclusive answers are impossible. To some extent the taxes imposed by the State are not borne by the taxpayers who pay them initially; they are shifted in varying proportions to other groups within or outside of the state. Moreover, the determination of tax incidence requires a detailed knowledge of the consumption and expenditure habits of the population. Even in an area with a population as homogeneous as that of Iowa there will be significant differences in scales of living and in patterns of expenditure.

A possible approach to the analysis of tax payments is to consider how state taxes affect arbitrarily selected taxpayers. For example, the food, clothing, amusement, utility service, and capital equipment budgets of a family or individual are subject to the two per cent sales tax. Cigarette smokers pay 7 to 15 dollars annually in addition, and typical consumers of beer and other alcoholic beverages a roughly similar amount. Motor car owners' average contribution in the form of license fees and gasoline tax would approximate another 40 to 50 dollars. Those income classes affected by the personal income tax would pay an additional tax on net receipts in excess of personal exemptions at a rate of something less than five per cent.

In the accompanying tables another method of analysis is presented. The various elements in the state tax system are classified into groups which affect business, consumption, and the expendable income of individuals. Thus, Iowa makes relatively minor use of general business taxes. The state corporation taxes including the net income tax amount to only 2.3 million dollars annually (see Table 3). This is slightly less (15 per cent) than the total collected from insurance companies, the only special business which makes a substantial contribution to state revenues. Business also pays a substantial portion of the property tax which in past years has been an important state revenue. This is the only tax applicable to unincorporated business.

Iowa has turned more and more to consumption taxes:

THIS MONTH'S COVER

Iowa State Capitol in Des Moines

TABLE 1
CLASSIFICATION OF IOWA STATE TAX REVENUES
1920-47
FISCAL YEARS ENDING JUNE 30
(In millions of dollars)

Fiscal Year	Total ¹	Personal ²	Business & Corporations ³	Sales ⁴	Highway Users ⁵	Property ⁶	Payroll
1920	17.0	.6	1.5	—	7.1	7.8	—
1921	18.0	.7	1.7	—	7.7	7.9	—
1922	19.9	.7	1.8	.6	7.8	9.0	—
1923	23.4	.9	1.8	.6	8.7	11.4	—
1924	24.9	1.0	1.8	.7	8.8	12.6	—
1925	27.0	1.0	2.0	.8	10.0	13.2	—
1926	30.8	1.1	2.2	.8	14.4	12.3	—
1927	30.6	1.1	2.1	.9	15.6	10.9	—
1928	33.1	1.2	2.3	1.1	18.4	10.1	—
1929	34.1	1.1	2.3	1.3	19.7	9.7	—
1930	38.8	1.2	2.7	1.4	22.9	10.6	—
1931	39.2	1.0	2.6	1.4	22.6	11.6	—
1932	36.8	.8	2.6	1.2	22.3	9.9	—
1933	31.2	.9	2.2	1.2	19.3	7.6	—
1934	33.8	.9	2.0	1.9	20.3	8.7	—
1935	46.6	5.5	2.5	14.7	20.8	3.1	—
1936	54.7	5.8	3.1	16.7	22.8	6.3	—
1937	67.7	5.9	3.7	19.7	24.4	10.4	3.6
1938	70.9	5.4	3.6	20.6	25.5	9.6	6.2
1939	72.1	5.3	3.4	21.3	26.1	7.9	8.1
1940	74.1	5.2	3.8	23.4	26.7	7.1	7.9
1941	77.6	6.4	3.8	25.3	28.5	5.8	7.8
1942	84.2	8.7	3.8	30.0	28.2	4.3	9.2
1943	75.6	8.5	3.9	28.9	24.2	1.9	8.2
1944	78.9	8.3	4.3	31.3	23.5	.1	11.4
1945 ⁷	83.0	9.2	4.1	34.2	22.8	.1	12.6
1946 ⁷	94.1	8.8	4.7	39.8	31.3	.1	9.4
1947 ⁷	118.6	13.4	5.9	52.1	37.1	.1	10.0

¹Gross receipts including penalties and interest less actual amounts refunded during fiscal year.

²See Table 2.

³See Table 3.

⁴See Table 4.

⁵See Table 5.

⁶Total amount of the locally collected property tax for general state purposes, for capitol ground extension (from 1920-25), for soldier bonus bond redemption (from 1923-44), and the equipment tax on transportation companies.

⁷Subject to revision.

SOURCES: Iowa State Budget (biennial); Report of the Treasurer of State (biennial); Iowa Auditors' Report (biennial).

the general sales tax, the tobacco and liquor revenues. In recent years, these taxes have comprised 40 per cent of total state taxes. As is apparent from Table 4, the sales tax in particular has been sensitive to price and volume changes in consumer expenditure thus giving the core of the state's revenue system an automatic flexibility to changes in economic conditions. Liquor revenues may be expected to exhibit much of the same kind of flexibility now that wartime shortages are being eliminated.

The highway user taxes are both consumption and business levies but have been so nearly earmarked for a special use that they are segregated in Table 5. In Iowa, as in the majority of states, the total of these revenues may be regarded as fees for the use of state constructed and maintained roads.

The levy on personal income is the principal direct tax in the Iowa system. It differs from the general sales tax because of the personal exemptions and the inclusion in the tax base of expenditures for services and the amount of savings. This tax was introduced in 1934, the exemptions doubled in 1938, and the net amount due was reduced by 50 per cent during the income years 1942 to 1946. Full rates will apply for the income year of 1947. The tax is not an important revenue yielder since it has brought in only eight per cent of state revenue in recent years. The acts of the Iowa legislature in these years indicate a preference for sales taxation over personal income taxation.

The state poll tax of two dollars on persons of 21 years of age and over, is almost an anomaly in modern state fiscal practice, but was applicable for two years only (1935 and 1936), and earmarked for old age assistance administration. Recent collections are from delinquencies and penalties.

The payroll tax also has a direct effect upon the expendable income of individuals though its incidence is less certain and by some thought to fall in varying proportions on business, consumers, and employees. This tax is often excluded in the treatment of state taxes because of the earmarking for unemployment compensation and its relation to the Federal Social Security Act.

IOWA REVENUES COMPARED TO OTHER STATES

The components of the state tax system in Iowa not only typify the taxes common to every state revenue system but also illustrate a wide variety of important alternative levies that states have adopted to cope with pressing revenue demands. Thus, in common with all states Iowa taxes motor fuel, motor vehicles, alcoholic beverages, inheritances, and insurance companies; it derives minor revenues from licenses and privilege taxes on corporations and selected occupations.

Iowa rates of tax for the levies in universal use by the states are roughly comparable to the average for all of the states. The Iowa tax on motor fuel used on the highways,

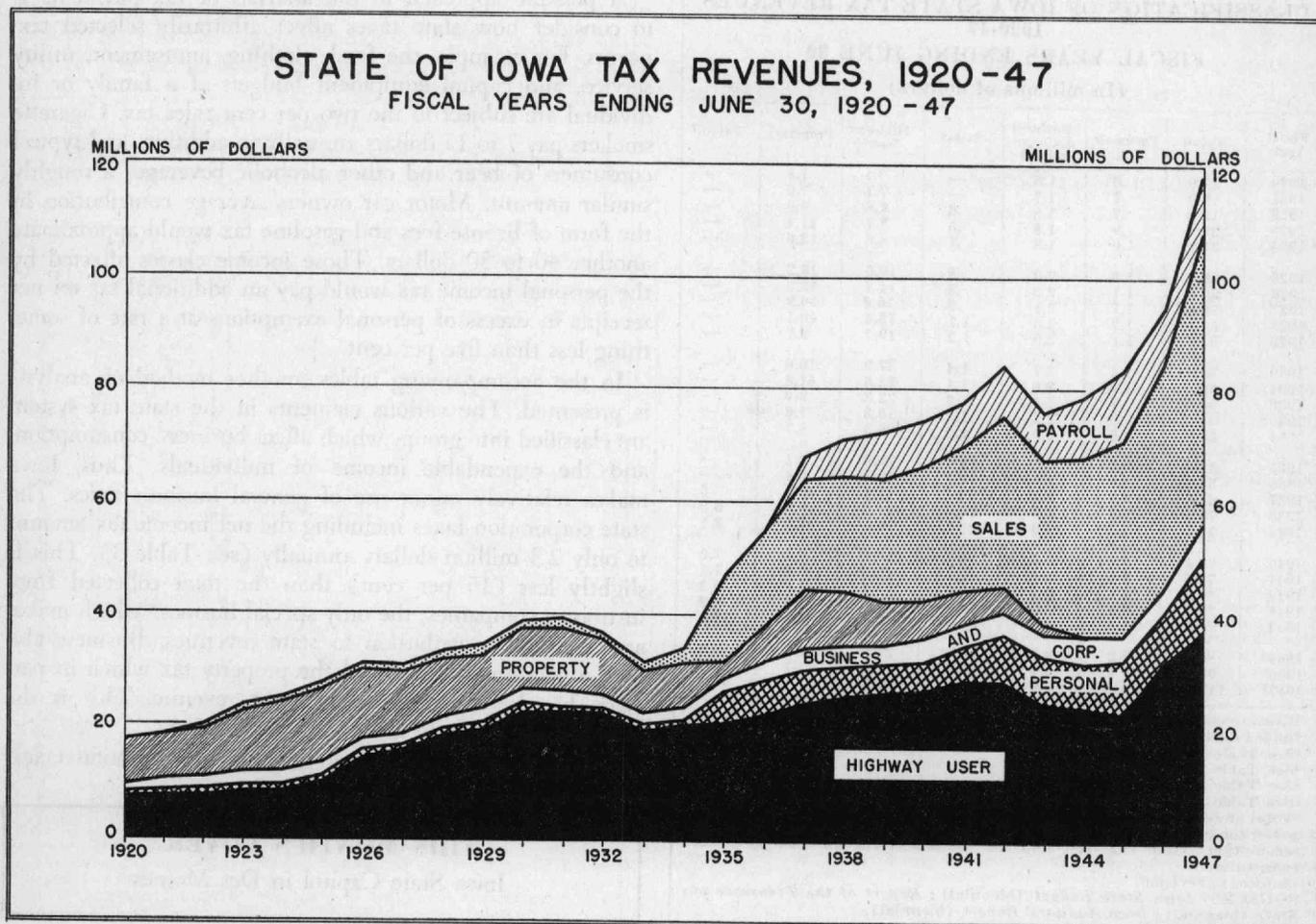


TABLE 2
PERSONAL TAXES 1920-47
FISCAL YEARS ENDING JUNE 30
(In millions of dollars)

Fiscal Year	Total	Income ¹	Inheritance	Poll
1920.....	.6	—	.6	—
1921.....	.7	—	.7	—
1922.....	.7	—	.7	—
1923.....	.9	—	.9	—
1924.....	1.0	—	1.0	—
1925.....	1.0	—	1.0	—
1926.....	1.1	—	1.1	—
1927.....	1.1	—	1.1	—
1928.....	1.2	—	1.2	—
1929.....	1.1	—	1.1	—
1930.....	1.2	—	1.2	—
1931.....	1.0	—	1.0	—
1932.....	.8	—	.8	—
1933.....	.9	—	.9	—
1934.....	.9	—	.8	.1
1935.....	5.5	1.8	1.3	2.4
1936.....	5.8	3.2	1.1	1.5
1937.....	5.9	4.0	1.0	.9
1938.....	5.4	3.9	1.1	.4
1939.....	5.3	3.5	1.5	.3
1940.....	5.2	4.0	1.0	.2
1941.....	6.4	4.6	1.6	.2
1942.....	8.7	7.0	1.5	.2
1943.....	8.5	6.8	1.5	.2
1944.....	8.3	6.4	1.7	.2
1945 ²	9.2	6.8	2.2	.2
1946 ²	8.8	6.4	2.2	.2
1947 ²	13.4	10.4	2.8	.2

¹Including receipts from non-residents.
²Subject to revision.

for example, is at the rate of 4 cents per gallon compared with the nationwide average of 4.2 cents per gallon. Iowa registration fees for trucks, busses, and private passenger vehicles averaged \$17.06 per vehicle in 1945 compared to the United States average of \$14.19. The somewhat higher than average level of registration fees is due to the use of the license as a substitute for the personal property tax as well as a highway user tax. For passenger vehicles to which this arrangement applies, the in lieu portion of the registration fee is based on the value; the user element is based on weight. This treatment of motor vehicles is not unique in Iowa but may hardly be said to be in general use.

In its business taxes, Iowa's levy of two per cent on gross premiums of insurance companies compares favorably with those in other states. Iowa taxes payrolls for unemployment compensation insurance as other states. In 1945, the average rate for employers was 1.4 per cent compared to a United States average of 1.7 per cent.

In the sales tax field Iowa taxed malt beverages at a rate

¹The states use two methods of taxing alcoholic liquors. About two-thirds of them license private distillers, importers, and distributors and collect from these agents a flat rate tax per gallon of spirits sold within the state. The other states make the sale of liquor a state monopoly, either selling directly to consumers through state operated retail stores or acting as the sole distributing agent for private retailers. While a variety of practices are in use, the tax in the monopoly states is imposed by determining the markup on cost of merchandise. The markup usually covers the cost of operation and the desired level of taxation. The net profits of the entire undertaking are a proximate measure of the tax equivalent. Iowa is one of the monopoly states, and the equivalent tax in 1945 was \$3.04 per gallon compared to an average for all monopoly states of \$3.27 per gallon. Legislation adopted at the 1947 session of the Iowa General Assembly increasing the markup may affect the rate equivalent by raising it as much as one-third. The comparison with rates in the licensing states is far less favorable to Iowa as the average of these rates is only \$1.21 per gallon. Such a comparison is subject to a variety of qualifications, however, including the effect of operational economies of a state monopoly, purchasing advantages, business and property tax exemption, minimum promotional expense, and the fact that the monopoly states in effect impose an ad valorem levy rather than a specific tax, i.e., their tax is proportional to quantity and quality rather than quantity alone as is the case in the licensing states.

of \$1.24 per barrel until recently (The rate is now \$2.48.) compared to an average of all the states of \$1.52 per barrel and a Federal rate of \$8.00 per barrel.¹

In an enumeration of the features of the Iowa state tax system that are characteristic of all or most of the states, the diminishing role of the property tax as a source of state revenue merits attention. A fourth of the states, including Iowa, have given up the property tax entirely, another fourth now receive less than five per cent of their revenue from this source, and in only a few states does the levy amount to as much as 15 per cent. Unlike other states which have given up the property tax, Iowa uses revenues from other taxes to reimburse localities for the loss in local property taxes as a result of the homestead exemptions. (The credit is limited to a rate of 2.5 per cent and to an assessed valuation of \$2,500.) In 1947, these payments have aggregated 16 million dollars. In 1945, a similar credit device was applied to agricultural lands, and in 1947, to property owned by veterans. Thus, certain classes of property owners have been freed of all or a substantial portion of their local taxes.

Iowa uses four major sources of state tax revenue that are not common to all of the states, namely taxes on personal net income, corporate net income, tobacco, and retail sales. The rates for all four of these taxes are comparatively modest. Personal net incomes are taxed at comparatively low rates in the top brackets, the graduation being from one to five per cent; however, the top rate applies to incomes of over \$4,000, which is a somewhat steeper progression than in the average state. Personal exemptions in Iowa are typical, being equivalent in the lowest brackets to incomes of \$1,000

TABLE 3
BUSINESS AND CORPORATION TAXES 1920-47
FISCAL YEARS ENDING JUNE 30
(In millions of dollars)

Fiscal Year	Total (All Business)	Total	General Business		Special Business		
			Net Income	Incorporation Fees	Total	Insurance	All Other ¹
1920	1.5	.2	—	.2	1.3	1.0	.3
1921	1.7	.2	—	.2	1.5	1.1	.4
1922	1.8	.2	—	.2	1.6	1.1	.5
1923	1.8	.2	—	.2	1.6	1.1	.5
1924	1.8	.1	—	.1	1.7	1.2	.5
1925	2.0	.2	—	.2	1.8	1.2	.6
1926	2.2	.2	—	.2	2.0	1.4	.6
1927	2.1	.1	—	.1	2.0	1.4	.6
1928	2.3	.1	—	.1	2.2	1.5	.7
1929	2.3	.1	—	.1	2.2	1.6	.6
1930	2.7	.4	—	.4	2.3	1.6	.7
1931	2.6	.2	—	.2	2.4	1.7	.7
1932	2.6	.1	—	.1	2.5	1.7	.8
1933	2.2	.1	—	.1	2.1	1.5	.6
1934	2.0	.1	—	.1	1.9	1.3	.6
1935	2.5	.4	.3	.1	2.1	1.4	.7
1936	3.1	.6	.5	.1	2.5	1.6	.9
1937	3.7	.8	.7	.1	2.9	1.8	1.1
1938	3.6	1.0	.9	.1	2.6	1.6	1.0
1939	3.4	1.0	.8	.2	2.4	1.7	.7
1940	3.8	1.0	.9	.1	2.8	1.7	1.1
1941	3.8	1.1	1.0	.1	2.7	1.8	.9
1942	3.8	1.2	1.1	.1	2.6	1.8	.8
1943	3.9	1.3	1.2	.1	2.6	1.8	.8
1944	4.3	1.5	1.3	.2	2.8	2.0	.8
1945 ²	4.1	1.4	1.2	.2	2.7	2.0	.7
1946 ²	4.7	1.5	1.3	.2	3.2	2.3	.9
1947 ²	5.9	2.3	2.1	.2	3.6	2.7	.9

¹Includes licenses and fees required of specified businesses (e.g., banking, insurance, and real estate brokers), chain store taxes (in 1935 and thereafter), miscellaneous inspection fees, and occupational licenses.

²Subject to revision.

for single persons and \$1,500 for married persons and \$500 for dependents.

The Iowa corporation income tax rate of two per cent is one of the lowest in the United States. Only Maryland has a lower rate (1.5 per cent), and 24 of the 31 states levying corporate income taxes have higher rates including 10 with rates of five per cent or more. The Iowa tax is a proportional one as are those in most of the states although there are six jurisdictions in which the rates are progressive up to as much as \$25,000.

The Iowa retail sales tax of two per cent applies to sales of tangible personal property, utility services, and admissions. Wholesalers and service industries are exempt. A tax on retail sales of tangible personal property is found in a little more than half the states, and in most of these the rate is two per cent. Three states use a three per cent rate and two a rate of one per cent. Utility services are excluded from the tax base in several states, and admissions are a part of the base in less than ten states. Thus, while the rate of tax in Iowa is typical, the definition of the tax base is somewhat broader than usual. Iowa also levies a use tax, a practice deemed necessary to forestall avoidance operations on certain transactions in nearly all of the sales tax states.

The Iowa rate on cigarettes is 2 cents per package compared with an average rate for all states using this tax of 3.8 cents and a Federal rate of 7 cents. Iowa imposes two taxes that are not important revenue yielders and are limited

TABLE 4
SALES TAX REVENUES 1920-47
FISCAL YEARS ENDING JUNE 30
(In millions of dollars)

Fiscal Year	Total	General Sales & Use	Cigarette	Beer	Liquor Store Earnings ¹	All Other ²
1920	—	—	—	—	—	—
1921	—	—	—	—	—	—
1922	.6	—	.6	—	—	—
1923	.6	—	.6	—	—	—
1924	.7	—	.7	—	—	—
1925	.8	—	.8	—	—	—
1926	.8	—	.8	—	—	—
1927	.9	—	.9	—	—	—
1928	1.1	—	1.1	—	—	—
1929	1.3	—	1.3	—	—	—
1930	1.4	—	1.4	—	—	—
1931	1.4	—	1.4	—	—	—
1932	1.2	—	1.2	—	—	—
1933	1.2	—	1.1	.1	—	—
1934	1.9	*	1.2	.7	*	—
1935	14.7	11.3	1.3	1.0	1.0	.1
1936	16.7	13.4	1.5	1.1	.6	.1
1937	19.7	15.0	1.6	1.3	1.6	.2
1938	20.6	15.6	1.7	1.2	1.9	.2
1939	21.8	15.7	1.8	1.2	2.3	.3
1940	23.4	16.7	2.2	1.2	3.0	.3
1941	25.3	18.4	2.1	1.1	3.4	.3
1942	30.0	21.5	2.4	1.1	4.6	.4
1943	28.9	20.5	2.4	1.2	4.2	.6
1944	31.3	22.6	2.7	1.4	3.9	.7
1945 ³	34.2	25.6	2.2	1.4	4.1	.9
1946 ³	39.8	29.8	3.5	1.6	4.1	.8
1947 ³	52.1	41.1	4.2	1.6	4.4	.8

¹Net earnings reported from the operation of state liquor stores less reimbursement to General Fund of .1 million in 1935 and .4 million in 1936; transfers for General Fund purposes from these earnings as follows: 1.5 million in 1937, 2.1 in 1938, 2.6 in 1939, 3.0 in 1940, 3.5 in 1941 and in each year thereafter.

²Includes individual liquor permit fees, oleomargarine taxes beginning in 1939, butterfat taxes beginning in 1942, and commercial feed taxes beginning in 1946.

³Subject to revision.

*Less than \$50,000.

TABLE 5
HIGHWAY USER REVENUES 1920-47
FISCAL YEARS ENDING JUNE 30

(In millions of dollars)

Fiscal Year	Total	Motor Fuel	Motor Vehicle License & Operators ¹	Common & Contract Carriers ²
1920	7.1	—	7.1	—
1921	7.7	—	7.7	—
1922	7.8	—	7.8	—
1923	8.7	—	8.7	—
1924	8.8	—	8.8	—
1925	10.0	.6	9.4	—
1926	14.4	4.6	9.7	.1
1927	15.6	5.4	10.1	.1
1928	18.4	8.1	10.2	.1
1929	19.7	8.5	11.1	.1
1930	22.9	10.0	12.7	.2
1931	22.6	10.8	11.6	.2
1932	22.3	10.2	11.9	.2
1933	19.3	9.0	10.0	.3
1934	20.3	10.4	9.6	.3
1935	20.8	11.2	9.3	.3
1936	22.8	11.8	10.6	.4
1937	24.4	12.8	11.1	.5
1938	25.5	13.1	11.9	.5
1939	26.1	13.8	11.8	.5
1940	26.7	14.3	12.0	.4
1941	28.5	14.9	13.3	.3
1942	28.2	15.0	12.9	.3
1943	24.2	12.9	11.9	.4
1944	23.5	11.0	12.1	.4
1945 ³	22.8	11.1	11.4	.3
1946 ³	31.3	19.0	12.0	.3
1947 ³	37.1	22.6	14.1	.4

¹Total amount of locally collected motor vehicle licenses except 50 cents per vehicle retained by county treasurer; shown in actual or estimated year of collection. Includes fees paid by truck drivers (1930 and thereafter), chauffeurs and operators (1932 and thereafter), automobile drivers (1935 and thereafter), and miscellaneous fees collected by the motor vehicle department.

²Consists of the weight taxes (1926-40) and the compensation tax (1941 and thereafter).

³Subject to revision.

in use, namely a tax on oleomargarine and chain stores.

Among the minor levies that other states use and that are not found in the Iowa system are a gift tax to supplement the inheritance tax, a general tax on wholesalers, on parimutuels, a special tax on soft drinks, and a severance tax on natural resources. Some of these levies could not be profitable in a state with Iowa's economic characteristics, and those which might be suitable are not generally important revenue producers.

Historically Iowa has not been in the vanguard of states adopting new tax forms and diversifying its revenue system. Though one of the first states to impose motor vehicle licenses (1904) and to enact a tobacco tax (1921), Iowa generally has awaited the result of testing and experimentation by other states before adopting new taxes. It was the thirty-second state to adopt a motor fuel tax (1925), the sixteenth a sales tax (1934), and the twenty-eighth an income tax (1934). The liquor taxes were adopted in the first year after the repeal of the prohibition amendment, a development common to over half the states.

In summary, the Iowa tax system is extremely diversified with typical to moderate rates and devised to tap the maximum number of tax sources without the stimulation to avoidance and evasion inherent in a less diversified system with higher rates. The Iowa system has many components common to tax systems of neighboring states and no doubt has developed with deference to the tax laws of nearby areas.

Banks Increase Share of Urban Mortgage Financing

Lender Caution Reported Growing

With their urban residential mortgage portfolios currently more than 70 per cent above mid-1945 levels, commercial banks in the Seventh Federal Reserve District as well as in the nation have more than regained the ground lost to other types of lending institutions during the war. This growth in bank mortgage lending has been achieved in a period characterized by the fastest rising over-all dollar volume of urban residential mortgages outstanding in the country's history, over six billion dollars on one to four family units alone since V-J Day. Central reserve and reserve city member banks have shown greater postwar activity in residential mortgage lending than country banks. Variations also exist within each group; Detroit banks, for example, are experiencing considerably greater rises than Chicago banks.

Competitive pressures of lenders with large supplies of loanable funds thus far have more than offset the strong demand for home loans with the result that mortgage financing terms are now commonly easier than at V-J Day. In general, interest rates and down payment requirements have moved downward, appraisal values upward, and maturities have lengthened.

Considerable further expansion in mortgage financing is anticipated during the next year, but there is some evidence that banks, along with most other lending institutions, are beginning to exercise increasing caution in advancing funds on urban real estate. There is rising doubt over the longer-run prospects for maintaining present levels of home prices and income payments upon which current mortgages are based. Mortgage terms have tightened somewhat in recent

months, but no sharp reversal in the trends cited earlier has occurred or seems likely in the next several months.

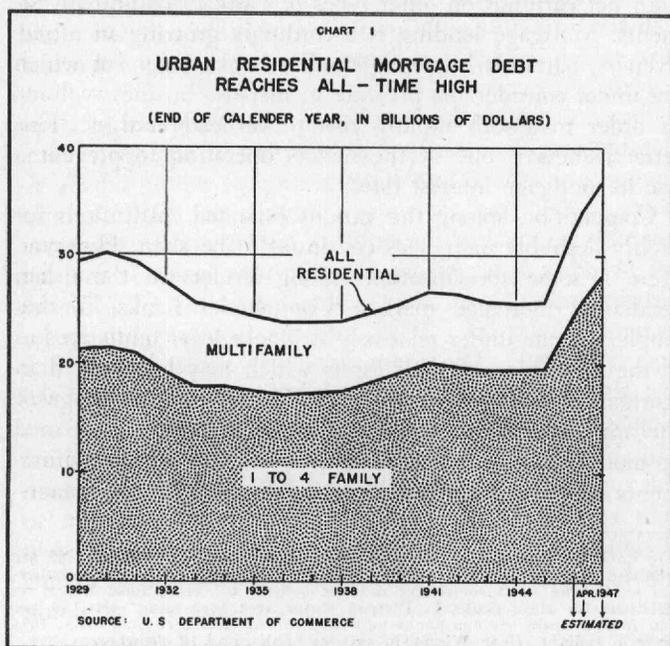
URBAN MORTGAGE GROWTH

Carried along by the postwar real estate boom, the over-all volume of outstanding urban residential mortgage debt is now estimated to be in excess of 33 billion dollars, at least 10 per cent above the previous 1930 peak and more than 30 per cent above the V-J Day level. About 26 billion dollars, or 75 per cent of this total, represents mortgages on one to four family dwellings. Multifamily units account for the remainder (see Chart 1). Mortgages on all types of residential buildings are expected to continue to rise during the remainder of 1947, although at a lesser rate than in 1946, because of the slowing down in new building starts. Increases in one to four family-unit debt are estimated from three to four billion dollars for 1947 compared with almost five billion dollars in 1946. This anticipated volume is still considerably in excess of the two billion dollar annual increments during the much discussed "building boom" of the 1920's.

In the first four months of the current year, one to four family-unit debt rose 1.5 billion dollars above its 1946 close of 24.6 billion dollars. Available data on recordings reveal that mortgage activity in the Seventh Federal Reserve District since V-J Day has closely paralleled that in the nation.

When measured against consumers' disposable income (i.e., after taxes), the volume of urban residential mortgage debt appears surprisingly low even after many months of postwar boom. Urban real estate mortgages now approximate 21 per cent of disposable income and except for the war years are at their lowest relative level since 1920. With disposable income now roughly at 155 billion dollars, the volume of home debt could advance 75 per cent before equaling the average for the prewar decade. Should disposable income decline, however, from present abnormally high levels, this proportion will rise correspondingly.

The causes for the boom in real estate mortgages are the causes for the boom in urban real estate, one stage removed. They include the wartime increase in population and in the number of families, the increased rate of urbanization of the population, and the high income levels which enabled many people to satisfy their desires for more housing space both owned and rented. The establishment and maintenance of rent controls contributed to a shortage of rental housing at the prewar rent levels adhered to generally until July 1947, forcing many families, particularly migrants and returning veterans, into the market for owned housing. A "free" market in owned housing has continued throughout the war and postwar periods, in which prices have risen sharply due to increased buyers' incomes, rising construction costs, and



the artificial scarcity of rental units. The rise in the percentage of owner-occupied housing from 41 in 1939 to 51 in 1945 and considerably higher at the present time, coupled with increased turnover of ownership, has also led to increased demand for urban residential mortgages.

The major purpose of postwar residential mortgage financing to date has been the purchase of existing homes rather than the construction of new ones. Mortgage loans of savings and loan associations made in 1946, for example, were over four-fifths and less than one-fifth, respectively, in these two categories. Loans for repairs, refinancing, and miscellaneous other purposes were comparatively unimportant. A survey made by the United States Savings and Loan League, covering only loans made under the Servicemen's Readjustment Act (G.I. Bill of Rights) by savings and loan associations throughout 1946, showed only 14.6 per cent of veterans' loans to have been for new construction in the nation as a whole. This percentage, however, approached 50 in the West and Southwest. The proportion of total mortgage recordings accounted for by new construction is now tending to rise in all sections of the nation as more housing is completed and offered for sale.

Government underwriting commitments have aided in supporting the large postwar mortgage volume, although many of the insured or guaranteed loans undoubtedly would have been made without Government backing. Of the 26 billion dollars of mortgage debt estimated as outstanding on one to four family units at the end of April 1947, about 8 billion dollars, or 30 per cent, were insured or guaranteed by the Federal Government, approximately 4.5 billion dollars, 17 per cent, were insured by the Federal Housing Administration (FHA), and 3.5 billion dollars, 13 per cent, were guaranteed by the Veterans' Administration (VA) under the G.I. Bill of Rights.

The influx of veterans on the housing market since V-J Day has expanded the relative share of VA-guaranteed mortgages in new recordings and contracted that of FHA-insured mortgages, so that these percentages differ appreciably from the respective shares of these two agencies in the total mortgage debt. The FHA portion of current urban recordings is under five per cent compared with almost one-fifth before the war.

Sharply increased real estate prices and more lenient appraisal values and down payment requirements have expanded the postwar dollar volume of mortgages at a faster rate than their number. The average size of new and refinanced mortgages of \$20,000 and under recorded on non-farm homes has risen from \$2,722 in 1939 to \$3,440 in 1945 and \$4,206 in 1946. The rise has been 55 per cent for the entire war and postwar period and 22 per cent in the last year.

BANKS IMPROVE COMPETITIVE POSITION

The rapid postwar rise in bank real estate lending follows a period of wartime decline in which the general public took advantage of increased incomes to reduce mortgage and other indebtedness. The recent upsurge in bank-held home debt, however, appears to be more than the expected conse-

quence of the real estate boom. Between June 1945 and March 1947, commercial banks increased their share of non-farm mortgage recordings in the Seventh Federal Reserve District states from 23 to 28 per cent. In the nation, this increase was even greater, from 19 to 27 per cent. During the same period the share of savings and loan associations in the Seventh District states declined from 43 to 37 per cent. A more detailed picture of trends of these and other lenders is shown in Chart 2. Since banks in the prewar period accounted for approximately one quarter of all non-farm mortgage recordings, the postwar trend among mortgage lenders is in part a restoration of prewar patterns.

Outstanding urban residential mortgage loans of Seventh District member banks on December 31, 1946, were 62 per cent above their June 1945 level. Although considerable, this rise was less than in *all* real estate loans, 65 per cent, or in commercial and industrial loans, 85 per cent. Within the urban residential mortgage category, Seventh District member banks in the larger cities showed increases of 70 per cent compared with 55 per cent in the small cities and towns. Housing shortages, it is well known, have been particularly acute in heavily populated areas.

Not only has a substantial volume of bank funds been used in building and buying urban homes since the war, but the resultant mortgages have proved attractive investments for banks. Urban residential mortgage loans are among the highest earning bank assets, despite relatively high costs of acquisition and servicing. Some recent studies indicate that FHA-insured first mortgage loans can be expected to earn about 4.5 per cent *gross* and 3.7 per cent *net* for the typical commercial bank, whereas the conventional uninsured mortgage averages 4.3 per cent *gross* and 3.3 per cent *net*. Other estimates, making greater allowance for possible delinquency and foreclosure costs and bad debt losses, suggest that a spread of from 1.25 to 1.50 per cent may be more appropriate over the long run. However conservatively estimated, the net figure is high when compared with net earnings on other types of bank loans and investments. Mortgage lending is accordingly growing in attractiveness, particularly among smaller banks, many of which are under considerable pressure to increase business volume in order to absorb rapidly rising overhead charges. This attractiveness is one of the factors operating to prevent a rise in mortgage interest rates.

Competition among the various financial institutions for highly desirable mortgages continues to be keen. However, there is some specialization among lenders in the urban residential mortgage market. Commercial banks, for example, operate under relatively stringent legal limitations as to the proportion of their assets which may be invested in mortgages. Also subject to regulation is the percentage of the appraised value of the property which may be loaned on mortgage security and the loan maturity.¹ These requirements have been generally waived for FHA-insured mort-

¹For national banks the maximum loan-value ratio and maturity are 60 per cent and 10 years, respectively. Illinois state banks and Wisconsin commercial banks and trust companies are not subject to restrictions. Other restrictions for state banks in District states are: loan-value ratio, 70 per cent in Wisconsin savings banks and 60 per cent elsewhere; maturity, 16½ years in Indiana, 15 in Wisconsin savings banks, and 10 elsewhere.

gages under the National Housing Act and for loans under the so-called G.I. Bill of Rights. As a result, it is not surprising to find many banks tending to specialize in FHA-insured mortgages.

Banks characteristically make mortgage loans to persons with whom they have a customer-deposit relationship. Consequently, bank mortgage portfolios tend to include the home debt of above average income recipients to a greater extent than is true for most mortgage lending competitors.

POSTWAR MORTGAGE MARKET

In spite of strong demand, the postwar urban residential mortgage market to date has been characterized generally by falling interest rates and easing lending terms. Wartime expansion in liquid assets and other investible funds during the war period coupled with the repayment of outstanding prewar mortgage indebtedness have been leading factors in producing an abundance of money available for lending. Government guarantees under the G.I. Bill and under the Defense Housing provisions of the National Housing Act, combined with the authorization of agencies like the FHA which enables lenders to pool their risks on an insurance basis, have operated to increase the willingness of lenders to part with liquidity at moderate interest rates. It is recognized, nevertheless, that the influence on interest rates of such guarantees has declined in recent years primarily because the mortgage default rate has reached virtually rock bottom. Non-farm real estate foreclosures numbered only

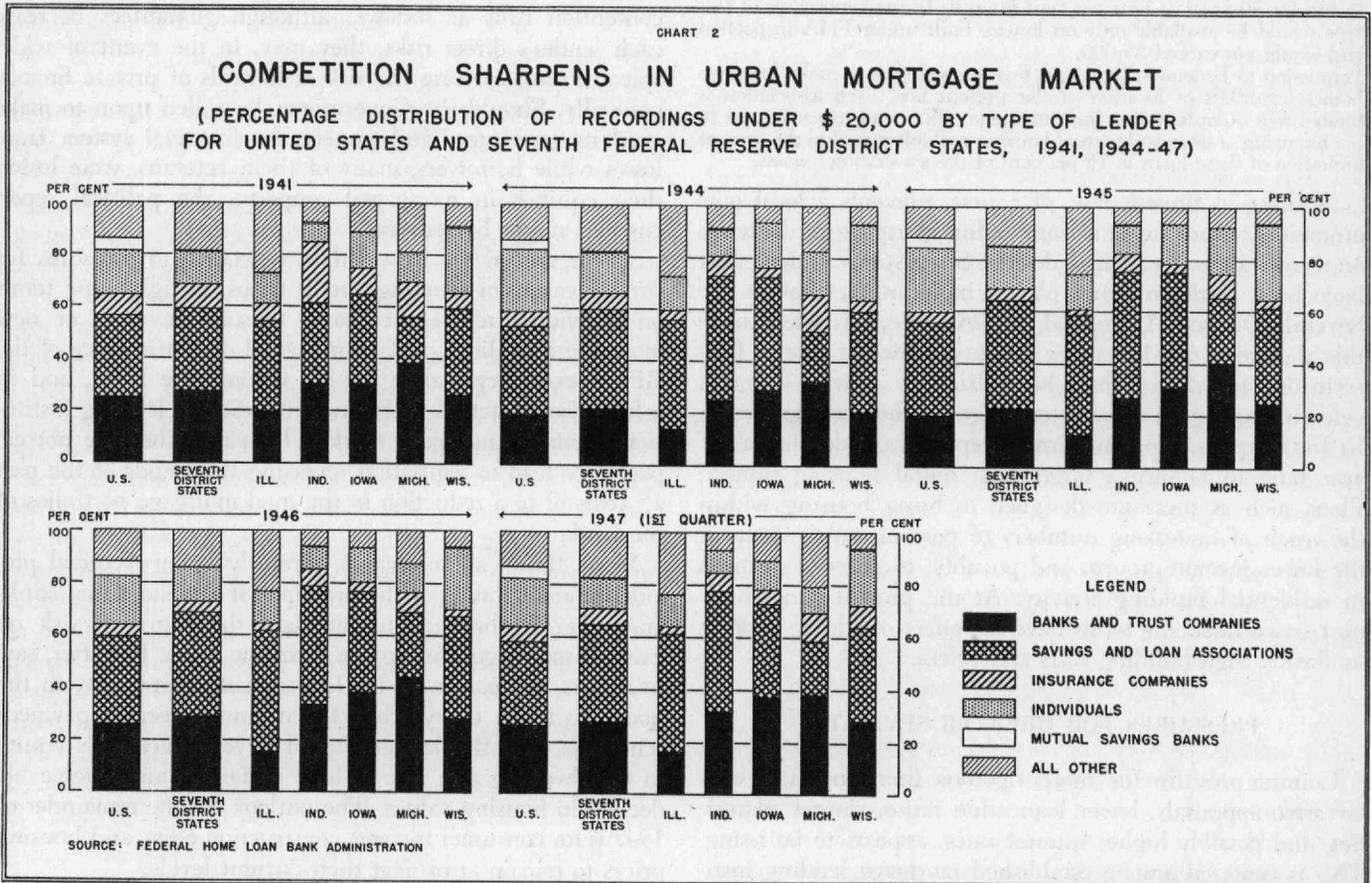
12,000 in 1946, the low point of the existing series which runs back to 1936. This figure represents declines of 88 and 99 per cent, respectively, below 1939 and the depression year of 1933.

The downward trend in long-run interest rates during the 1930's continued through the war period, when net mortgage debt was being reduced by repayments, and even through the greater part of 1946, after the demand for new financing rose to its current record level. In most sections of the country, however, interest rates are now believed to have reached a postwar minimum. In recent months, a continuing downward pressure is noticeable only in the East. The National Association of Real Estate Boards reported in March that mortgage interest rates are steady in 85 of a sample of 100 American cities analyzed, falling in 10 cities and rising in five.

PRESSURE FOR EASIER TERMS

Financing is the only major element in housing costs which has fallen in price over the past 15 years. The trend in mortgage interest rates is in sharp contrast with the movement of building materials prices, land costs, and labor costs over the same period. Not only are interest rates lower, but the maturity of mortgages is generally longer, and borrowers have been able to obtain higher loan-value ratios.

There is considerable pressure designed to ease terms still further in order to enable more people to buy homes, especially new ones, at current high building costs and sale



prices. Real estate interests, particularly speculative builders who have encountered buyers' resistance, are outspoken in this connection, and their position is seconded by some veterans' groups.

These individuals and groups commonly wish terms eased in one or more of four ways:

1. Greater relaxation of appraisal standards to reflect present costs and selling prices rather than past "normals." This proposal may imply belief that housing costs and prices will not fall materially below their mid-1947 levels, or un-concern on the seller's part as to the future course of values.

2. Raising of the maximum loan-value ratios to reduce the initial borrower's equity required. In this connection, reversal in the first few months of 1947 of a six-year rising trend in average size of recorded mortgages is reported. Such a development reflects in part a tendency of lenders to require larger cash payments as initial borrower's equity and in part the gradual decline in the prices of many old houses.

3. Lengthening the maximum term of guaranteed and insured mortgages to bring the borrower's monthly payments more in line with his monthly income.

4. Further shaving of interest charges, which appears to be relatively unimportant to many persons because of the small influence of interest rate changes on the amount of the monthly payment on a long-term mortgage.

The Taft-Ellender-Wagner Bill brings together at the Federal level the principal proposals for liberalization of mortgage credit for home financing. These provisions are:

Permission to the Federal Housing Administration to insure loans for as much as 95 per cent of the value of residential property, the loans to run for 30 years at four per cent interest. Insured mortgage of this type would be available only on houses built under FHA inspection and would not exceed \$5,000.

Permission to Federal savings and loan associations to make loans on homes regardless of location—under present law, each association is limited to a 50-mile radius from its home office—and to participate in the financing of large-scale rental housing without regard to the present limitation of these loans to 15 per cent of the association's assets.

Nothing in present law, of course, prevents a local government or a private firm from easing mortgage credit terms on its own initiative, if it so desires. Suggestions to this effect have been made in many places, including several in the Seventh District. A proposal, for example, has been made that the credit of Milwaukee County, which is able to float securities at 1.5 per cent, be utilized to provide low-cost veteran housing on 40-year mortgages at the same low rates. In Indianapolis, a private firm is reported considering a 60-year term to finance a large scale rental housing project. Plans such as these are designed to bring housing within the reach of increasing numbers of persons, particularly in the lower income groups, and possibly, to prevent a slump in residential building activity. At the present time, however, eased financing terms have the effect of adding support to already high building costs and prices.

PRESSURES FOR GREATER SEVERITY

Counter-pressure for more rigorous financing, i.e., conservative appraisals, lower loan-value ratios, shorter maturities, and possibly higher interest rates, appears to be rising. This is centered among established mortgage lending insti-

tutions.

Bankers and others who view with alarm the current pattern of long terms and high loan-value ratios point out that the present rates are easier than those of the first mortgages of the 1920's which led to so much trouble during the succeeding decade. Loans now made for 80 per cent of appraised value would have been made for 50-66⅔ per cent 25 years ago. Furthermore, the volume of high-rate, short-term second mortgage financing is down sharply so that the first mortgagee must now assume the higher marginal risks assigned in the 1920's to the second mortgagee, with results which will be remembered by many holders of second mortgages and second mortgage bonds.

Following the past history of the 18-20 year "building cycle," these bankers expect the construction volume, cost, and price of residential and commercial construction to turn sharply down in the early 1950's following satisfaction of the present volume of deferred demand. Many expect the downturn of the building cycle to correspond with a general business depression, as it did in 1929, with consequent disastrous effects on new building, vacancies, real estate values, and foreclosures. In depressed periods, the recent prosperity trends toward more rapid urbanization and toward a decreasing number of persons per room will probably be reversed, as well as the partially involuntary shift from home tenancy to home ownership.

The more pessimistic observers of the present mortgage market are inclined to discount the effectiveness of the various Government guarantees and mortgage-insurance schemes which were so conspicuously absent in the 1930's. Their contention runs as follows: although guarantees decrease each lender's direct risks, they may, in the event of widespread losses, increase the risk or hazards of private finance generally. Should the Government be called upon to make good its guarantees and protect the financial system from losses while borrowers, many of them veterans, were losing their equities in mortgaged property, the political repercussions might be serious.

These sentiments have led to resistance to pressures for further easing of mortgage-credit terms, to tightening terms on individual real estate loans, to some leveling of new mortgage recordings, to Congressional discontinuance of the RFC's secondary market for G. I. mortgage loans, and in a few cases to actual withdrawal of primary lending institutions from the mortgage market. However, they are not expected to lead to legislation reversing the trends of the past 15 years or to a reduction in the total mortgage portfolios of the banks.

Since almost all mortgages currently being recorded provide for amortization of the principal, it is evident that banks and other lending institutions face their greatest risk on existing mortgages during the next few years. For after, say, five years, the borrower should have sufficient equity in the house to make every effort to continue meeting payment schedules, and the lender should have reduced his equity in the dwelling at a rate at least as fast as any foreseeable decline in housing values. The outlook for the remainder of 1947 is for consumer income, construction costs, and housing prices to remain at or near their current levels.

THE FEED CROP SITUATION

(Continued from Inside Front Cover)

A detailed study of weather and corn yields from 1901-25 concluded "that the rainfall is the dominant feature of the weather influence on corn yields, but that other influences modify it."¹ The accompanying chart shows the relationship between yield per acre of corn and annual rainfall. During periods of normal or sub-normal precipitation yield of corn follows variations in rainfall quite closely. Fully as important as the total annual rainfall is the amount of rain during the growing season. Heavy precipitation may benefit or harm the corn crop depending upon such other factors as seasonal distribution of precipitation and temperatures. Since 1938, the effects of hybrid seed on corn yield are apparent. Also, there are indications that yield has been influenced less by precipitation since hybrid corn has been adopted generally.

Variations in date of the first killing frost in the fall appear to be random in character. Frosts have occurred earlier than normal in some years of soft corn crops. The soft crop of 1924, however, was not due to early fall frosts but to other factors. The season in 1924, similar to 1947, was very late, three weeks behind average at times.

Based on July 1 conditions, it appeared that the 1947 corn crop might total 2.6 billion bushels, compared with the 3.3 billion bushel crop last year and the 3 billion bushel crops which have been general since 1942. The indicated production, however, would be about equal to the 1936-45 average. The indicated yield per acre of 31.0 bushels is 6.1 bushels below last year but 1.6 bushels above average. The yield per harvested acre for Iowa was indicated at one-third below 1946 and a fifth below average. Yield prospects in Indiana are below average but in Illinois and Wisconsin are near average. Yields in most of the South Atlantic and South Central states are estimated considerably above average with prospects for the best crop in years. The estimated United States acreage for harvest of 84.3 millions is down about five per cent from 1946 and 6.4 per cent below the 10 year average. Ohio, Indiana, and Michigan fell shortest

of intended acreage while Illinois planted more than was intended last March.

SMALL OATS CROP IN PROSPECT

The 1947 oats crop (the most important feed grain excepting corn) was estimated as 1.2 billion bushels on the basis of July 1 conditions. This is 17 per cent less than 1946 production but seven per cent more than the 1936-45 average. Indicated production of one billion bushels in the North Central region, which includes the Seventh District states and is the principal oats producing area, is about 250 million bushels below the 1946 harvest.

A barley crop of 285 million bushels is in prospect, eight per cent larger than the 1946 crop and one per cent below average. The indicated yield per acre of 25.7 bushels is only slightly higher than last year but nearly three bushels above average. The acreage for harvest as grain is estimated at 11.1 millions, nearly 6 per cent larger than last year but 11 per cent below the 1936-45 average.

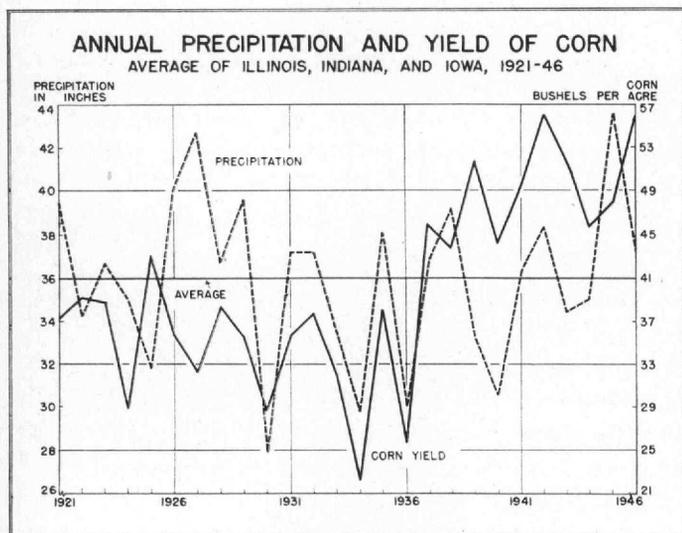
The tonnage of corn and oats on farms July 1 was about 11 per cent above the 1936-45 average and 28 per cent higher than a year ago with corn accounting for the entire increase. Stocks on farms were estimated at 688 million bushels of corn and 259 million bushels of oats.

The 1947 production of corn, oats, and barley, if July 1 estimates should materialize, would amount to about 99.7 million tons, compared with 122.4 million tons last year and the 99.0 million tons average for 1936-45. In addition to these grains, sorghum, wheat, and rye make some contribution to the feed grain supply. It appears that the 1947 wheat crop will be the largest ever produced. Rye prospects indicate production this year appreciably above 1946 but well below average. The acreage planted to sorghums is about 18 per cent below 1946 and over one-fourth below the 1936-45 average. Pastures are in good condition and hay production promises to exceed last year's harvest by three per cent.

The number of grain consuming livestock on farms probably will continue to decline through the coming year. Thus, some decline in total supply of feed grains would still leave a relatively large supply per animal unit. However, the relation between numbers of grain consuming animals and supplies of feed grains already has reached the point where livestock-feed price ratios are less favorable than during recent years and in some cases below the 1926-45 average. Below average livestock-feed price ratios cause farmers to economize on the use of grains in feeding livestock and result in curtailed production of livestock products.

Most reduction in livestock production, if a seriously short corn crop materializes, probably would occur in those kinds of livestock which require rations consisting largely of grain—hogs and poultry. Cattle and sheep are equipped with digestive tracts which will handle large quantities of hay and grass, and consequently would be reduced sharply in numbers only if poor pasture and hay crops occur. Supplies of livestock products during 1948 are now dependent to a significant degree upon good corn weather during August and a late killing frost this fall.

¹W. A. Mattice, "Weather and Corn Yields," *U.S. Monthly Weather Review*, March, 1931, p. 111.



SEVENTH FEDERAL



RESERVE DISTRICT

